HOLZ TECHNIC

TLL EVO

FLANGE HEAD STUD SCREW

VGZ EVO-HT

FULL THREADED TRUSS SCREW

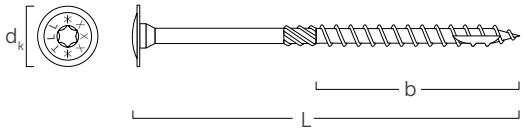
C4 EVO COATING | INCLUDED | CE ETA 11/0030

TLL EVO

FLANGE HEAD STUD SCREW

- The flange head serves as washer and ensures high tensile strength
- Approved for structural applications subject to stresses in any direction vs. the grain (α = 0° - 90°).
- Steel with superb yield and failure strength ($f_{y,k}$ = 1000 N/mm²)
- Tested C4-EVO coating for high corrosion resistance. Perfect for outdoor applications and treated timber

CODES AND DIMENSIONS



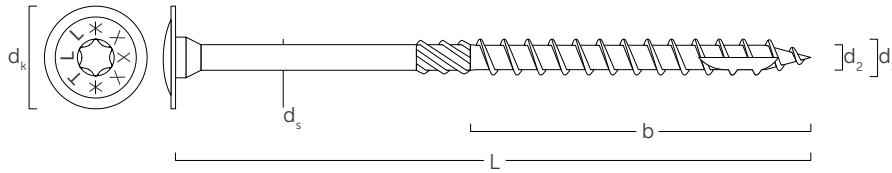
TLL EVO ANTI-RUST COATING CARBON STEEL

d_1 [mm]	d_k [mm]	*CODE*	L [mm]	b [mm]	A [mm]	
8 TX40	19	**TLLEVOB8100**	100	52	20	500
		TLLEVOB8120	120	80	40	500
		TLLEVOB8140	140	80	60	500

TLL EVO is also available in different sizes.

TLL EVO | FLANGE HEAD STUD SCREW

GEOMETRY AND MECHANICAL CHARACTERISTICS



nominal diameter	**d_1**	**[mm]**	**8**
head diameter	d_k	[mm]	19,00
tip diameter	d_2	[mm]	5,40
shank diameter	d_s	[mm]	5,80
pre-drilling hole diameter	d_v	[mm]	5,0
characteristic yield moment	$M_{y,k}$	[Nmm]	20057
characteristic withdrawal-resistance parameter	$f_{ax,k}$	[N/mm²]	11,7
characteristic head-pull-through parameter	$f_{head,k}$	[N/mm²]	10,5
characteristic tensile strength	$f_{tens,k}$	[kN]	20,1

DESIGN CAPACITIES

Joint Group	**TLL EVO Length**	**Design Uplift Capacity N_{dj} [kN]**				
		Wall Plate Thickness [mm]				
	[mm]	**35**	**45**	**70**	**80**	**90**
JD4	100	4,9	4,9	2,8	1,9	n/s
	120	7,2(*)	7,2(*)	4,7	3,8	2,8
	140	7,2(*)	7,2(*)	6,6	5,7	4,7
	160	7,2(*)	7,2(*)	7,2(*)	7,2(*)	7,2(*)
JD5	100	4,1	4,1	2,4	1,6	n/s
	120	5,4(*)	5,4(*)	3,9	3,1	2,4
	140	5,4(*)	5,4(*)	5,4(*)	4,7	3,9
	160	5,4(*)	5,4(*)	5,4(*)	5,4(*)	5,4(*)

(*) Failure of the head embedment of the screw.

GENERAL PRINCIPLES

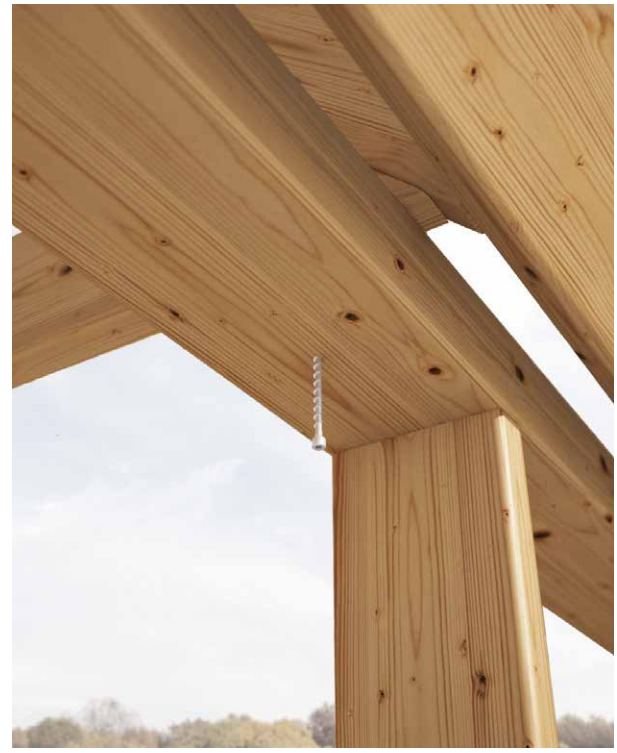
- The resistances and characteristic values were determined through testing in accordance with AS1649.2001 Timber – Methods of test for mechanical fasteners and connectors-Basic working loads and characteristic strengths, Standards Australia.
- For the joint group JD4, the density of the wood element was considered equal to ρ_m = 570 kg/m³ (SG10 Douglas Fir).
- For the joint group JD5, the density of the wood element was considered equal to ρ_m = 440 kg/m³ (SG8 Radiata Pine).
- Dimensioning and verification of the timber elements must be carried out separately.
- The resistance of the head penetration is considered when a deflection of 3,5 mm is reached.

C4 EVO COATING | INCLUDED | CE ETA 11/0030

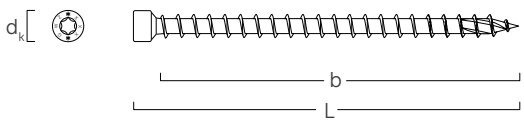
VGZ EVO-HT

FULL THREADED TRUSS SCREW

- Ideal for fastening elements with small cross-sections
- Approved for structural applications subject to stresses in any direction vs. the grain (α = 0° - 90°).
- Tested, certified and calculated for CLT and high-density woods such as LVL
- Tested C4-EVO coating for high corrosion resistance. Perfect for outdoor applications and treated timber.



CODES AND DIMENSIONS

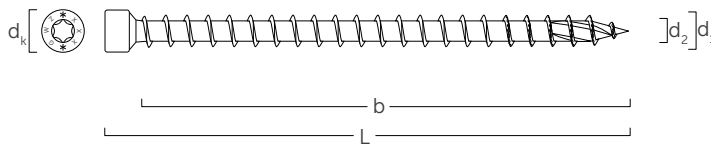


VGZ EVO H ANTI-RUST COATING CARBON STEEL

d_1 [mm]	*CODE*	L [mm]	b [mm]	
5,3 TX25	**VGZEVOH5120**	120	110	50
5,6 TX25	**VGZEVOH5140**	140	130	50
	VGZEVOH5160	160	150	50

VGZ EVO-HT | FULLY THREADED TRUSS SCREW

GEOMETRY AND MECHANICAL CHARACTERISTICS



nominal diameter	**d_1**	**[mm]**	**5,6**
head diameter	d_k	[mm]	11,00
tip diameter	d_2	[mm]	5,20
pre-drilling hole diameter(1)	d_v	[mm]	5,0
characteristic yield moment	$M_{y,k}$	[Nmm]	20000
characteristic withdrawal-resistance parameter (2)	$f_{ax,k}$	[N/mm²]	11,0
characteristic tensile strength	$f_{tens,k}$	[kN]	21
characteristic yield strength	$f_{y,k}$	[N/mm²]	1000

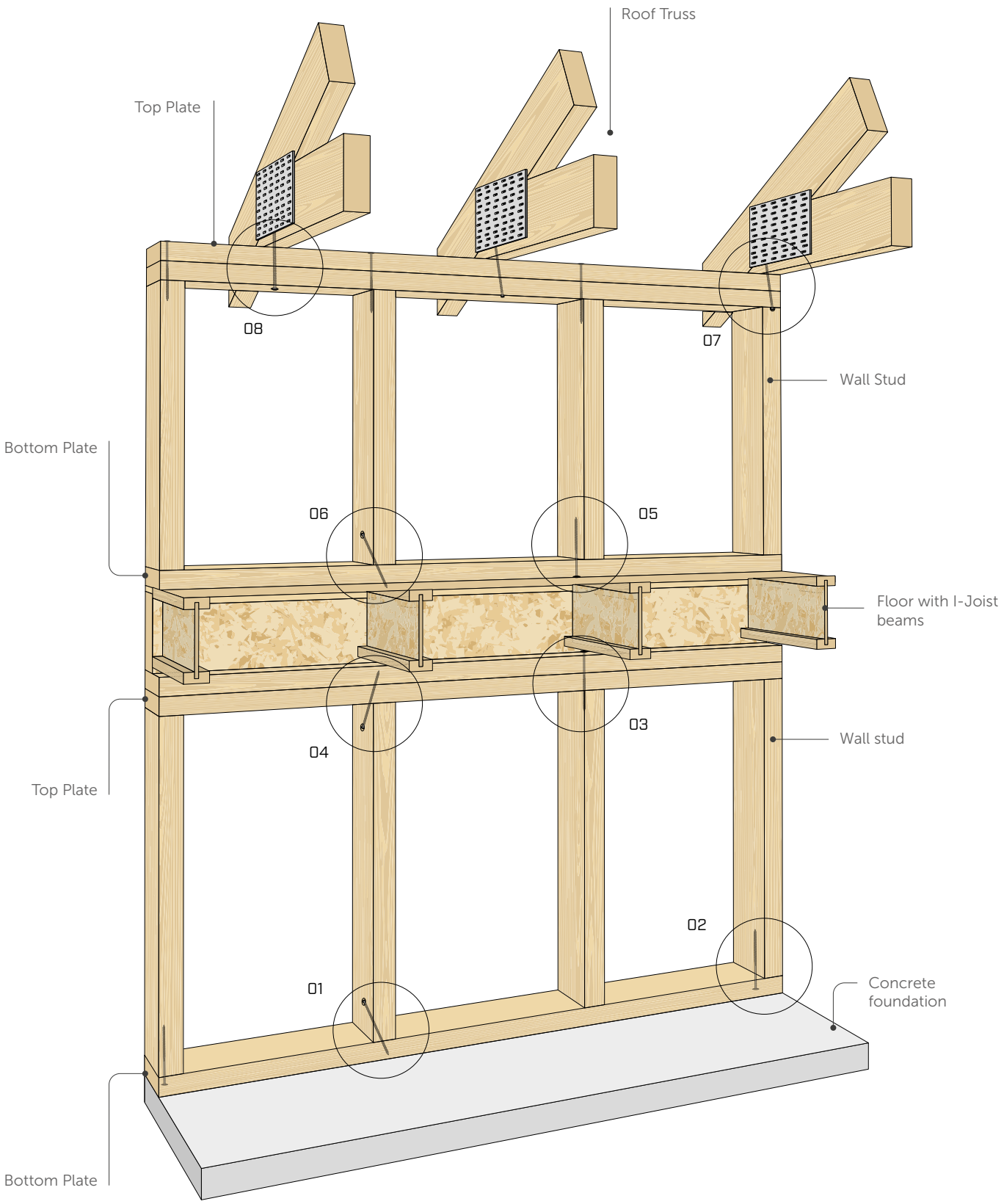
DESIGN CAPACITIES

Embedment [mm]	**Design Uplift Capacity N_{dj} [kN]**	
	JD4	**JD5**
35	4,0	2,9
45	5,2	3,7
70	8,1	5,7

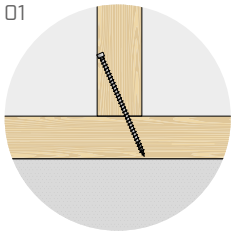
GENERAL PRINCIPLES

- The resistances and characteristic values were determined through testing in accordance with AS1649.2001 Timber – Methods of test for mechanical fasteners and connectors-Basic working loads and characteristic strengths, Standards Australia.
- For the joint group JD4, the density of the wood element was considered equal to ρ_m = 570 kg/m³ (SG10 Douglas Fir).
- For the joint group JD5, the density of the wood element was considered equal to ρ_m = 440 kg/m³ (SG8 Radiata Pine).
- Dimensioning and verification of the timber elements must be carried out separately.
- The resistance of the head penetration is considered when a deflection of 3,5 mm is reached.

EXAMPLE OF APPLICATION

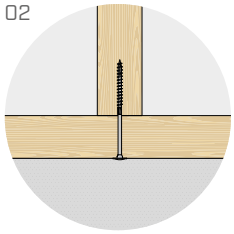


01



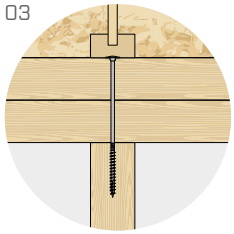
Joining of wall stud to bottom plate with single VGZ EVO H truss screw

02



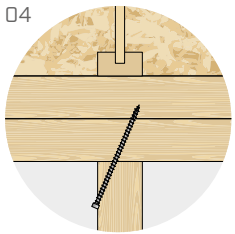
Joining of wall stud to bottom plate with single TLL EVO stud screw

03



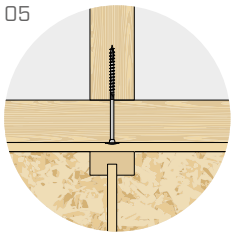
Joining of top plate(s) to wall studs with single TLL EVO stud screw

04



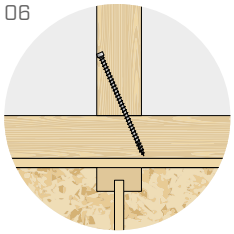
Joining of wall stud to top plates with single inclined VGZ EVO H truss screw

05



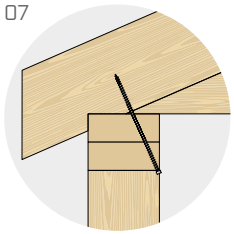
Joining of wall stud to bottom plate with single TLL EVO stud screw

06



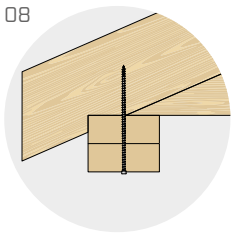
Joining of wall stud to bottom plate with single VGZ EVO H truss screw

07



Joining of roof truss to top plate with single inclined VGZ EVO H truss screw

08



Joining of roof truss to top plate with single VGZ EVO H truss screw

HOLZ TECHNIC

Make it easy.

info@holztechnic.com
www.holztechnic.com

10 YEARS ANNIVERSARY