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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

European Technical Assessment ETA-25/0616 of 2025/10/22

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S	
Trade name of the construction product:	DRILLNOX
Product family to which the above construction product belongs:	Bimetal stainless steel self-drilling screws
Manufacturer:	ETANCO Parc les érables – Bâtiment 1 66 Route de Sartrouville BP 49 FR-78231 le PECQ Cedex Telephone +33 1 34 80 52 00 Internet: www.etanco.fr
Manufacturing plant:	Manufacturing plant F27 Switzerland
This European Technical Assessment contains:	37 pages including 31 annexes which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	EAD 330046-01-0602, Fastening Screws for Metal Members and Sheeting
This version replaces:	-

II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product and intended use

The products are fastening screws (self-drilling screws) made of austenitic stainless steel. The fastening screws are normally completed with a metal washer with EPDM sealing.

Samples of fastenings screws are shown in Figure 1.

For details see Annex 4-31.

The fastening screws are made of austenitic stainless steel (A2, A4, A5 according to EN ISO 3506-1), more information in table 1.

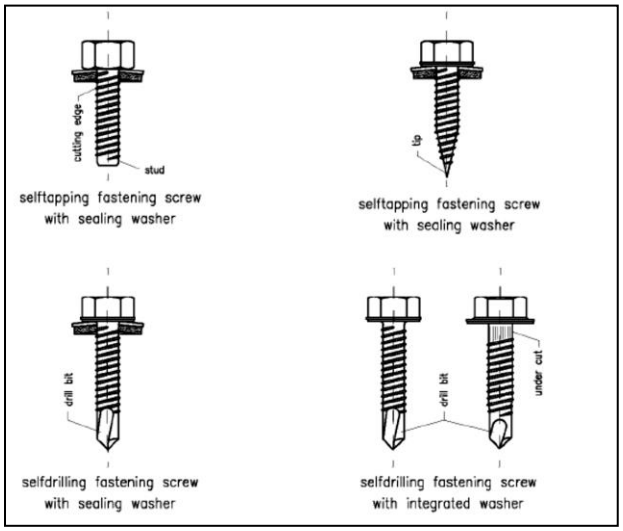


Figure 1: Fastening screws for metal members and sheeting

Screw	Washer [mm]	Material of components		Annex
		comp I	comp II	
DRILLNOX/N 3.5 TH8 Ø 5.5 x L	≥ 16,0	stainless steel		4
DRILLNOX/N 3.5 TH8 Ø 5.5 x L DRILLNOX/ N 3.5 PI TH8 Ø 5.5 x L	≥ 16,0	stainless steel		5
DRILLNOX/N 6 TH8 Ø 5.5 x L	≥ 16,0	stainless steel		6
DRILLNOX/N 12 TH8 Ø 5.5 x L	≥ 16,0	stainless steel		7
DRILLNOX 3T TH8 Ø 4.8 x L	≥ 14,0	stainless steel		8
DRILLNOX 3T TH8 Ø 4.8 x L	≥ 16,0	stainless steel		9
DRILLNOX 3T TH8 Ø 5.5 x L	≥ 14,0	stainless steel		10
DRILLNOX 3T TH8 Ø 5.5 x L	≥ 16,0	stainless steel		11
DRILLNOX 3T TH8 Ø 6.3 x L	≥ 14,0	stainless steel		12
DRILLNOX 3T TH8 Ø 6.3 x L	≥ 16,0	stainless steel		13
DRILLNOX BOIS TH8 Ø 6.5 x L	≥ 16,0	stainless steel		14
DRILLNOX STAR 3.5 PI TB 5.5xL	≥ 10,0	stainless steel		15
DRILLNOX STAR 3.5 PI TB 5.5xL	≥ 11,0	stainless steel		16
DRILLNOX STAR 3.5 PI TB 5.5xL	≥ 16,0	stainless steel		17
DRILLNOX STAR 6 TB 5.5xL	≥ 10,0	stainless steel		18
DRILLNOX STAR 6 TB 5.5xL	≥ 16,0	stainless steel		19
DRILLNOX STAR BOIS TB 4.9xL	≥ 10,0	stainless steel		20
DRILLNOX STAR BOIS TB 4.9xL	≥ 16,0	stainless steel		21
DRILLNOX/N 3.5PI TH8 5.5xL	-	stainless steel		22
DRILLNOX DBS2 5.5xL	≥ 16,0	stainless steel		23
DRILLNOX DBS3 6.0xL	≥ 16,0	stainless steel		24
DRILLNOX BOIS TH8 Ø 4.9 x L	≥ 14,0	stainless steel		25
DRILLNOX/N 3 TH8 Ø 6.3 x L	≥ 16,0	stainless steel		26
DRILLNOX STAR 12 TB 5.5xL	≥ 16,0	stainless steel		27
DRILLNOX STAR 3.5 PI 5.5xL	≥ 14,0	stainless steel		28
DRILLNOX STAR 6 TB 5.5xL	≥ 14,0	stainless steel		29
DRILLNOX STAR 12 TB 5.5xL	≥ 14,0	stainless steel		30
DRILLNOX STAR BOIS TB 4.9xL	≥ 12,0	stainless steel		31

Table 1 – Fastening screws and their field of application

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The fastening screws are intended to be used for fastening metal sheeting to metal or timber supporting substructures. The sheeting can either be used as wall or roof cladding or as load bearing wall and roof element. The fastening screws can also be used for the fastening of any other thin gauge metal members. The intended use comprises fastening screws and connections for indoor and outdoor applications.

Fastening screws which are intended to be used in external environments with ≥ C2 corrosion according to the standard EN ISO 12944-2 are made of stainless steel. Furthermore, the intended use comprises connections with predominantly static loads(e.g. wind loads, dead loads). The fastening screws for metal members and sheeting are not intended for re-use.

The field of application of the screws is shown in Table 1. The corresponding sheet thicknesses are shown in the annexes.

The performances given in Section 3 are only valid if the fastening screws are used in compliance with the specifications and conditions given in Annex 4-31.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the screws of 25 years.

The indications given on the intended working life cannot be interpreted as a guarantee given by the producer or the Technical Assessment Body, but are to be regarded only as a means for selecting the appropriate products in relation to the expected economically reasonable working life of the works.

The real working life might be, in normal use conditions, considerably longer without major degradation affecting the Basic requirements for construction works.

3 Performance of the product and references to the methods used for its assessment

Characteristic	Assessment of characteristic
3.1 Mechanical resistance and stability (BWR1)	
Shear resistance of the connection	**See Annex 4-31**
Tension resistance of the connection	**See Annex 4-31**
Design resistance in case of combined tension and shear forces	**See Annex 2**
Check of deformation capacity in case of constraining forces due to temperature	**No performance assessed**
Durability	**See Annexes 4 and 5**, material of the fasteners For the corrosion protection the rules given in EN 1993-1-3, EN 1993-1-4 and EN 1999-1-4 shall be taken into account. Fastening screws which are intended to be used in external environments with ≥ C2 corrosion according to the standard EN ISO 12944-2 are made of stainless steel.
3.2 Safety in case of fire (BWR2)	
Reaction to fire	The screws are considered to satisfy the requirements for performance **Class A1** in accordance with EN 13501-1 and Commission Delegated Regulation 2016/364, in accordance with EC Decision 96/603/EC,

*) See additional information in section 3.3-3.4

3.3 Methods of verification

The assessment of the performance of the fastening screws for metal members and sheeting in relation to the applicable BWR's has been made in accordance with the European Assessment Document (EAD) No. EAD 330046-01-0602, Fastening Screws for Metal Members and Sheeting.

3.4 General aspects related to the performance of the product

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide whether such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

4.1 AVCP system

According to the Decision 1998/214/EC of the European Commission 1, as amended by 2001/596/EC, the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is: **2+**

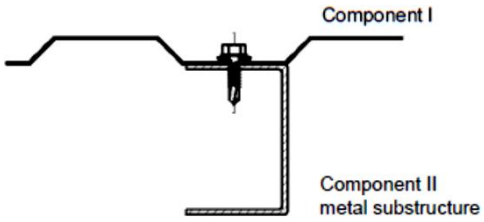
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

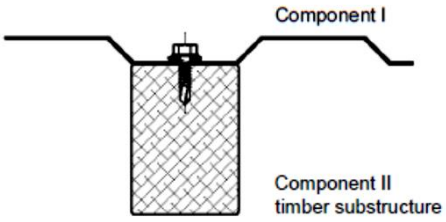
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2025-10-22 by

Thomas Bruun
Managing Director, ETA-Danmark

Examples of execution of a connection





Terms for materials

Fastener	Fastening screw
Washer	Sealing washer
Component I	Metal member or sheeting
Component II	Substructure

Terms for dimensions

t_I	Thickness of metal member or sheeting
t_{II}	Thickness of metal substructure
l_{ef}	Effective screw-in length in timber substructure (without drill point)
d_{dp}	Pre-drill diameter of metal member or sheeting and substructure
$d_{dp,I}$	Pre-drill diameter of metal member or sheeting

Terms for performances

$V_{R,k}$	Characteristic value of shear resistance of the connection
$N_{R,k}$	Characteristic value of tension resistance of the connection
$V_{R,I,k}$	Characteristic value of shear resistance of metal member or sheeting
$N_{R,I,k}$	Characteristic value of tension resistance (pull-through) of metal member or sheeting
$N_{R,II,k}$	Characteristic value of tension resistance (pull-out) of the substructure

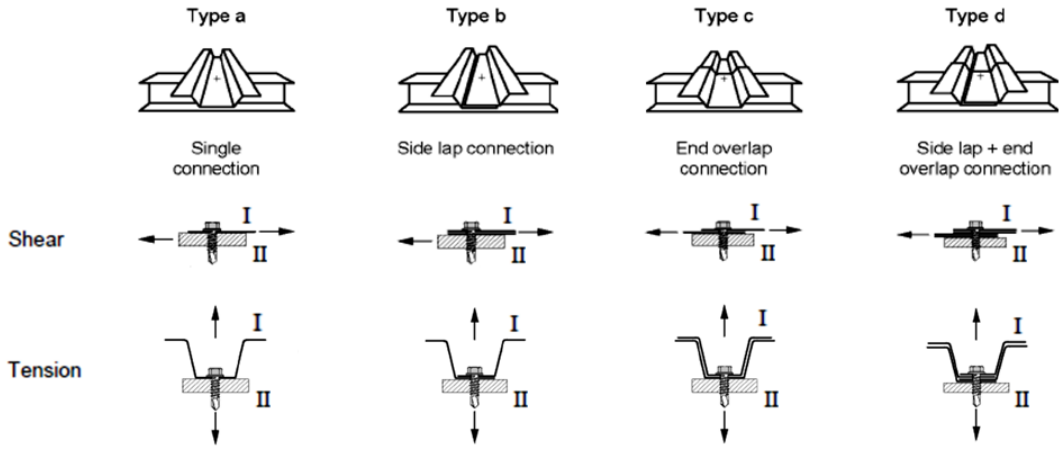
Additionally for timber substructure the following terms are used:

$M_{y,Rk}$	Characteristic value of yield moment
$f_{ax,k}$	Characteristic value of withdrawal strength
$f_{h,k}$	Characteristic value of embedding strength

The EPDM of the sealing washers has a nominal thickness of 3.0 mm in accordance with the appendices. Alternatively, 2.0 mm thick sealing washers can be used.

Used terms in the Annexes	**Annex 1**
Fastening screws for metal members and sheeting	

Types of connection and occurred loadings



Determination of Design Values

The design value of tension and shear resistance has to be determined as follows:

$$N_{R,d} = \frac{N_{R,k}}{\gamma_M} \qquad V_{R,d} = \frac{V_{R,k}}{\gamma_M}$$

The characteristic values $N_{R,k}$ and $V_{R,k}$ are given in the Annexes. For intermediate dimension of metal member or sheeting or substructure the characteristic value of the thinner dimension is used.

The recommended partial safety factor γ_M = 1,33 is used, provided no partial safety factor is given in national regulations or national Annexes to Eurocode 3.

For the types of connection (a, b, c, d) listed in the Annexes it is not necessary to take into account the effect of constrains due to temperature. Otherwise this has to be considered unless constrains due to temperature do not occur or are not significant (e.g. sufficient flexibility of the substructure).

For asymmetric metal substructures with thickness t_{II} < 5 mm (for instance Z- or C-shaped profiles), the characteristic value $N_{R,k}$ given in the Annexes has to be reduced to 70%.

In case of combined tension and shear forces the following interaction equation is taken into account:

$$\frac{N_{S,d}}{N_{R,d}} + \frac{V_{S,d}}{V_{R,d}} \leq 1{,}0$$

$N_{S,d}$ and $V_{S,d}$ indicates the design values of applied tension and shear forces.

Installation conditions

The installation is carried out according to the manufacturer's instructions.

The fastening screws are screwed-in with electric screw driver. The use of impact wrenches is not allowed.

The fastening screws are fixed rectangular to the surface of the metal member or sheeting.

The metal member or sheeting and substructure are in contact to each other. The use of compression resistant thermal insulation strips up to a thickness of 3 mm is allowed.

The thickness (or minimum thickness) of metal substructure needs to be covered by the clamping length of the fastening screw. Otherwise only the screwed-in clamping length of the fastening screw may be considered.

Basics for the design	**Annex 2**
Fastening screws for metal members and sheeting	

Timber substructures

Characteristic values of tension and shear resistance of the connection for other k_{mod} or ρ_k as indicated in the Annexes can be determined as follows:

$$N_{R,k} = \min \left\{ \begin{matrix} N_{R,I,k} \\ F_{ax,Rk} * k_{mod} \end{matrix} \right. \qquad V_{R,k} = \min \left\{ \begin{matrix} V_{R,I,k} \\ F_{v,Rk} * k_{mod} \end{matrix} \right.$$

The characteristic values $N_{R,I,k}$ and $V_{R,I,k}$ are given in the corresponding Annex of the fastening screw.

$F_{ax,Rk}$ indicates the characteristic value of tension resistance of timber substructure. The value has to be determined according to EN 1995-1-1:2004 + A1:2008, equation (8.40a) with $f_{ax,k}$ given in the corresponding Annex of the fastening screw.

$F_{v,Rk}$ indicates the characteristic shear resistance of timber substructure. The value has to be determined according to EN 1995-1-1:2004 + A1:2008, equation (8.9) with $M_{y,Rk}$ and $f_{h,k}$ given in the corresponding Annex of the fastening screw.

Aluminium members and sheeting

Characteristic values of tension resistance of the connection can be determined as follows:

$$N_{R,k} = \min \left\{ \begin{matrix} N_{R,I,k} \\ N_{R,II,k} \end{matrix} \right.$$

The characteristic value $N_{R,I,k}$ has to be determined according to EN 1999-1-4:2007 + AC:2009, equation (8.13).

The characteristic value $N_{R,II,k}$ is given in the corresponding Annex of the fastening screw.

Perforated steel members and sheeting

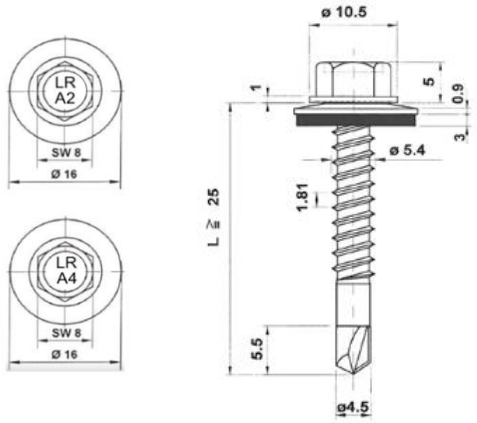
Characteristic values of tension and shear resistance of the connection can be determined as follows:

$$N_{R,k} = \min \left\{ \begin{matrix} N_{R,I,k} \\ N_{R,II,k} \end{matrix} \right. \qquad V_{R,k} = \min \left\{ \begin{matrix} V_{R,I,k} \\ V_{R,k} \end{matrix} \right.$$

The characteristic values $N_{R,I,k}$ and $V_{R,I,k}$ are given in Annex 4 and 5.

The characteristic values $N_{R,II,k}$ and $V_{R,k}$ are given in the corresponding Annex of the fastening screw.

Specific notes to the Annexes	Annex 3
Fastening screws for metal members and sheeting	



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

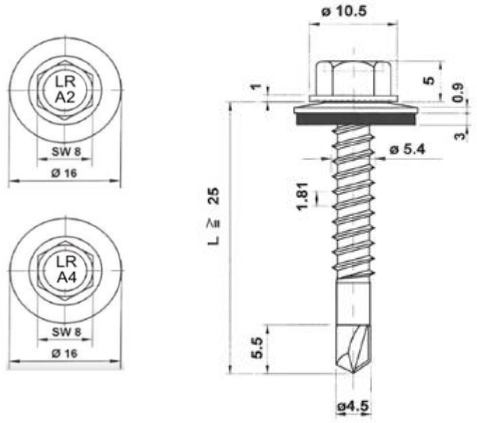
No performance assessed

			Component II t II [mm]					
			2 x 0.75		2 x 0.88		2 x 1.00	
		$M_{t.nom}$	5 Nm					
Component I	$V_{R.k}$ [kN]	0.63	2.30	-	2.40	ac	2.50	ac
		0.75	2.40	-	2.90	-	2.90	-
		0.88	2.40	-	2.90	-	2.90	-
		1.00	2.40	-	2.90	-	2.90	-
		1.13	2.40	-	2.90	-	2.90	-
		1.25	2.40	-	2.90	-	2.90	-
		1.50	2.40	-	2.90	-	2.90	-
		1.75	2.40	-	2.90	-	-	-
		2.00	2.40	-	-	-	-	-
	$N_{R.k}$ [kN]	0.50	0.92		1.03	ac	1.08	ac
		0.55	1.16		1.30	ac	1.36	ac
		0.63	1.70	-	1.90	ac	2.00	ac
		0.75	1.70	-	1.90	-	2.00	-
		0.88	1.70	-	1.90	-	2.00	-
		1.00	1.70	-	1.90	-	2.00	-
		1.13	1.70	-	1.90	-	2.00	-
		1.25	1.70	-	1.90	-	2.00	-
		1.50	1.70	-	1.90	-	2.00	-
		1.75	1.70	-	1.90	-	-	-
		2.00	1.70	-	-	-	-	-
		$N_{R.k.II}$	1.70	-	1.90	-	2.00	-

Self-drilling screw

DRILLNOX/N 3.5 TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 4



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

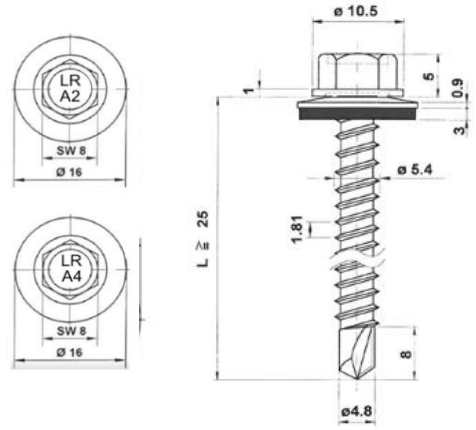
No performance assessed

		Component II t II [mm]				
		1.00	1.25	1.50	2.00	3.00
	$M_{t.nom}$	-				
Component I t I [mm] $V_{R.k}$ [kN]	0.63	1.90 ac	2.10 ac	2.40 ac	2.60 ac	2.60 ac
	0.75	2.10 -	2.40 ac	2.60 ac	3.00 ac	- -
	0.88	2.30 -	2.60	2.90 ac	3.40 ac	- -
	1.00	2.50 -	2.80	3.20 -	3.70 -	- -
	1.13	2.70 -	3.00	3.40 -	4.10 -	- -
	1.25	2.80 -	3.20	3.60 -	4.30 -	- -
Component I t I [mm] $N_{R.k}$ [kN]	0.50	0.49 -	0.70 ac	0.92 ac	1.35 ac	1.57 ac
	0.55	0.61 -	0.89 ac	1.16 ac	1.71 ac	1.98 ac
	0.63	0.90 -	1.30 ac	1.70 ac	2.50 ac	2.90 ac
	0.75	0.90 -	1.30 ac	1.70 ac	2.50 ac	- -
	0.88	0.90 -	1.30 -	1.70 ac	2.50 ac	- -
	1.00	0.90 -	1.30 -	1.70 -	2.50 -	- -
	1.13	0.90 -	1.30 -	1.70 -	2.50 -	- -
	1.25	0.90 -	1.30 -	1.70 -	2.50 -	- -
	$N_{R.k.II}$	0.90 -	1.30 -	1.70 -	2.50 -	- -

Self-drilling screw

DRILLNOX/N 3.5 TH8 Ø 5.5 x L DRILLNOX/ N 3.5 PI TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 5



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 6.00$ mm

Timber substructures

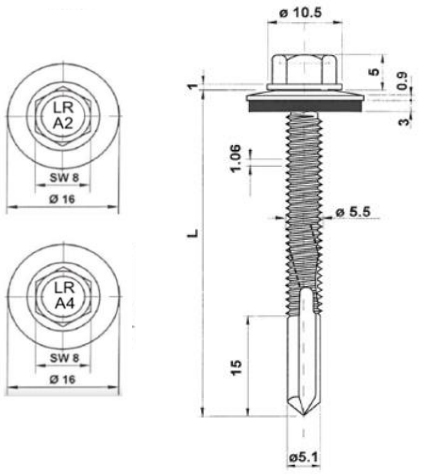
No performance assessed

		Component II t II [mm]					
		3.00		4.00		5.00	
	$M_{t.nom}$	7 Nm					
Component I t I [mm]	$V_{R.k}$ [kN]						
	0.63	2.60	abcd	3.00	abcd	3.00	abcd
	0.75	3.00	ac	3.40	ac	3.40	ac
	0.88	3.40	ac	3.80	ac	3.80	ac
	1.00	3.70	ac	4.30	ac	4.30	ac
	1.13	4.00	ac	4.70	ac	-	-
	1.25	4.40	a	5.10	a	-	-
	1.50	5.00	-	5.30	-	-	-
	1.75	5.00	-	5.30	-	-	-
	2.00	5.00	-	5.30	-	-	-
	$N_{R.k}$ [kN]						
	0.50	1.57	abcd	1.57	abcd	1.57	abcd
	0.55	1.98	abcd	1.98	abcd	1.98	abcd
	0.63	2.90	abcd	2.90	abcd	2.90	abcd
	0.75	3.40	ac	3.40	ac	3.40	ac
	0.88	4.00	ac	4.00	ac	4.00	ac
	1.00	4.30	ac	4.50	ac	4.50	ac
	1.13	4.30	ac	5.00	ac	-	-
	1.25	4.30	a	5.10	a	-	-
	1.50	4.30	-	5.10	-	-	-
	1.75	4.30	-	5.10	-	-	-
	2.00	4.30	-	5.10	-	-	-
	$N_{R.k.II}$	4.30	-	5.10	-	5.10	-

Self-drilling screw

DRILLNOX/N 6 TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 6



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 12.50$ mm

Timber substructures

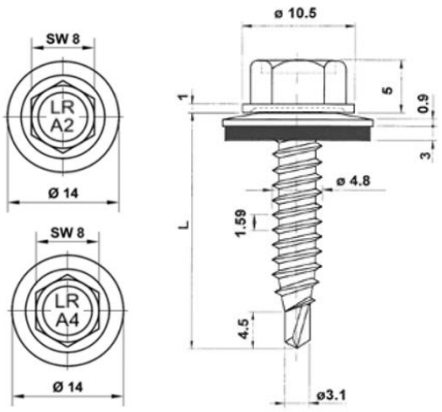
No performance assessed

			Component II t II [mm]					
			6.00		8.00		10.0	
		$M_{t.nom}$	5 Nm					
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	2.60	abcd	2.60	abcd	2.60	abcd
		0.75	3.10	abcd	3.10	abcd	3.10	abcd
		0.88	3.60	ac	3.60	ac	3.60	ac
		1.00	4.10	ac	4.10	ac	4.10	ac
		1.13	4.60	ac	4.60	ac	4.60	ac
		1.25	5.10	ac	5.10	ac	5.10	ac
		1.50	6.00	-	6.00	-	6.00	-
		1.75	6.00	-	6.00	-	6.00	-
		2.00	6.00	-	6.00	-	6.00	-
	$N_{R.k}$ [kN]	0.50	1.35	abcd	1.35	abcd	1.35	abcd
		0.55	1.71	abcd	1.71	abcd	1.71	abcd
		0.63	2.50	abcd	2.50	abcd	2.50	abcd
		0.75	2.90	abcd	2.90	abcd	2.90	abcd
		0.88	3.70	ac	3.70	ac	3.70	ac
		1.00	4.50	ac	4.50	ac	4.50	ac
		1.13	5.00	ac	5.00	ac	5.00	ac
		1.25	5.50	ac	5.50	ac	5.50	ac
		1.50	5.70	-	5.70	-	5.70	-
		1.75	5.70	-	5.70	-	5.70	-
		2.00	5.70	-	5.70	-	5.70	-
		$N_{R.k.II}$	5.70	-	5.70	-	5.70	-

Self-drilling screw

DRILLNOX/N 12 TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 7



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506 organic coated
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

No performance assessed

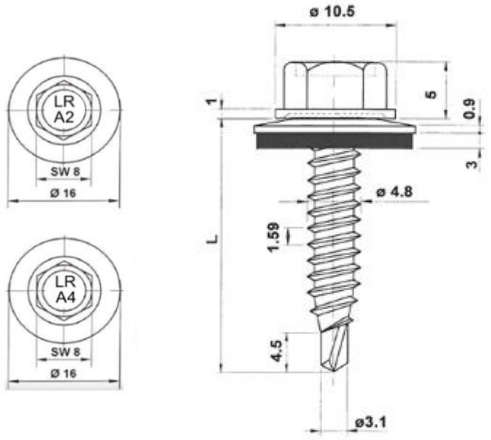
		Component II								
		t II [mm]								
		0.40	0.50	0.55	0.63	0.75	0.88	1.00	1.13	1.25
	$M_{t,nom}$	-								
Component I t I [mm] — $V_{R,k}$ [kN]	0.40	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -
	0.50	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -	0.59 -
	0.55	0.59 -	0.59 -	0.71 -	0.71 -	0.71 -	0.71 -	0.71 -	0.71 -	0.71 -
	0.63	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.50 -	2.10 ac	2.10 ac	2.10 ac
	0.75	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.50 -	2.10 ac	2.10 a	2.10 a
	0.88	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.70 -	2.40 -	2.40 -	2.40 -
	1.00	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
	1.13	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
	1.25	0.59 -	0.59 -	0.71 -	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
Component I t I [mm] — $N_{R,k}$ [kN]	0.40	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.46 -	1.46
	0.50	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 ac	1.52 ac	1.65 ac
	0.55	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 ac	1.55 ac	1.75 ac
	0.63	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 ac	1.60 ac	1.90 ac
	0.75	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 ac	1.60 a	1.90 a
	0.88	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -
	1.00	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -
	1.13	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -
	1.25	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -
	$N_{R,k,II}$	0.41 -	0.53 -	0.60 -	0.70 -	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -

Index a: If component I is made of S320GD or S350GD the values may be increased by 8.0%.

Self-drilling screw

DRILLNOX 3T TH8 Ø 4.8 x L
bimetal with hexagon head and sealing washer ≥ Ø14.0 mm

Annex 8



Materials

Fastener: Stainless steel A2, A4, A5 – EN ISO 3506

Washer: Stainless steel A2, A4, A5 – EN ISO 3506

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

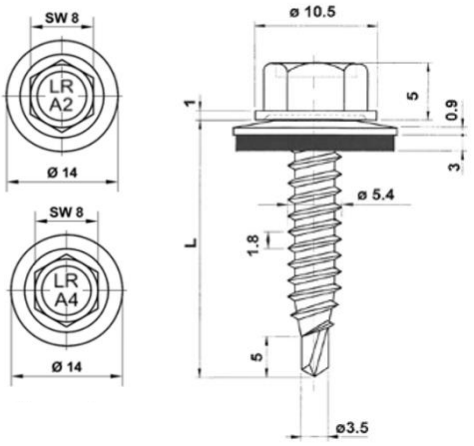
No performance assessed

			Component II t II [mm]					
			0.63	0.75	0.88	1.00	1.13	1.25
		$M_{t.nom}$	5 Nm					
Component I	$V_{R.k}$ [kN]	0.63	0.90 -	0.90 -	1.50 -	2.10 ac	2.10 ac	2.10 ac
		0.75	0.90 -	0.90 -	1.50 -	2.10 ac	2.10 ac	2.10 ac
		0.88	0.90 -	0.90 -	1.70 -	2.40 -	2.40 -	2.40 -
		1.00	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
		1.13	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
		1.25	0.90 -	0.90 -	1.90 -	2.80 -	2.80 -	2.80 -
	$N_{R.k}$ [kN]	0.50	0.38 -	0.38 -	0.54	0.70 ac	0.86 ac	1.03 ac
		0.55	0.48 -	0.48 -	0.68	0.89 ac	1.09 ac	1.30 ac
		0.63	0.70 -	0.70 -	1.00	1.30 ac	1.60 ac	1.90 ac
		0.75	0.70 -	0.70 -	1.00	1.30 ac	1.60 a	1.90 a
		0.88	0.70 -	0.70 -	1.00	1.30	1.60 -	1.90 -
		1.00	0.70 -	0.70 -	1.00	1.30	1.60 -	1.90 -
		1.13	0.70 -	0.70 -	1.00	1.30	1.60 -	1.90 -
		1.25	0.70 -	0.70 -	1.00	1.30	1.60 -	1.90 -
		$N_{R.k.II}$	0.70 -	0.70 -	1.00	1.30	1.60 -	1.90 -

Self-drilling screw

DRILLNOX 3T TH8 Ø 4.8 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 9



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506 organic coated
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

No performance assessed

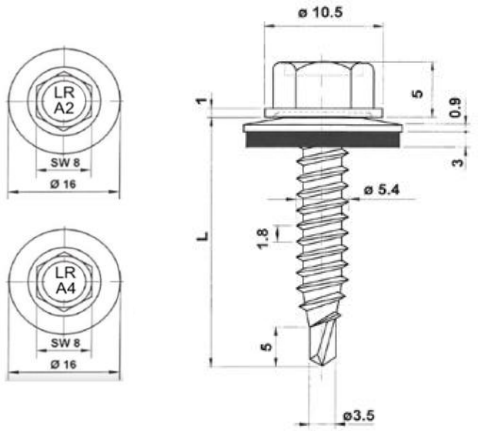
			Component II								
			t II [mm]								
			0,50	0,55	0,63	0,75	0,88	1,00	1,13	1,25	2 x 0,75
		$M_{t,nom}$	-								
Component I t I [mm]	$V_{R,k}$ [kN]	0,50	0,96[a] -	0,96[a] -	0,96[a] -	0,96[a] -	0,96[a] -	0,96[a] ac	0,96[a] ac	0,96[a] ac	0,96[a] a
		0,55	0,96[a] -	1,09 -	1,09 -	1,09 -	1,09 -	1,09 ac	1,09 ac	1,09 ac	1,09 a
		0,63	0,96[a] -	1,09 -	1,30 -	1,50 -	1,50 -	1,50 ac	1,50 ac	1,50 ac	1,80 a
		0,75	0,96[a] -	1,09 -	1,30 -	1,50 -	1,50 -	1,50 -	1,50 -	1,50 -	1,80 -
		0,88	0,96[a] -	1,09 -	1,30 -	1,50 -	1,90 -	2,30 -	2,30 -	2,40 -	2,40 -
		1,00	0,96[a] -	1,09 -	1,30 -	1,50 -	2,30 -	3,00 -	3,10 -	3,20 -	3,00 -
		1,13	0,96 -	1,09 -	1,30 -	1,50 -	2,30 -	3,00 -	3,10 -	3,20 -	- -
		1,25	0,96 -	1,09 -	1,30 -	1,50 -	2,30 -	3,00 -	3,10 -	3,20 -	- -
	$N_{R,k}$ [kN]	0,50	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,46 ac	1,46 ac	1,46 ac	1,46[a] a
		0,55	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 ac	1,71 ac	1,71 ac	1,71 a
		0,63	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 ac	1,90 ac	2,10 ac	2,10 a
		0,75	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
		0,88	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
		1,00	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
		1,13	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	- -
		1,25	0,54[a] -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	- -
		$N_{R,k,II}$	0,54 -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -

Index a: If component I is made of S320GD or S350GD the values may be increased by 8.0%.

Self-drilling screw

DRILLNOX 3T TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø14.0 mm

Annex 10



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

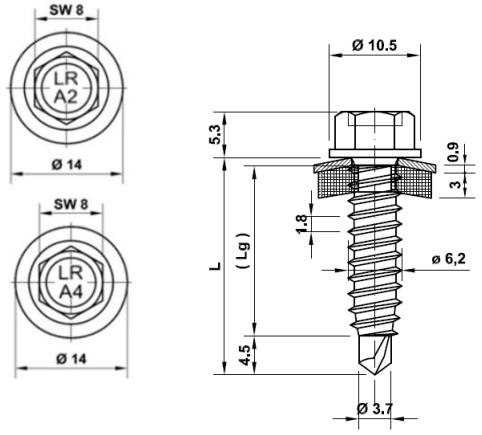
No performance assessed

			Component II t II [mm]						
			0.63	0.75	0.88	1.00	1.13	1.25	2x0.75
		$M_{t.nom}$	4 Nm			5 Nm			5 Nm
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	1.30 -	1.50 -	1.50 -	1.50 ac	1.50 ac	1.50 ac	1.80 ac
		0.75	1.30 -	1.50 -	1.50 -	1.50 -	1.50 -	1.50 -	1.80 -
		0.88	1.30 -	1.50 -	1.90 -	2.30 -	2.30 -	2.40 -	2.40 -
		1.00	1.30 -	1.50 -	2.30 -	3.00 -	3.10 -	3.20 -	3.00 -
	$N_{R.k}$ [kN]	0.50	0.38 -	0.54 -	0.70 -	0.86 ac	1.03 ac	1.13 ac	1.13 ac
		0.55	0.48 -	0.68 -	0.89 -	1.09 ac	1.30 ac	1.43 ac	1.43 ac
		0.63	0.70 -	1.00 -	1.30 -	1.60 ac	1.90 ac	2.10 ac	2.10 ac
		0.75	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.30 -
		0.88	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.30 -
		1.00	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.30 -
		$N_{R.k.II}$	0.70 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.30 -

Self-drilling screw

DRILLNOX 3T TH8 Ø 5.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 11



Materials

Fastener: Stainless steel A2, A4, A5 – EN ISO 3506
organic coated

Washer: Stainless steel A2, A4, A5 – EN ISO 3506

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

No performance assessed

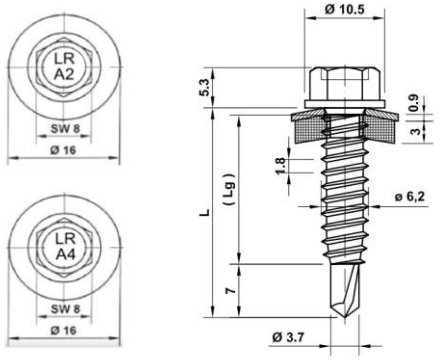
			Component II								
			t II [mm]								
			0.50	0.55	0.63	0.75	0.88	1.00	1.13	1.25	2 x 0.75
		$M_{t.nom}$	-								
Component I t I [mm]	$V_{R.k}$ [kN]	0.50	1.13[a] -	1.13[a] -	1.13[a] -	1.13[a] -	1.13[a] -	1.13[a] ac	1.13[a] ac	1.13[a] ac	1.13[a] a
		0.55	1.13[a] -	1.31 -	1.31 -	1.31 -	1.31 -	1.31 ac	1.31 ac	1.31 ac	1.31 a
		0.63	0.96[a] -	1.60 -	1.60 -	1.60 -	1.60 -	1.60 ac	1.60 ac	1.60 ac	1.80 a
		0.75	0.96[a] -	1.60 -	1.60 -	1.60 -	1.60 -	1.60 -	1.60 -	1.60 -	1.80 -
		0.88	0.96[a] -	1.60 -	1.60 -	1.60 -	1.90 -	2.30 -	2.30 -	2.40 -	2.40 -
		1.00	0.96[a] -	1.60 -	1.60 -	1.60 -	2.30 -	3.00 -	3.10 -	3.20 -	3.00 -
		1.13	0.96 -	1.60 -	1.60 -	1.60 -	2.30 -	3.00 -	3.10 -	3.20 -	- -
		1.25	0.96 -	1.60 -	1.60 -	1.60 -	2.30 -	3.00 -	3.10 -	3.20 -	- -
	$N_{R.k}$ [kN]	0.50	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.46 ac	1.46 ac	1.46 ac	1.46[a] a
		0.55	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60 ac	1.71 ac	1.71 ac	1.71 a
		0.63	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60 ac	1.90 ac	2.10 ac	2.10 a
		0.75	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	2.60 -
		0.88	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	2.60 -
		1.00	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	2.60 -
		1.13	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	- -
		1.25	0.70[a] -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	- -
		$N_{R.k.II}$	0.70 -	0.74 -	0.88 -	1.00 -	1.30 -	1.60	1.90 -	2.20 -	- -

Index a: If component I is made of S320GD or S350GD the values may be increased by 8.0%.

Self-drilling screw

DRILLNOX 3T TH8 Ø 6.3 x L
bimetal with hexagon head and sealing washer ≥ Ø14.0 mm

Annex 12



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

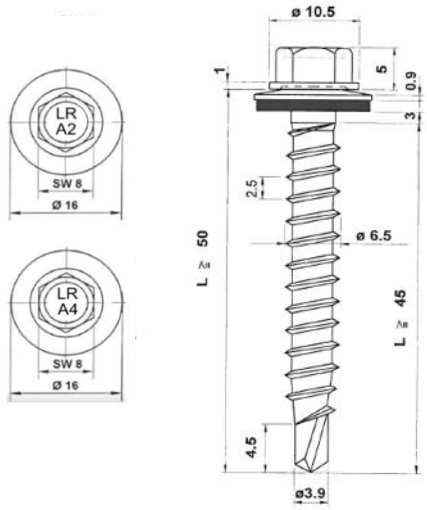
No performance assessed

		Component II t II [mm]						
		0.63	0.75	0.88	1.00	1.13	1.25	2x0.75
	$M_{t.nom}$	4 Nm			5 Nm			5 Nm
Component I t I [mm] $V_{R.k}$ [kN]	0.63	1.60 -	1.60 -	1.60 -	1.60 ac	1.60 ac	1.60 ac	1.80 ac
	0.75	1.60 -	1.60 -	1.60 -	1.60 -	1.60 -	1.60 -	1.80 -
	0.88	1.60 -	1.60 -	1.90	2.30 -	2.30 -	2.40 -	2.40 -
	1.00	1.60 -	1.60 -	2.30	3.00 -	3.10 -	3.20 -	3.00 -
Component I t I [mm] $N_{R.k}$ [kN]	0.50	0.43 -	0.54 -	0.70 -	0.86 -	1.03 ac	1.19 ac	1.30 ac
	0.55	0.55 -	0.68 -	0.89 -	1.09 -	1.30 ac	1.50 ac	1.64 ac
	0.63	0.80 -	1.00 -	1.30 -	1.60 -	1.90 ac	2.20 ac	2.40 ac
	0.75	0.80 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.60 -
	0.88	0.80 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.60 -
	1.00	0.80 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.60 -
	$N_{R.k.II}$	0.80 -	1.00 -	1.30 -	1.60 -	1.90 -	2.20 -	2.60 -

Self-drilling screw

DRILLNOX 3T TH8 Ø 6.3 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 13



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.50$ mm

Timber substructures

$M_{y,Rk}$ = 9.742 Nm
$f_{ax,k}$ = 8.575 N/mm² for $l_{ef} \geq 45.0$ mm

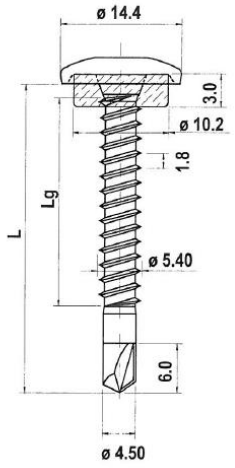
			Component II				
			steel t II [mm]			Timber ≥ C24 $L_g \geq 29$ mm	
			1.50		-		
		$M_{t.nom}$	5 Nm			-	
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	1.40	ac	- -	1.40	Failure of component I
		0.75	1.60	ac	- -	1.60	
		0.88	2.00	ac	- -	2.00	
		1.00	2.50	ac	- -	2.50	
	$N_{R.k}$ [kN]	0.50	1.24	ac	- -	1.24	Failure of component I
		0.55	1.57	ac	- -	1.57	
		0.63	2.30	ac	- -	2.30	
		0.75	2.80	ac	- -	2.80	
		0.88	3.20	ac	- -	3.20	
		1.00	3.20	ac	- -	3.20	
		$N_{R.k.II}$	3.20	ac	- -	-	-

The values listed above in dependence on the screw in length l_{ef} are valid for k_{mod} = 0.90 and ρ_k = 350 kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

DRILLNOX BOIS TH8 Ø 6.5 x L
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 14



Materials

Fastener:	stainless steel (1.4301) – EN 10088
Washer:	EPDM sealing
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

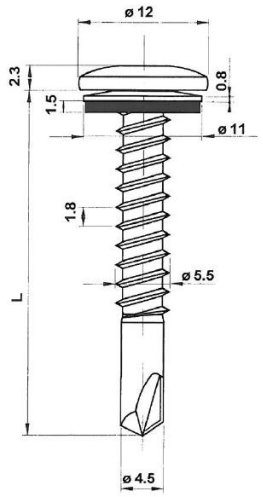
No performance assessed

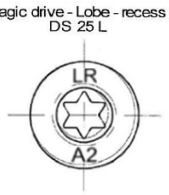
			Component II t II [mm]				
			1.00	1.13	1.25	1.50	2.00
		$M_{t.nom}$	5 Nm				
Component I t I [mm]	$V_{R.k}$ [kN]	0.50	1.00 ac	1.10 ac	1.20 ac	1.40 ac	1.70 ac
		0.55	1.10 ac	1.30 ac	1.40 ac	1.70 ac	2.10 ac
		0.63	1.30 -	1.40 -	1.60 ac	1.90 ac	2.40 ac
		0.75	1.50 -	1.70 -	2.00 -	2.40 -	3.10 ac
	$N_{R.k}$ [kN]	0.50	0.90 ac	1.10 ac	1.30 ac	1.70 ac	1.90 ac
		0.55	0.90 ac	1.10 ac	1.30 ac	1.70 ac	2.30 ac
		0.63	0.90 -	1.10 -	1.30 ac	1.70 ac	2.50 ac
		0.75	0.90 -	1.10 -	1.30 -	1.70 -	2.50 ac

Self-drilling screw

DRILLNOX STAR 3.5 PI TB 5.5xL
bimetal with rounded undercut head and sealing ring ≥ Ø10 mm

Annex 15





Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

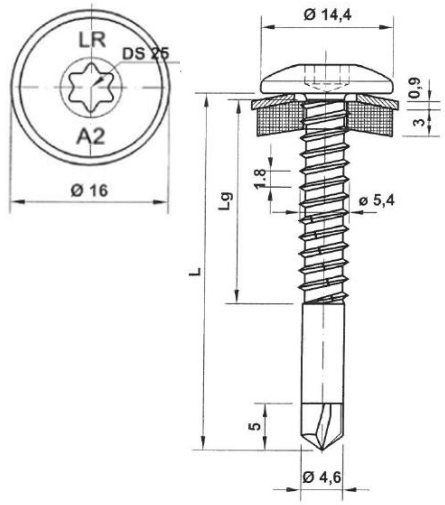
No performance assessed

		Component II t II [mm]						
		1.00	1.13	1.25	1.50	2.00	2.50	3.00
	$M_{t.nom}$	5 Nm						
Component I t I [mm] $V_{R.k}$ [kN]	0.50	0.90 ac	1.10 ac	1.30 ac	1.70 ac	1.90 ac	1.90 ac	1.90 ac
	0.55	0.90 ac	1.10 ac	1.30 ac	1.70 ac	2.30 ac	2.30 ac	- -
	0.63	0.90 -	1.10 ac	1.30 ac	1.70 ac	2.50 ac	2.50 ac	- -
	0.75	0.90 -	1.10 -	1.30 -	1.70 -	2.50 ac	2.50 ac	- -
	0.88	0.90 -	1.10 -	1.30 -	1.70 -	2.50 -	2.50 -	- -
	1.00	0.90 -	1.10 -	1.30 -	1.70 -	2.50 -	2.50 -	- -
	1.13	0.90 -	1.10 -	1.30 -	1.70 -	2.50 -	- -	- -
	1.25	0.90 -	1.10 -	1.30 -	1.70 -	2.50 -	- -	- -
	1.50	0.90 -	1.10 -	1.30 -	1.70 -	2.50 -	- -	- -
	1.75	0.90 -	1.10 -	1.30 -	1.70 -	- -	- -	- -
	2.00	0.90 -	1.10 -	1.30 -	1.70 -	- -	- -	- -
Component I t I [mm] $N_{R.k}$ [kN]	0.50	1.04 ac	1.13 ac	1.22 ac	1.40 ac	1.75 ac	1.75 ac	1.75 ac
	0.55	1.15 ac	1.27 ac	1.39 ac	1.70 ac	2.05 ac	2.05 ac	- -
	0.63	1.46 -	1.41 ac	1.56 ac	1.99 ac	2.34 ac	2.34 ac	- -
	0.75	1.46 -	1.68 -	1.90 -	2.57 -	2.93 ac	2.93 ac	- -
	0.88	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	2.93 -	- -
	1.00	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	2.93 -	- -
	1.13	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	- -	- -
	1.25	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	- -	- -
	1.50	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	- -	- -
	1.75	1.46 -	1.68 -	1.90 -	2.57 -	- -	- -	- -
	2.00	1.46 -	1.68 -	1.90 -	2.57 -	- -	- -	- -
	$N_{R.k.II}$	1.46 -	1.68 -	1.90 -	2.57 -	2.93 -	2.93 -	2.93 -

Self-drilling screw

DRILLNOX STAR 3.5 PI TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø11 mm

Annex 16



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

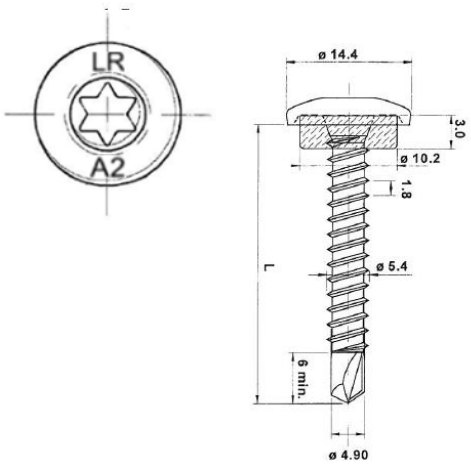
No performance assessed

			Component II t II [mm]				
			1.00	1.25	1.50	2.00	3.00
		$M_{t.nom}$	-				
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	1.90 ac	2.10 ac	2.40 ac	2.60 ac	2.60 ac
		0.75	2.10 -	2.40 ac	2.60 ac	3.00 ac	- -
		0.88	2.30 -	2.60	2.90 ac	3.40 ac	- -
		1.00	2.50 -	2.80	3.20 -	3.70 -	- -
		1.13	2.70 -	3.00	3.40 -	4.10 -	- -
		1.25	2.80 -	3.20	3.60 -	4.30 -	- -
	$N_{R.k}$ [kN]	0.50	0.49 -	0.70 ac	0.92 ac	1.35 ac	1.57 ac
		0.55	0.61 -	0.89 ac	1.16 ac	1.71 ac	1.98 ac
		0.63	0.90 -	1.30 ac	1.70 ac	2.50 ac	2.90 ac
		0.75	0.90 -	1.30 ac	1.70 ac	2.50 ac	- -
		0.88	0.90 -	1.30 -	1.70 ac	2.50 ac	- -
		1.00	0.90 -	1.30 -	1.70 -	2.50 -	- -
		1.13	0.90 -	1.30 -	1.70 -	2.50 -	- -
		1.25	0.90 -	1.30 -	1.70 -	2.50 -	- -
		$N_{R.k.II}$	0.90 -	1.30 -	1.70 -	2.50 -	- -

Self-drilling screw

DRILLNOX STAR 3.5 PI TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø16 mm

Annex 17



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: EPDM sealing

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 6.00$ mm

Timber substructures

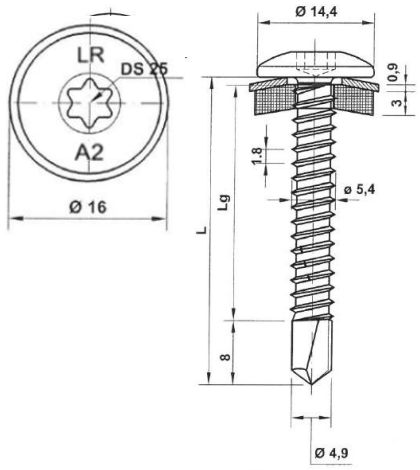
No performance assessed

			Component II t II [mm]			
			2.50	3.00	4.00	5.00
		$M_{t,nom}$	5 Nm			
Component I t I [mm]	$V_{R,k}$ [kN]	0.50	1.40 ac	1.80 ac	1.80 ac	1.80 ac
		0.55	1.80 ac	2.10 ac	2.10 ac	2.10 ac
		0.63	2.20 -	2.40 ac	2.40 ac	2.40 ac
		0.75	2.90 -	2.90 -	2.90 ac	2.90 ac
	$N_{R,k}$ [kN]	0.50	1.90 ac	1.90 ac	1.90 ac	1.90 ac
		0.55	2.30 ac	2.30 ac	2.30 ac	2.30 ac
		0.63	2.80 -	2.80 ac	2.80 ac	2.80 ac
		0.75	3.00 -	3.80 -	3.80 ac	3.80 ac
		$N_{R,k,II}$	3.00 -	3.80 -	3.80 -	3.80 -

Self-drilling screw

DRILLNOX STAR 6 TB 5.5xL
bimetal with rounded undercut head and sealing ring ≥ Ø10 mm

Annex 18



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 6.00$ mm

Timber substructures

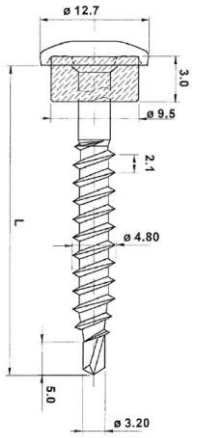
No performance assessed

			Component II t II [mm]				
			2.50	3.00	4.00	5.00	6.00
		$M_{t.nom}$	5 Nm				
Component I t I [mm]	$V_{R.k}$ [kN]	0.50	1.40 ac	1.80 ac	1.80 ac	1.80 ac	1.80 a
		0.55	1.80 ac	2.10 ac	2.10 ac	2.10 ac	2.10 a
		0.63	2.20 -	2.40 ac	2.40 ac	2.40 ac	2.40 a
		0.75	2.90 -	2.90 -	2.90 ac	2.90 ac	2.90 a
	$N_{R.k}$ [kN]	0.50	1.90 ac	1.90 ac	1.90 ac	1.90 ac	1.90 a
		0.55	2.30 ac	2.30 ac	2.30 ac	2.30 ac	2.30 a
		0.63	2.80 -	2.80 ac	2.80 ac	2.80 ac	2.80 a
		0.75	3.00 -	3.80 -	3.80 ac	3.80 ac	3.80 a
		$N_{R.k.II}$	3.00 -	3.80 -	3.80 -	3.80 -	3.80 -

Self-drilling screw

DRILLNOX STAR 6 TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø16 mm

Annex 19



Materials

Fastener:	stainless steel (1.4301) – EN 10088
Washer:	EPDM sealing
Component I:	S280GD to S320GD - EN 10346
Component II:	structural timber – EN 14081

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

$M_{y,Rk}$ = 4.429 Nm
$f_{ax,k}$ = 8.575 N/mm² for $l_{ef} \geq 30.0$ mm

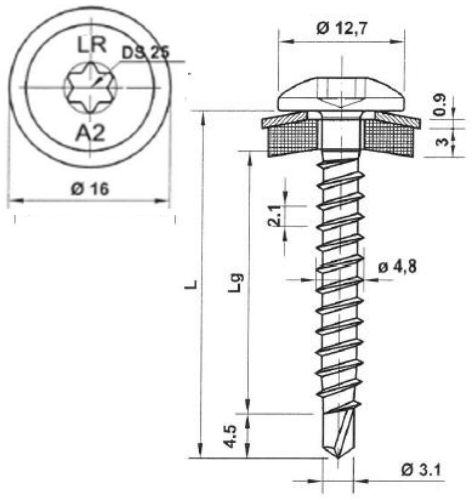
			Component II t II [mm]	
			-	
		$M_{t.nom}$	5 Nm	
Component I t I [mm]	$V_{R.I.k}$ [kN]	0.50	1.10	ac
		0.55	1.30	ac
		0.63	1.60	ac
		0.75	2.00	ac
	$N_{R.I.k}$ [kN]	0.50	1.80	ac
		0.55	2.10	ac
		0.63	2.50	ac
		0.75	3.20	ac

The values listed above in dependence on the screw in length l_{ef} are valid for k_{mod} = 0.90 and ρ_k = 350 kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

DRILLNOX STAR BOIS TB 4.9xL
bimetal with rounded undercut head and sealing ring ≥ Ø10 mm

Annex 20



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: structural timber – EN 14081

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

$M_{y,Rk}$ = 4.429 Nm

$f_{ax,k}$ = 8.575 N/mm² for $l_{ef} \geq 30.0$ mm

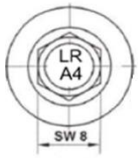
			Component II t II [mm]	
			-	
		$M_{t.nom}$	5 Nm	
Component I t I [mm]	$V_{R.I.k}$ [kN]	0.50	1.10	ac
		0.55	1.30	ac
		0.63	1.60	ac
		0.75	2.00	ac
	$N_{R.I.k}$ [kN]	0.50	1.80	ac
		0.55	2.10	ac
		0.63	2.50	ac
		0.75	3.20	ac

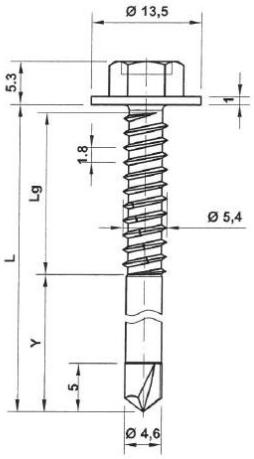
The values listed above in dependence on the screw in length l_{ef} are valid for k_{mod} = 0.90 and ρ_k = 350 kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

DRILLNOX STAR BOIS TB 4.9xL
bimetal with rounded flat head and sealing washer ≥ Ø16 mm

Annex 21





Materials

Fastener: Stainless steel A2, A4, A5 – EN ISO 3506

Washer: none

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

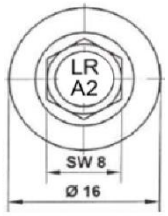
No performance assessed

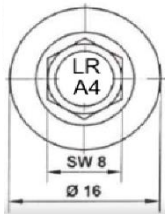
			Component II								
			t II [mm]								
			1.00	1.25	1.50	2.00	3.00	2 x 0.75	2 x 0.88	2 x 1.00	
		$M_{t.nom}$									
Component I t I [mm]	$V_{R.k}$ [kN]	0.50	1.20 -	1.20 -	1.20 -	1.20 -	1.20 -	- -	- -	- -	
		0.55	1.32 -	1.32 -	1.32 -	1.32 -	- -	- -	- -	- -	
		0.63	1.51 -	1.51 -	1.51 -	1.51 -	- -	2.27 -	2.27 -	2.27 -	
		0.75	1.80 -	1.80 -	1.80 -	1.80 -	- -	2.46 -	2.86 -	3.23 -	
		0.88	2.13 -	2.13 -	2.13 -	2.13 -	- -	2.46 -	2.86 -	3.23 -	
		1.00	2.43 -	2.43 -	2.43 -	2.43 -	- -	2.46 -	2.86 -	3.23 -	
		1.13	2.43 -	2.97 -	2.97 -	3.75 -	- -	2.46 -	2.86 -	3.23 -	
		1.25	2.43 -	3.47 -	3.47 -	4.96 -	- -	2.46 -	2.86 -	3.23 -	
		1.50	- -	- -	- -	- -	- -	2.46 -	2.86 -	3.23 -	
		1.75	- -	- -	- -	- -	- -	2.46 -	2.86 -	3.23 -	
		2.00	- -	- -	- -	- -	- -	2.46 -	- -	- -	
	$N_{R.k}$ [kN]	0.50	0.90 -	1.16 -	1.16 -	1.16 -	1.16 -	1.16 -	1.16 -	1.16 -	
		0.55	0.90 -	1.30 -	1.35 -	1.35 -	- -	1.35 -	1.35 -	1.35 -	
		0.63	0.90 -	1.30 -	1.65 -	1.65 -	- -	1.65 -	1.65 -	1.65 -	
		0.75	0.90 -	1.30 -	1.70 -	2.50 -	- -	1.70 -	1.90 -	2.00 -	
		0.88	0.90 -	1.30 -	1.70 -	2.50 -	- -	1.70 -	1.90 -	2.00 -	
		1.00	0.90 -	1.30 -	1.70 -	2.50 -	- -	1.70 -	1.90 -	2.00 -	
		1.13	0.90 -	1.30 -	1.70 -	2.50 -	- -	1.70 -	1.90 -	2.00 -	
		1.25	0.90 -	1.30 -	1.70 -	2.50 -	- -	1.70 -	1.90 -	2.00 -	
		1.50	- -	- -	- -	- -	- -	1.70 -	1.90 -	2.00 -	
		1.75	- -	- -	- -	- -	- -	1.70 -	1.90 -	2.00 -	
		2.00	- -	- -	- -	- -	- -	1.70 -			
		$N_{R.k.II}$	0.90 -	1.30 -	1.70 -	2.50 -	2.90 -	1.70 -	1.90 -	2.00 -	

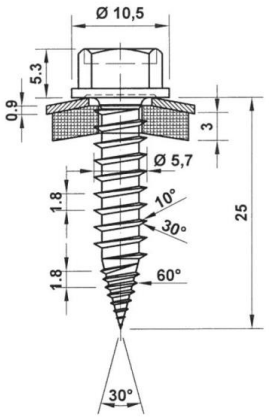
Self-drilling screw

DRILLNOX/N 3.5PI TH8 5.5xL
bimetal with hexagon head and flange Ø 13.5 mm

Annex 22







Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

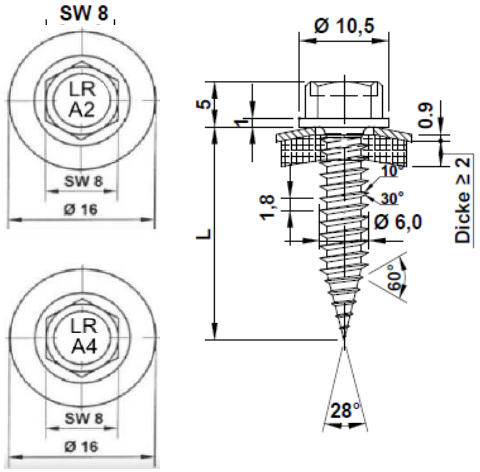
No performance assessed

			Component II t II [mm]						
			0.40	0.50	0.55	0.63	0.75	0.88	1.00
Component I	$V_{R,k}$ [kN]	0.40	0.77 -	0.77 -	0.77 -	0.77 -	0.77 -	0.77 -	0.77 -
		0.50	0.77 -	0.97 -	0.97 -	0.97 -	0.97 -	0.97 -	0.97 -
		0.55	0.77 -	0.97 -	1.06 -	1.06 -	1.06 -	1.06 -	1.06 -
		0.63	0.77 -	0.97 -	1.06 -	1.21 -	1.21 -	1.21 -	1.21 -
		0.75	0.77 -	0.97 -	1.06 -	1.21 -	2.15 -	2.15 -	2.15 -
		0.88	0.77 -	0.97 -	1.06 -	1.21 -	2.15 -	3.17 -	3.17 -
		1.00	0.77 -	0.97 -	1.06 -	1.21 -	2.15 -	3.17 -	3.32 -
	$N_{R,k}$ [kN]	0.40	0.62 -	0.84 -	0.96 -	1.16 -	1.50 -	1.50 -	1.50 -
		0.50	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.89 -	1.89 -
		0.55	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -
		0.63	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -
		0.75	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -
		0.88	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -
		1.00	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -
		$N_{R,k,II}$	0.62 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	1.92 -

Self-drilling screw

DRILLNOX DBS2 5.5xL
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 23



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

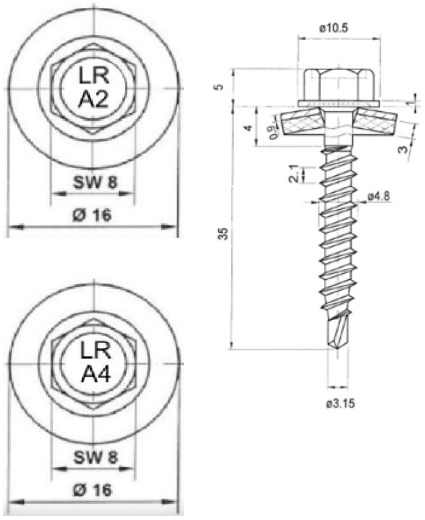
No performance assessed

component I t I [mm]		component II t II [mm]						
		0.40	0.50	0.55	0.63	0.75	0.88	1.00
$V_{R,k}$ [kN]	0.40	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -
	0.50	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -	1.01 -
	0.55	1.01 -	1.01 -	1.06 -	1.06 -	1.06 -	1.06 -	- -
	0.63	1.01 -	1.01 -	1.06 -	1.21 -	1.21 -	1.21 -	- -
	0.75	1.01 -	1.01 -	1.06 -	1.21 -	2.25 -	- -	- -
	0.88	1.01 -	1.01 -	1.06 -	1.21 -	- -	- -	- -
	1.00	1.01 -	1.01 -	1.06 -	- -	- -	- -	- -
$N_{R,k}$ [kN]	0.40	0.75 -	0.84 -	0.96 -	1.16 -	1.50 -	1.50 -	1.50 -
	0.50	0.75 -	0.84 -	0.96 -	1.16 -	1.52 -	1.89 -	1.89 -
	0.55	0.75 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	- -
	0.63	0.75 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	- -
	0.75	0.75 -	0.84 -	0.96 -	1.16 -	1.52 -	- -	- -
	0.88	0.75 -	0.84 -	0.96 -	1.16 -	- -	- -	- -
	1.00	0.75 -	0.84 -	0.96 -	- -	- -	- -	- -
	$N_{R,k,II}$	0.75 -	0.84 -	0.96 -	1.16 -	1.52 -	1.92 -	2.70 -

Self-drilling screw

DRILLNOX DBS3 6.0xL
bimetal with hexagon head and sealing washer ≥ Ø 16.0 mm

Annex 24



Materials

Fastener: Stainless steel A2, A4, A5 – EN ISO 3506

Washer: Stainless steel A2, A4, A5 – EN ISO 3506

Component I: S280GD to S320GD - EN 10346

Component II: structural timber

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

$M_{y,Rk}$ = 6.947 Nm

$f_{ax,k}$ = 8.93 N/mm² for $l_{ef} \geq 30.0$ mm

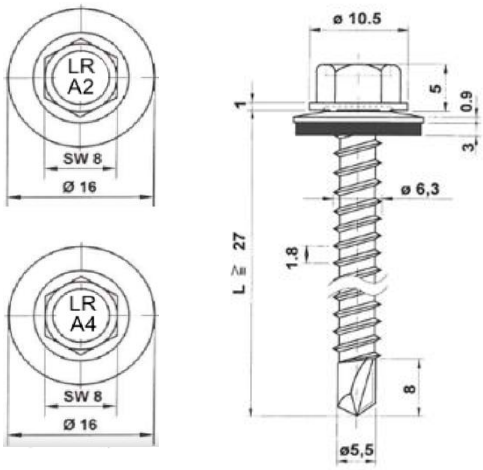
			Component II	
			Timber ≥ C24 $L_g \geq 35$ mm ($l_{eff} \geq 30$	
Component I S280 GD to S350 GD - 10346 t I [mm]	$V_{R.I.k}$ [kN]	0.50	1.28	Failure of component I
		0.55	1.44	
		0.63	1.71	
		0.75	2.10	
		0.88	2.10	
		1.00	2.10	
	$N_{R.I.k}$ [kN]	0.50	1.68	Failure of component I
		0.55	1.90	
		0.63	2.24	
		0.75	2.80	
		0.88	2.80	
		1.00	2.80	
$V_{R.k.II}$; $N_{R.k.II}$			see Annex 3	

The values listed above in dependence on the screw in length l_{ef} are valid for k_{mod} = 0.90 and ρ_k = 350 kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

DRILLNOX BOIS TH8 Ø 4.9 x L
bimetal with sealing washer ≥ Ø 14.0 mm

Annex 25



Materials

Fastener:	Stainless steel A2, A4, A5 – EN ISO 3506
Washer:	Stainless steel A2, A4, A5 – EN ISO 3506
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 6.00$ mm

Timber substructures

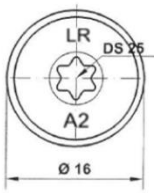
No performance assessed

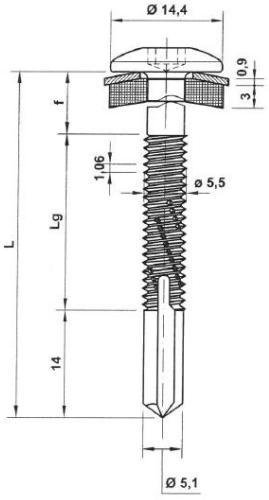
		Component II t II [mm]				
		2.00	2.50	3.00	4.00	5.00
	$M_{t.nom}$	-				
Component I t I [mm] — $V_{R.k}$ [kN]	0.50	1.51 ac	1.51 ac	1.51 ac	1.51 ac	1.51 ac
	0.55	1.51 ac	1.81 ac	1.93 ac	1.93 ac	1.93 a
	0.63	1.51 ac	2.30 ac	2.60 ac	2.60 ac	2.60 a
	0.75	1.51 ac	2.80 ac	3.10 ac	3.10 ac	3.10 a
	0.88	1.51 ac	3.40 ac	3.60 ac	3.60 ac	3.60 a
	1.00	1.51 ac	4.00 ac	4.10 ac	4.10 ac	4.10 a
	1.13	1.51 ac	4.00 ac	4.50 a	4.80 -	- -
	1.25	1.51 ac	4.00 ac	5.70 a	6.00 -	- -
	1.50	1.51 ac	4.00 -	5.70 -	6.00 -	- -
	1.75	1.51 ac	4.00 -	5.70 -	6.00 -	- -
	2.00	1.51 ac	4.00 -	5.70 -	6.00 -	- -
Component I t I [mm] — $N_{R.k}$ [kN]	0.50	1.52 ac	1.52 ac	1.52 ac	1.52 ac	1.52 ac
	0.55	1.81 ac	1.81 ac	1.81 ac	1.81 ac	1.81 a
	0.63	2.22 ac	2.22 ac	2.22 ac	2.22 ac	2.22 a
	0.75	2.76 ac	2.92 ac	2.92 ac	2.92 ac	2.92 a
	0.88	2.76 ac	3.61 ac	3.61 ac	3.61 ac	3.61 a
	1.00	2.76 ac	3.76 ac	4.31 ac	4.31 ac	4.31 a
	1.13	2.76 ac	3.76 ac	4.76 a	4.95 -	- -
	1.25	2.76 ac	3.76 ac	4.76 a	5.58 -	- -
	1.50	2.76 ac	3.76 -	4.76 -	5.58 -	- -
	1.75	2.76 ac	3.76 -	4.76 -	5.58 -	- -
	2.00	2.76 ac	3.76 -	4.76 -	5.58 -	- -
	$N_{R.k.II}$	2.76 -	3.76 -	4.76 -	5.58 -	5.58 -

Self-drilling screw

DRILLNOX/N 3 TH8 Ø 6.3 x L
bimetal with sealing washer ≥ Ø 16.0 mm

Annex 26





Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 12.50$ mm

Timber substructures

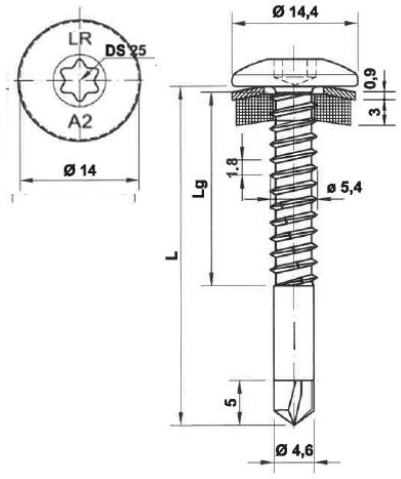
No performance assessed

			Component II t II [mm]					
			6.00		8.00		10.0	
		$M_{t.nom}$	5 Nm					
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	2.60	abcd	2.60	abcd	2.60	abcd
		0.75	3.10	abcd	3.10	abcd	3.10	abcd
		0.88	3.60	ac	3.60	ac	3.60	ac
		1.00	4.10	ac	4.10	ac	4.10	ac
		1.13	4.60	ac	4.60	ac	4.60	ac
		1.25	5.10	ac	5.10	ac	5.10	ac
		1.50	6.00	-	6.00	-	6.00	-
		1.75	6.00	-	6.00	-	6.00	-
		2.00	6.00	-	6.00	-	6.00	-
	$N_{R.k}$ [kN]	0.50	1.35	abcd	1.35	abcd	1.35	abcd
		0.55	1.71	abcd	1.71	abcd	1.71	abcd
		0.63	2.50	abcd	2.50	abcd	2.50	abcd
		0.75	2.90	abcd	2.90	abcd	2.90	abcd
		0.88	3.70	ac	3.70	ac	3.70	ac
		1.00	4.50	ac	4.50	ac	4.50	ac
		1.13	5.00	ac	5.00	ac	5.00	ac
		1.25	5.50	ac	5.50	ac	5.50	ac
		1.50	5.70	-	5.70	-	5.70	-
		1.75	5.70	-	5.70	-	5.70	-
		2.00	5.70	-	5.70	-	5.70	-
		$N_{R.k.II}$	5.70	-	5.70	-	5.70	-

Self-drilling screw

DRILLNOX STAR 12 TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø16 mm

Annex 27



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 3.50$ mm

Timber substructures

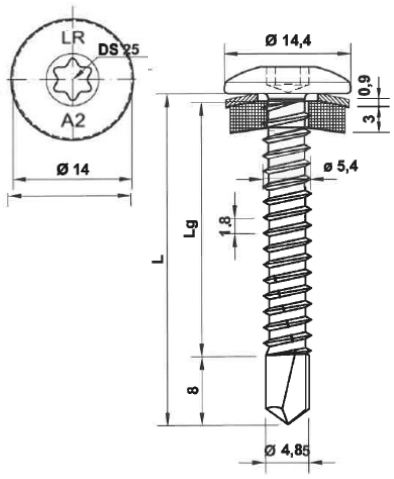
No performance assessed

			Component II t II [mm]				
			1.00	1.25	1.50	2.00	3.00
		$M_{t.nom}$	-				
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	1.60 ac	1.77 ac	2.02 ac	2.19 ac	2.19 ac
		0.75	1.77 -	2.02 ac	2.19 ac	2.53 ac	- -
		0.88	1.94 -	2.19	2.44 ac	2.86 ac	- -
		1.00	2.11 -	2.36	2.69 -	3.12 -	- -
		1.13	2.27 -	2.53	2.86 -	3.45 -	- -
		1.25	2.36 -	2.69	3.03 -	3.62 -	- -
	$N_{R.k}$ [kN]	0.50	0.90 ac	1.22 ac	1.22 ac	1.22 ac	1.22 ac
		0.55	0.90 ac	1.30 ac	1.59 ac	1.59 ac	1.59 ac
		0.63	0.90 ac	1.30 ac	1.70 ac	2.17 ac	2.17 ac
		0.75	0.90 -	1.30 ac	1.70 ac	2.50 ac	- -
		0.88	0.90 -	1.30 -	1.70 ac	2.50 ac	- -
		1.00	0.90 -	1.30 -	1.70 -	2.50 -	- -
		1.13	0.90 -	1.30 -	1.70 -	2.50 -	- -
		1.25	0.90 -	1.30 -	1.70 -	2.50 -	- -
		$N_{R.k.II}$	0.90 -	1.30 -	1.70 -	2.50 -	2.50 -

Self-drilling screw

DRILLNOX STAR 3.5 PI 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø14 mm

Annex 28



Materials

Fastener:	stainless steel (1.4301) – EN 10088
Washer:	stainless steel (1.4301) – EN 10088
Component I:	S280GD to S320GD - EN 10346
Component II:	S235 - EN 10025-1 S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 6.00$ mm

Timber substructures

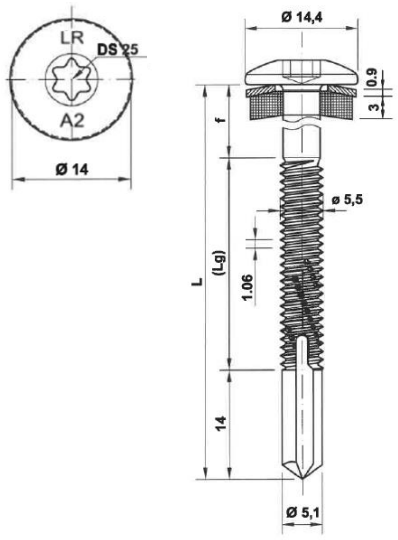
No performance assessed

			Component II t II [mm]			
			2.50	3.00	4.00	5.00
		$M_{t.nom}$	5 Nm			
Component I t I [mm]	$V_{R.k}$ [kN]	0.50	1.40 ac	1.80 ac	1.80 ac	1.80 ac
		0.55	1.80 ac	2.10 ac	2.10 ac	2.10 ac
		0.63	2.20 -	2.40 ac	2.40 ac	2.40 ac
		0.75	2.90 -	2.90 -	2.90 ac	2.90 ac
	$N_{R.k}$ [kN]	0.50	1.22 ac	1.22 ac	1.22 ac	1.22 ac
		0.55	1.59 ac	1.59 ac	1.59 ac	1.59 ac
		0.63	2.17 -	2.17 ac	2.17 ac	2.17 ac
		0.75	3.00 -	3.05 -	3.05 ac	3.05 ac
		$N_{R.k.II}$	3.00 -	3.80 -	3.80 -	3.80 -

Self-drilling screw

DRILLNOX STAR 6 TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø14 mm

Annex 29



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1
S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \leq 12.50$ mm

Timber substructures

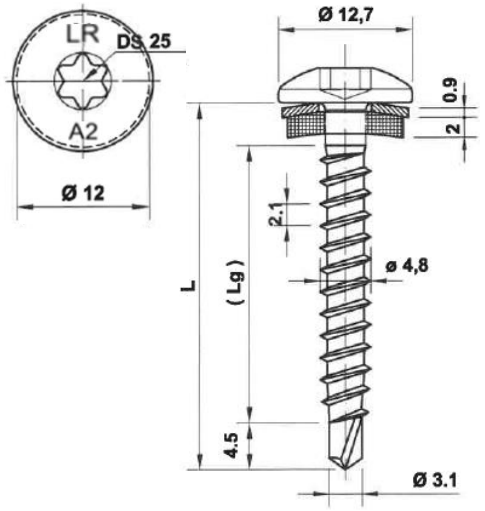
No performance asssessed

			Component II t II [mm]					
			6.00		8.00		10.0	
		$M_{t.nom}$	5 Nm					
Component I t I [mm]	$V_{R.k}$ [kN]	0.63	2.29	abcd	2.29	abcd	2.29	abcd
		0.75	2.80	abcd	2.80	abcd	2.80	abcd
		0.88	3.35	ac	3.35	ac	3.35	ac
		1.00	3.87	ac	3.87	ac	3.87	ac
		1.13	4.42	ac	4.42	ac	4.42	ac
		1.25	4.93	ac	4.93	ac	4.93	ac
		1.50	6.00	-	6.00	-	6.00	-
		1.75	6.00	-	6.00	-	6.00	-
		2.00	6.00	-	6.00	-	6.00	-
	$N_{R.k}$ [kN]	0.50	1.51	abcd	1.51	abcd	1.51	abcd
		0.55	1.78	abcd	1.78	abcd	1.78	abcd
		0.63	2.23	abcd	2.23	abcd	2.23	abcd
		0.75	2.90	abcd	2.90	abcd	2.90	abcd
		0.88	3.63	ac	3.63	ac	3.63	ac
		1.00	4.30	ac	4.30	ac	4.30	ac
		1.13	5.03	ac	5.03	ac	5.03	ac
		1.25	5.70	ac	5.70	ac	5.70	ac
		1.50	5.70	-	5.70	-	5.70	-
		1.75	5.70	-	5.70	-	5.70	-
		2.00	5.70	-	5.70	-	5.70	-
		$N_{R.k.II}$	5.70	-	5.70	-	5.70	-

Self-drilling screw

DRILLNOX STAR 12 TB 5.5xL
bimetal with rounded flat head and sealing washer ≥ Ø14 mm

Annex 30



Materials

Fastener: stainless steel (1.4301) – EN 10088

Washer: stainless steel (1.4301) – EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: structural timber – EN 14081

Drilling-capacity $\Sigma(t_i) \leq 2.00$ mm

Timber substructures

$M_{y,Rk}$ = 4.429 Nm

$f_{ax,k}$ = 8.575 N/mm² for $l_{ef} \geq 30.0$ mm

			Component II t II [mm]	
			-	
		$M_{t.nom}$	5 Nm	
Component I t I [mm]	$V_{R.I.k}$ [kN]	0.50	1.21	ac
		0.55	1.25	ac
		0.63	1.32	ac
		0.75	1.43	ac
	$N_{R.I.k}$ [kN]	0.50	1.45	ac
		0.55	1.45	ac
		0.63	1.45	ac
		0.75	1.45	ac

The values listed above in dependence on the screw in length l_{ef} are valid for k_{mod} = 0.90 and ρ_k = 350 kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

DRILLNOX STAR BOIS TB 4.9xL
bimetal with rounded flat head and sealing washer ≥ Ø12 mm

Annex 31