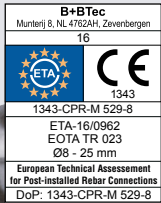




Hybrid Injection System with ETA Assessment for Post-Installed Rebar



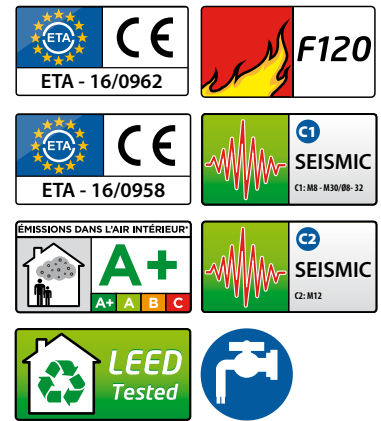
Use Conditions

- Installation in Reinforced and Un-reinforced Concrete C12/15 to C50/60. for Post Installed Rebar Ø8-32 mm
- For Hammer/Compressed Air drilled Holes
- Installation in Dry and Wet Holes
- Not to be installed in flooded holes.
- Fire Rated

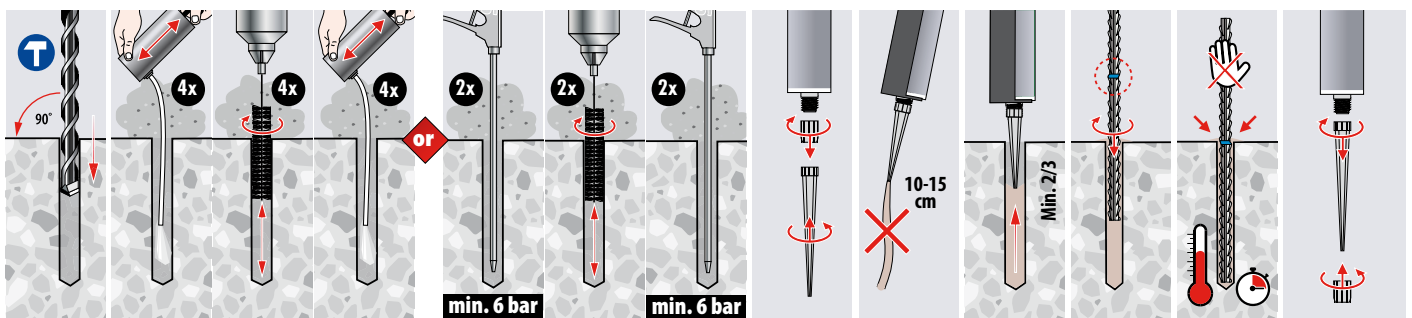
Typical Applications

- Infrastructure Construction (Roads, Viaducts, Harbours, High Rise Construction)

Approvals & Test Reports



Installation Procedures



1) Blow out with Hand Pump for Bore Hole Diameter $D_0 \leq 20$ mm, Bore Hole Depth $h_0 \leq 10 d_s$ only.

Curing Times²⁾

Temperature ³⁾	°C	-5 to -1	0 to +4	+5 to +9	+10 to +14	+15 to +19	+20 to +29	+30 to +40
Processing Time		50 min	25 min	15 min	10 min	6 min	3 min	2 min
Curing Time Dry Holes		5 h	3,5 h	2 h	1h	40 min	30 min	30 min
Curing Time Wet Holes		10 h	7 h	4h	2h	80 min	60 min	60 min

2) Cartridge Temperature must be between +5°C and +40°C. 3) Concrete Temperature



Minimum Concrete Cover

Drilling Method		d _s [mm]	Without Drilling Guide [mm]	With Drilling Guide [mm]
Hammer Drilling	HD	<25	30 + 0,06·ℓ _v ≥ 2d _s	30 + 0,02·ℓ _v ≥ 2d _s
		=25	40 + 0,06·ℓ _v ≥ 2d _s	40 + 0,02·ℓ _v ≥ 2d _s
Compressed Air Drilling	CD	<25	50 + 0,08·ℓ _v	50 + 0,02·ℓ _v
		=25	60 + 0,08·ℓ _v	60 + 0,02·ℓ _v

Design Values of Ultimate Bond Resistance²⁾ f_{bd} in N/mm²

Rebar	Concrete Class								
	C12/15	C16/20	C20-25	C25-30	C30/37	C35/45	C40/50	C45/55	C50/60
Ø8 - 32 mm	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3

Design Resistance Dry/Wet Holes (Post Installed Rebar Anchorage) N_{rd}

Rebar Size ▶	d _s	Ø10	Ø12	Ø16	Ø20	Ø24	Ø28	Ø32
▼ Embedment Depth ℓ_b								
142		10,3						
170		12,3	14,7					
190		13,7	16,5					
198		14,3	17,2					
213		15,4	18,5					
227		16,4	19,7	26,2				
255		18,4	22,1	29,5				
284		20,5	24,6	32,8	41,0			
298		21,5	25,8	34,5	43,1			
312		22,5	27,1	36,1	45,1			
340		24,6	29,5	39,3	49,1	59,0		
354		25,6	30,7	40,9	51,2	61,4		
397		28,7	34,4	45,9	57,4	68,9	80,3	
425		30,7	36,9	49,1	61,4	73,7	86,0	98,3
454		32,8	39,4	52,5	65,6	78,7	91,9	105,0
468		33,8	40,6	54,1	67,6	81,2	94,7	108,2
482		34,1	41,8	55,7	69,7	83,6	97,5	111,5
510			44,2	59,0	73,7	88,5	103,2	117,9
532			46,1	61,5	76,9	92,3	107,6	123,0
595			49,2	68,8	86,0	103,2	120,4	137,6
681				78,7	98,4	118,1	137,8	157,5
723				83,6	104,5	125,4	146,3	167,2
800				87,4	115,6	138,8	161,9	185,0
932					134,7	161,6	188,6	215,5
1000					136,6	173,4	202,3	231,3
1100						190,8	222,6	254,4
1200						196,7	242,8	277,5
1400							267,7	323,8
1600								349,7
2000								
N_{rd,s} Design Yield Load⁴⁾		34,1	49,2	87,4	136,6	196,7	267,7	349,7



INNOVATIVE SOFTWARE - ANCHOR DESIGN MADE EASY

- Innovative 3d visual user interface, ETAG-001 & SA TS 101:2015 compliant
- SEISMIC DESIGN under earthquake loads according to ETAG-001, Annex E, TR045
- Finite element analysis steel baseplate design

ICCONS® DesignFix Software is simple, intuitive and FREE to DOWNLOAD anchor design program for Design Engineers, Project Managers, Site Engineers and End Users. Complex mechanical or chemical heavy duty anchor arrangements can be calculated in minutes. All designs are ETA based and qualify under the newly released SA TS 101:2015 now directly referenced in the 2016 National Construction Code.

With input Freedom & 3D user Interface ICCONS® DesignFix offers complete

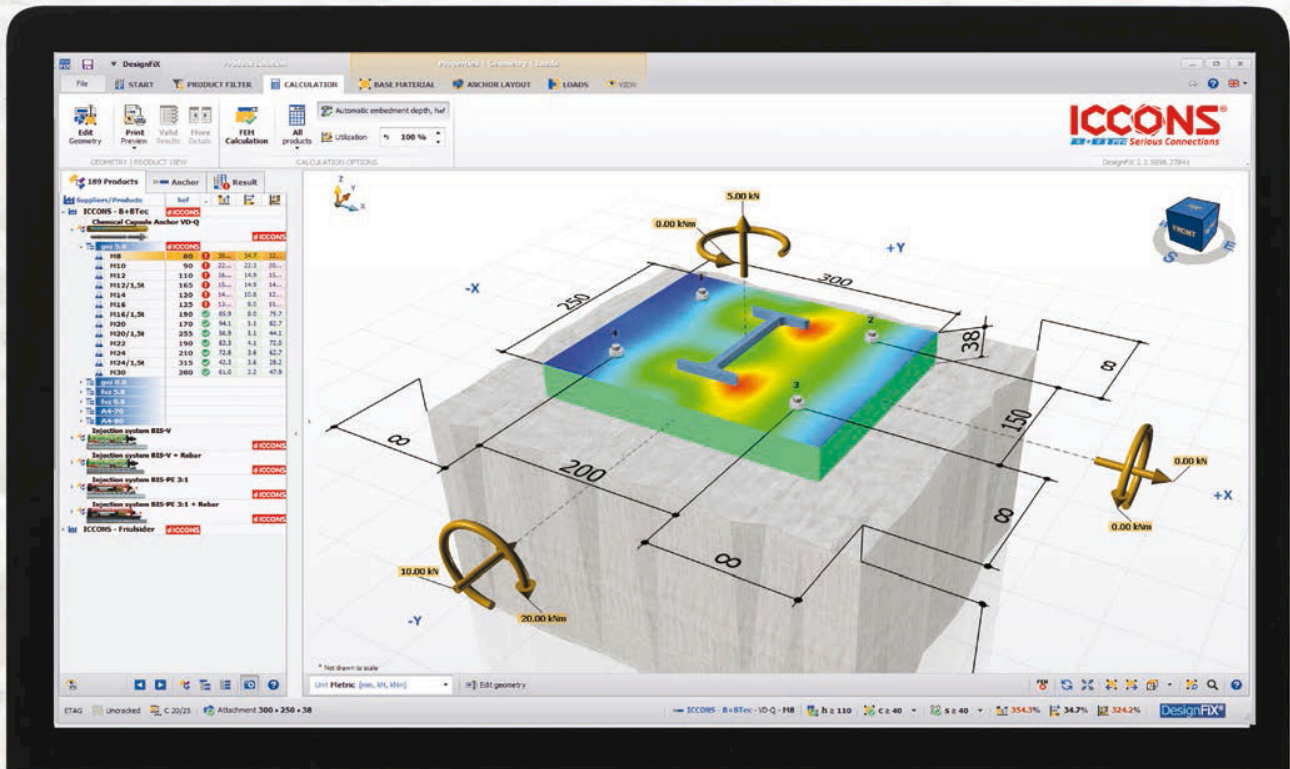
freedom to select an anchor pattern and base plate configuration, as well as the position and direction of load combinations. Changes are made directly into the 3D user interface.

Anchor Type Comparison

ICCONS® DesignFix displays the usability of the various anchor types (according to ETAG-001, Annex C, TR029), including the values for each load type. This allows you to compare the calculation result of the different anchor types in a single easy to read panel.

Optimum BIS Injection System Anchorage Depth when selecting a BIS Injection Mortar.

ICCONS® DesignFix allows for the automatic calculation of the most effective anchorage depth, taking in consideration the minimal and maximum values of the ETA. The integrated FEM-Calculation Method (Finite Element Method) in ICCONS® DesignFix allows you to calculate the base plate thickness based upon the stresses in the base plate combination with the base plate configuration.



FREE DOWNLOAD!

www.iccons.com.au

