

PMJ-tec European Technical Assessments

PMJ-tec European Technical Assessment ETA-10/0199 10 March 2021 Fastening screws for metal members and sheeting

















PMJ-tec is a Swiss roofing and facade fastener manufacturer specialising in A2, A4 and other high grade corrosion resistant stainless steel products, which can be supplied with a colour powder coated or nyco moulded head.

People are at the heart of our 'service and innovation' culture, along with a commitment to provide the ever-changing European and world markets with high quality product for both on and off site production, fully supported by experienced and honest technical expertise.

As a European manufacturer, we offer technical and application assistance worldwide.

The PMJ range of stainless steel fasteners is fully warranted and CE marked (supported by European Technical Assessments) and a suite of CAD and BIM models are available.





Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments



European Technical Assessment

ETA-10/0199 of 10 March 2021

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:

Trade name of the construction product

Product family

to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment contains

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of

This version replaces

Deutsches Institut für Bautechnik

Fastening screws of PMJ-tec AG

Fastening screws for metal members and sheeting

PMJ-tec AG Industriestrasse 34 1791 COURTAMAN SCHWEIZ

Plant 1

Plant 2

Plant 3

Plant 4

74 pages including 68 annexes which form an integral part of this assessment

EAD 330046-01-0602

ETA-10/0199 issued on 25 March 2019



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Specific part

1 Technical description of the product

The fastening screws are self-drilling or self-tapping screws made of austenitic stainless steel or carbon steel with anticorrosion coating (listed in Table 1). The fastening screws are normally completed with sealing washers consisting of metal washer and EPDM-seal.

Table 1 - Fastening screws for metal members and sheeting

Annex	Fastening screw	Description					
4	Fastening of perforated sheet	s					
5	Fastening of perforated sheets						
6	Fastening of perforated sheets						
7	Fastening of perforated sheets	s					
8	PMJ-tec 7510	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
9	PMJ-tec 7510	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
10	PMJ-tec 7520	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
11	PMJ-tec 7530	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
12	PMJ-tec 7550 - 4,8	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
13	PMJ-tec 7550 - 5,5	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
14	PMJ-tec 7550 - 6,3	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
15	PMJ-tec 7565	bimetal with hexagon head and sealing washer ≥ Ø 16 mm					
16	PMJ-tec 7310	with hexagon head and sealing washer ≥ Ø 16 mm					
17	PMJ-tec 7320	with hexagon head and sealing washer ≥ Ø 16 mm					
18	PMJ-tec 7325	with hexagon head and sealing washer ≥ Ø 16 mm					
19	PMJ-tec 7330	with hexagon head and sealing washer ≥ Ø 16 mm					
20	PMJ-tec 7340	with hexagon head and sealing washer ≥ Ø 16 mm					
21	PMJ-tec 7340 - 4,8xL	with hexagon head					
22	PMJ-tec 7342	with hexagon head and flange Ø 15 mm					
23	PMJ-tec 7344	with hexagon head and flange Ø 15 mm					
24	PMJ-tec 7346	with hexagon head and flange Ø 15 mm					
25	PMJ-tec 7810	with polyamide bihexagon head and sealing washer ≥ Ø 16 mm					
26	PMJ-tec 7820	with polyamide bihexagon head and sealing washer ≥ Ø 16 mm					

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Table 1 - continued

Annex	Fastening screw	Description
27	PMJ-tec 7825	with polyamide bihexagon head and sealing washer ≥ Ø 16 mm
28	PMJ-tec 7870	bimetal with polyamide bihexagon head and sealing washer ≥ Ø 16 mm
29	PMJ-tec 7880	bimetal with polyamide bihexagon head and sealing washer ≥ Ø 16 mm
30	PMJ-tec 7110	bimetal with rounded undercut head and sealing ring ≥ Ø 10 mm
31	PMJ-tec 7120	bimetal with rounded undercut head and sealing ring ≥ Ø 10 mm
32	PMJ-tec 7140	bimetal with rounded undercut head and sealing ring ≥ Ø 10 mm
33	PMJ-tec 7160	bimetal with rounded undercut head and sealing ring ≥ Ø 10 mm
34	PMJ-tec 7515 - 5,5 x L	bimetal with rounded flat head and sealing washer ≥ Ø 11 mm
35	PMJ-tec 7010	with rounded undercut head and sealing ring ≥ Ø 10 mm
36	PMJ-tec 7040	with rounded undercut head and sealing ring ≥ Ø 10 mm
37	PMJ-tec 7653	with hexagon head and sealing washer ≥ Ø 16 mm
38	PMJ-tec 7673	with hexagon head and sealing washer ≥ Ø 16 mm
39	PMJ-tec 7335	with hexagon head and sealing washer ≥ Ø 16 mm
40	PMJ-tec 7339	with hexagon head
41	PMJ-tec 7641	with hexagon head and sealing washer ≥ Ø 16 mm
42	PMJ-tec 7641	with hexagon head and sealing washer ≥ Ø 19 mm
43	PMJ-tec 7642	with hexagon head and sealing washer ≥ Ø 16 mm
44	PMJ-tec 7642	with hexagon head and sealing washer ≥ Ø 19 mm
45	PMJ-tec 7653	with hexagon head and sealing washer ≥ Ø 19 mm
46	PMJ-tec 7550 - 4,8	bimetal with hexagon head and sealing washer ≥ Ø 14 mm
47	PMJ-tec 7550 - 5,5	bimetal with hexagon head and sealing washer ≥ Ø 14 mm
48	PMJ-tec 7550 - 6,3	bimetal with hexagon head and sealing washer ≥ Ø 14 mm
49	PMJ-tec 7553 - 4,8	bimetal with hexagon head and sealing washer ≥ Ø 14 mm
50	PMJ-tec 7553 - 6,3	bimetal with hexagon head and sealing washer ≥ Ø 14 mm
51	PMJ-tec 7553 - 6,3	bimetal with hexagon head and sealing washer ≥ Ø 16 mm
52	PMJ-tec 7510 - 5,5	bimetal with hexagon head and flange Ø 13,5 mm
53	PMJ-tec 7563 - 5,5	bimetal with hexagon head and sealing washer ≥ Ø 16 mm
54	PMJ-tec 7561 - 4,8	bimetal with sealing washer ≥ Ø 14 mm
55	PMJ-tec 7525 - 6,3	bimetal with sealing washer ≥ Ø 16 mm
56	PMJ-tec 7553 - 5,5	bimetal with sealing washer ≥ Ø 16 mm

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Table 1 - continued

Annex	Fastening screw	Description
57	PMJ-tec 7110-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
58	PMJ-tec 7120-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
59	PMJ-tec 7130-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
60	PMJ-tec 7140-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
61	PMJ-tec 7140-6,3	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
62	PMJ-tec 7160-4,8	bimetal with rounded flat head and sealing washer ≥ Ø 16 mm
63	PMJ-tec 7110-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 14 mm
64	PMJ-tec 7120-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 14 mm
65	PMJ-tec 7130-5,5	bimetal with rounded flat head and sealing washer ≥ Ø 14 mm
66	PMJ-tec 7140-4,8	bimetal with rounded flat head and sealing washer ≥ Ø 12 mm
67	PMJ-tec 7140-6,3	bimetal with rounded flat head and sealing washer ≥ Ø 14 mm
68	PMJ-tec 7160-4,8	bimetal with rounded flat head and sealing washer ≥ Ø 12 mm

The components and the system setup of the product are given in Annex (1-68).

2 Specification of the intended use in accordance with the applicable European Assessment Document 330046-01-0602

The fastening screws are intended to be used for fastening metal sheeting to metal or timber 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 are not intended for re-use.

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 (1-68).

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the fastening screws of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

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

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Shear Resistance of the Connection	see Annexes to this ETA
Tension Resistance of the Connection	see Annexes to this ETA
Design Resistance in combination of tension and shear forces (interaction)	see Annexes to this ETA
Check of Deformation Capacity in case of constraining forces due to temperature	see Annexes to this ETA
Durability	see Annexes to this ETA

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance	
Reaction to fire	Class A1	

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

In accordance with EAD 330046-01-0602, the applicable European legal act is: Commission Decision 1998/214/EC, amended by 2001/596/EC.

The system to be applied 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 with Deutsches Institut für Bautechnik.

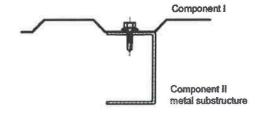
Issued in Berlin on 10 March 2021 by Deutsches Institut für Bautechnik

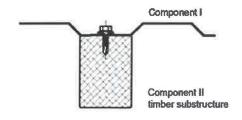
Dr.-Ing. Ronald Schwuchow beglaubigt:
Head of Section Hahn

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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

tı Thickness of metal member or sheeting

t_{II} Thickness of metal substructure

lef Effective screw-in length in timber substructure (without drill point)

ddp Pre-drill diameter of metal member or sheeting and substructure

d_{dp,l} 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_{B,l,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:

 $\begin{array}{ll} M_{y,\text{Rk}} & \text{Characteristic value of yield moment} \\ f_{\text{ax},k} & \text{Characteristic value of withdrawal strength} \\ f_{\text{h},k} & \text{Characteristic value of embedding strength} \end{array}$

Used terms in	n the	Annexes
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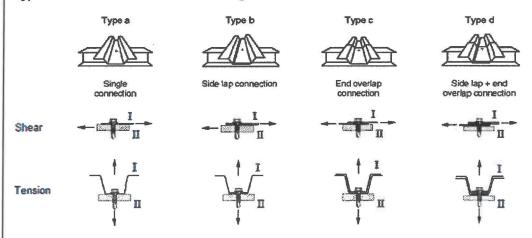
Fastening screws for metal members and sheeting

Annex 1

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Types of connection and occurred loadings



Determination of Design Values

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

$$N_{R,d} = \frac{N_{R,k}}{Y_M} \qquad \qquad V_{R,d} = \frac{V_{R,k}}{Y_M} \label{eq:NRd}$$

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 $\gamma_M = 1,33$ 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:

$$\frac{N_{S,d}}{N_{R,d}} \div \frac{V_{S,d}}{V_{R,d}} \le 1.0$$

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	
Fastening screws for metal members and sheeting	Annex 2

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Timber substructures

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

$$N_{R,k} = \min \left\{ \begin{array}{c} N_{R,l,k} \\ F_{ax,Rk} * k_{mod} \end{array} \right.$$

$$V_{R,k} = \min \left\{ \begin{array}{c} V_{R,I,k} \\ F_{V,Rk} * k_{mod} \end{array} \right.$$

The characteristic values $N_{R,l,k}$ and $V_{R,l,k}$ 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 $M_{v,Rk}$ 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:

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

The characteristic value N_{B,l,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:

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

$$V_{R,k} = \min \left\{ \begin{array}{c} V_{R,l,k} \\ V_{R,k} \end{array} \right.$$

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

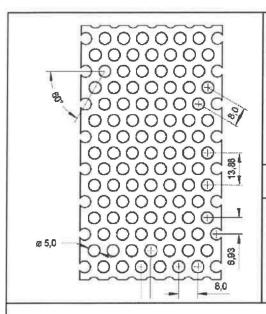
Annex 3

Fastening screws for metal members and sheeting

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<u>Fastener</u>

Self tapping screw from \emptyset 6,3 mm to \emptyset 6,5 mm Self drilling screw from \emptyset 5,5 mm to \emptyset 6,3 mm

Materials

Component I: S280GD to S350GD - EN 10346

Component II: According to the Annex of the corresponding fastener

she	eet	perforated sheet made of S280 GD - 10346				perforated sheet made of S320 GD - 10346				perforated sheet made of S350 GD - 10346			
washer Ø [mm]		16	19	22	25	16	19	22	25	16	19	22	25
	0,75	2,16	2,22	2,24	2,38	2,34	2,40	2,44	2,58	2,54	2,60	2,62	2,78
	0,88	2,56	2,64	2,64	2,78	2,78	2,86	2,86	3,02	3,00	3,10	3,10	3,26
Z.	1,00	2,92	3,04	3,02	3,16	3,16	3,30	3,26	3,42	3,42	3,56	3,52	3,68
_ _ R.I.R	1,13	3,32	3,48	3,42	3,56	3,60	3,76	3,70	3,86	3,88	4,10	4,00	4,16
_	1,25	3,70	3,88	3,80	3,94	4,00	4,20	4,10	4,26	4,32	4,54	4,42	4,60
Component t [mm]	1,50	4,46	4,74	4,56	4,72	4,84	5,12	4,96	5,10	5,22	5,54	5,34	5,50
이 하다	0,75	1,40	1,94	2,14	2,22	1,52	2,08	3,32	2,42	1,64	2,26	2,50	2,60
ا گا	0,88	1,82	2,34	2,62	2,70	1,96	2,54	2,82	2,92	2,12	2,74	3,04	3,14
N N	1,00	2,24	2,74	3,06	3,14	2,44	2,96	3,32	3,42	2,62	3,20	3,58	3,68
N.I.k	1,13	2,74	3,18	3,58	3,64	2,98	3,44	3,88	3,96	3,20	3,70	4,18	4,26
Z	1,25	3,24	3,58	4,08	4,12	3,52	3,88	4,40	4,46	3,78	4,18	4,76	4,80
	1,50	4,36	4,46	5,12	5,12	4,74	4,84	5,56	5,56	5,10	5,22	5,98	5,98

The load bearing capacity of component II is according to the Annex of the corresponding fastener.

The thickness of the perforated sheets which are exposed to wind loads shall be at least 1,00 mm.

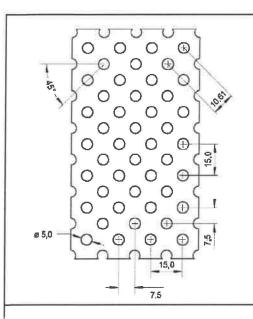
Fastening of perforated sheets Annex 4 Load bearing capacity of component I

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Fastener

Self tapping screw from Ø 6,3 mm to Ø 6,5 mm Self drilling screw from Ø 5,5 mm to Ø 6,3 mm

Materials

Component I: S280GD - EN 10346

Component II: According to the Annex of the corresponding fastener

sheet			perforated sheet made of S280 GD - 10346								
Fastener			self drilling screws Ø 5,5 mm to Ø 6,0 mm					self tapping screws Ø 6,3 mm to Ø 6,5 mm			
washer Ø [mm]		16	19	22	25	16	19	22	25		
		0,75	2,48	2,52	2,84	2,76	2,38	2,64	3,16	3,24	
	VR,I,K [KN]	0,88	3,04	3,12	3,42	3,32	3,02	3,28	3,78	3,88	
		1,00	3,56	3,70	3,84	3,84	3,64	3,96	4,36	4,50	
	¥	1,13	4,14	4,26	4,40	4,40	4,36	4,70	5,00	5,18	
	> -	1,25	4,68	5,84	4,92	4,94	5,06	5,40	5,60	5,84	
Component I t I [mm]	_	1,50	5,76	6,04	5,90	6,10	6,62	6,94	6,88	7,16	
을		0,75	2,88	3,16	3,24	3,14	2,86	3,46	3,72	3,92	
8,		0,88	3,42	3,72	3,76	3,70	3,40	4,02	4,30	4,46	
	<u>z</u> -	1,00	3,92	4,28	4,28	4,20	3,90	4,56	4,82	4,96	
	NR,1,K	1,13	4,46	4,86	4,88	4,72	4,44	5,12	5,38	5,48	
;	Z-	1,25	4,96	5,42	5,42	5,26	4,94	5,66	5,88	5,94	
		1,50	6,04	6,60	6,60	6,38	6,00	6,74	6,92	6,90	

The load bearing capacity of component II is according to the Annex of the corresponding fastener.

The thickness of the perforated sheets which are exposed to wind loads shall be at least 1,00 mm.

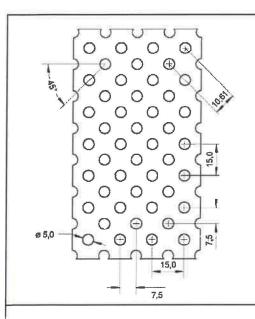
Fastening of perforated sheets

Load bearing capacity of component I

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<u>Fastener</u>

Self tapping screw from Ø 6,3 mm to Ø 6,5 mm Self drilling screw from Ø 5,5 mm to Ø 6,3 mm

Materials

Component I: S320GD - EN 10346

Component II: According to the Annex of the corresponding fastener

sheet			perforated sheet made of \$320 GD - 10346							
Fastener		self drilling screws Ø 5,5 mm to Ø 6,0 mm				self tapping screws Ø 6,3 mm to Ø 6,5 mm				
was	washer Ø [mm]		16	19	22	25	16	19	22	25
		0,75	2,68	2,74	3,08	3,00	2,68	2,88	3,42	3,50
	_	0,88	3,30	3,38	3,70	3,60	3,36	3,60	4,10	4,22
	N N	1,00	3,86	4,00	4,16	4,16	4,02	4,30	4,72	4,88
	VR,I,K	1,13	4,48	4,62	4,76	4,76	4,76	5,08	5,42	5,60
=		1,25	5,06	5,24	5,32	5,36	5,50	5,84	6,08	6,30
Component t [mm]		1,50	6,24	6,54	6,40	6,60	7,10	7,52	7,46	7,76
를 그		0,75	3,12	3,42	3,50	3,40	3,12	3,68	4,06	4,26
8	_	0,88	3,70	4,04	4,08	4,00	3,70	4,32	4,68	4,86
	Z.	1,00	4,24	4,64	4,64	4,54	4,24	4,92	5,24	5,40
	NR,I,K [KN	1,13	4,84	5,26	5,28	5,12	4,84	5,54	5,86	5,96
	Z-	1,25	5,38	5,88	5,88	5,70	5,38	6,14	6,40	6,48
		1,50	6,54	7,16	7,16	6,92	6,54	7,38	7,54	7,52

The load bearing capacity of component II is according to the Annex of the corresponding fastener.

The thickness of the perforated sheets which are exposed to wind loads shall be at least 1,00 mm.

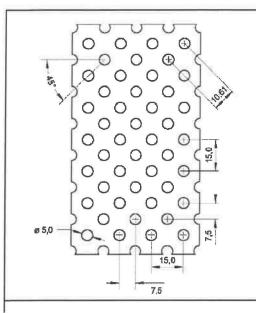
Fastening	g of per	forated	sheets
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Load bearing capacity of component I

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<u>Fastener</u>

Self tapping screw from \varnothing 6,3 mm to \varnothing 6,5 mm Self drilling screw from \varnothing 5,5 mm to \varnothing 6,3 mm

Materials

Component I: S350GD - EN 10346

Component II: According to the Annex of the corresponding fastener

sheet		perforated sheet made of \$350 GD - 10346								
Fastener		self drilling screws Ø 5,5 mm to Ø 6,0 mm				self tapping screws Ø 6,3 mm to Ø 6,5 mm				
was	washer Ø [mm]		16	19	22	25	16	19	22	25
		0,75	2,88	2,92	3,30	3,20	2,98	3,20	3,72	3,92
		0,88	3,54	3,62	3,96	3,86	3,62	3,88	4,42	4,54
	VR,I,K [KN]	1,00	4,14	4,28	4,46	4,46	4,24	4,52	5,08	5,12
	Д, Ж	1,13	4,80	4,94	5,10	5,10	4,92	5,24	5,78	5,74
Ι Ξ		1,25	5,44	5,62	5,70	5,72	5,56	5,92	6,46	6,32
Component		1,50	6,24	6,54	6,40	7,02	6,94	7,36	7,86	7,48
를 그	_	0,75	3,34	3,66	3,76	3,64	3,52	4,16	4,52	4,64
8		0,88	3,96	4,36	4,38	4,28	3,98	4,76	5,04	5,24
	X	1,00	4,54	4,98	4,96	4,86	4,40	5,24	5,50	5,76
	NA,I,K	1,13	5,16	5,64	5,64	5,48	4,86	5,76	5,96	6,32
	2	1,25	5,80	6,28	6,28	6,14	5,38	6,24	6,40	6,80
		1,50	6,54	7,16	7,16	7,46	6,54	7,38	7,54	7,80

The load bearing capacity of component II is according to the Annex of the corresponding fastener.

The thickness of the perforated sheets which are exposed to wind loads shall be at least 1,00 mm.

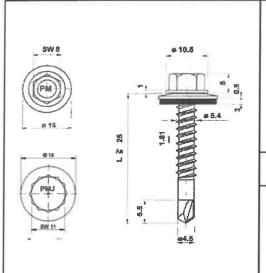
Fastening of perforated sheets	
Load bearing capacity of component I	Annex 7

Z78709.20 8.06.02-666/20

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English translation prepared by DIBt





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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

no performance determined

			Component II t II [mm]										
			2 x 0	,75	2 x 0	,88,	2 x 1,00						
		$M_{t,nom}$		5 Nm									
		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	-					
	Z	1,00	2,40	-	2,90	-	2,90	-					
	V _{R,k} [kN]	1,13	2,40	-	2,90	-	2,90						
	N,	1,25	2,40	-	2,90	-	2,90	-					
		1,50	2,40	-	2,90	-	2,90	-					
		1,75	2,40	-	2,90	-	-	-					
l -		2,00	2,40	-	-	100	-	-					
Component t [mm]		0,50	0,92		1,03	ac	1,08	ac					
		0,55	1,16		1,30	ac	1,36	ac					
E +		0,63	1,70	***	1,90	ac	2,00	ac					
Ŏ		0,75	1,70	-	1,90	-	2,00	-					
	pared .	0,88	1,70	-	1,90	-	2,00	-					
	NR.k [KN]	1,00	1,70	-	1,90	-	2,00	-					
	쏲	1,13	1,70	-	1,90		2,00						
	2	1,25	1,70	-	1,90		2,00	-					
		1,50	1,70	-	1,90	-	2,00	1-1					
		1,75	1,70		1,90		-						
	1.0	2,00	1,70	-	-								
		N _{B,k,II}	1,70		1,90	-	2,00	- [

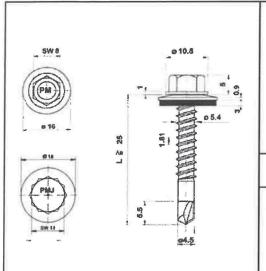
0-	DE LATE	2112	
Se	ıt-ar	IIIIna	screw

PMJ-tec 7510 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

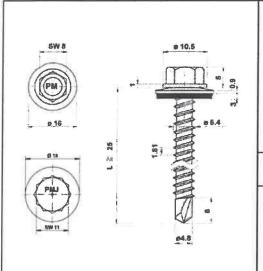
no performance determined

						С	ompoi t II [m		: 11			
			1,0	0	1,2	5	1,5	0	2,0	0	3,0	0
		M _{t,nom}					-					
		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	-	-
	VR,k [kN]	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 t [[mm]	9	0,50	0,49	-	0,70	ac	0,92	ac	1,35	ac	1,57	ac
mponer t l [mm]		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
Ö	Z	0,75	0,90		1,30	ac	1,70	ac	2,50	ac	-	-
	NR,k [kN]	0,88	0,90	-	1,30	-	1,70	ac	2,50	ac	-	-
	Z.	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	-	-	-
	23	N _{R,k,II}	0,90	-	1,30	-	1,70	-	2,50	-	-	-

0	لہ عا			screw
30	IT-N	Irei	ına	SCREW

PMJ-tec 7510 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm





<u>Materials</u>

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 Σ(t_i) ≤ 6.00 mm

Timber substructures

no performance determined

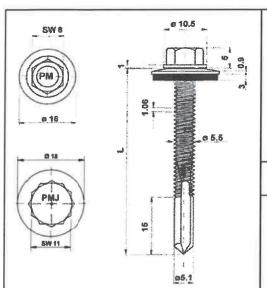
			Component II t II [mm] 3,00 4,00 5,00										
			3,0	00	5,00								
		$M_{t,nom}$		7 Nm									
		0,63	2,60	abcd	3,00	abcd	3,00	abcd					
		0,75	3,00	ac	3,40	ac	3,40	ac					
		0,88	3,40	ac	3,80	ac	3,80	ac					
	Z	1,00	3,70	ac	4,30	ac	4,30	ac					
	V _{R,k} [kN]	1,13	4,00	ac	4,70	ac	-	-					
	> "	1,25	4,40	а	5,10	а	-	_					
		1,50	5,00	140	5,30	-		-					
		1,75	5,00	-	5,30	-	-	-					
l = .		2,00	5,00	-	5,30	-	-	-					
Component t I [mm]	5	0,50	1,57	abcd	1,57	abcd	1,57	abcd					
10 E		0,55	1,98	abcd	1,98	abcd	1,98	abcd					
E =		0,63	2,90	abcd	2,90	abcd	2,90	abcd					
Ō		0,75	3,40	ac	3,40	ac	3,40	ac					
		0,88	4,00	ac	4,00	ac	4,00	ac					
	NR,k [kN]	1,00	4,30	ac	4,50	ac	4,50	ac					
	E,	1,13	4,30	ac	5,00	ac	-	-					
	Z	1,25	4,30	a	5,10	а	-	-					
		1,50	4,30	-	5,10	-	-	-					
		1,75	4,30	-	5,10	-	-	_					
		2,00	4,30	- 1	5,10		-	-					
		N _{R,k,I}	4,30	-	5,10		5,10	-					

Self-drilling screw	
PMJ-tec 7520 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm	Annex 10

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English translation prepared by DIBt





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

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 12.50 \text{ mm}$

Timber substructures

no performance determined

			Component II t II [mm]										
			6,	00	10,0								
		M _{t,nom}		5 Nm									
		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					
	Z	1,00	4,10	ac	4,10	ac	4,10	ac					
	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac					
	, R	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	-					
l		2,00	6,00		6,00	•	6,00						
Component t1 [mm]		0,50	1,35	abcd	1,35	abcd	1,35	abcd					
E E		0,55	1,71	abcd	1,71	abcd	1,71	abcd					
<u>E</u> ∓		0,63	2,50	abcd	2,50	abcd	2,50	abcd					
Ŏ		0,75	2,90	abcd	2,90	abcd	2,90	abcd					
	_	0,88	3,70	ac	3,70	ac	3,70	ac					
	N _{R,k} [kN]	1,00	4,50	ac	4,50	ac	4,50	ac					
	cc ×	1,13	5,00	ac	5,00	ac	5,00	ac					
	Z	1,25	5,50	ac	5,50	ac	5,50	ac					
	- 12	1,50	5,70	-	5,70	-	5,70	-					
		1,75	5,70	-	5,70	-	5,70	-					
	19	2,00	5,70	-	5,70	-	5,70	-					
	15.0	N _{R,k,II}	5,70	-	5,70	-	5,70	-					

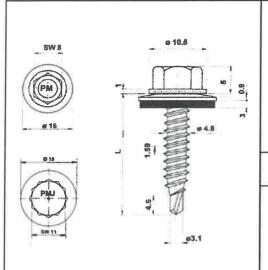
Self-drilling screw	
PMJ-tec 7530 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm	Annex 11

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

no performance determined

	Component II t II [mm]														
			0,63 0,75			0,88	0,88		1,00		3	1,2	5		
		$M_{t,nom}$		5 Nm											
		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	
	V _{R,k} [kN]	0,88	0,90		0,90	-	1,70	-	2,40	-	2,40	-	2,40	-	
	X,	1,00	0,90		0,90	_	1,90	-	2,80	-	2,80	2	2,80	-	
	>	1,13	0,90	-	0,90	-0	1,90	-	2,80	-	2,80	-	2,80	-	
_		1,25	0,90	-	0,90	-	1,90	-	2,80	-	2,80	-	2,80	-	
Component I [mm]		0,50	0,38	-	0,38	-	0,54		0,70	ac	0,86	ac	1,03	ac	
log IE		0,55	0,48	-	0,48	-	0,68		0,89	ac	1,09	ac	1,30	ac	
E T		0,63	0,70	-	0,70	-	1,00		1,30	ac	1,60	ac	1,90	ac	
Ŏ	Z	0,75	0,70	-	0,70	-	1,00		1,30	ac	1,60	а	1,90	а	
	NR,k [kN]	0,88	0,70	-	0,70	-	1,00		1,30		1,60	-	1,90	-	
	£	1,00	0,70	-	0,70	1-	1,00		1,30		1,60	1	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	-	
		$N_{R,k,ll}$	0,70	-	0,70	-	1,00		1,30		1,60	-	1,90	-	

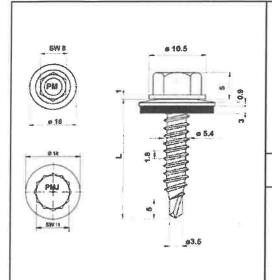
Self-drilling scr	ew
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PMJ-tec 7550 4,8 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

no performance determined

								С	ompoi t II [m		: 11					
			0,63	3	0,75	5	0,88	3	1,0	0	1,1	3	1,2	5	2x0,	75
		M _{t,nom}			4 Nm					5 N	m	5 Nm				
		0,63	1,30	-	1,50	-	1,50	-	1,50	ac	1,50	ac	1,50	ac	1,80	ac
N N	Z Z	0,75	1,30	-	1,50	-	1,50	-	1,50	-	1,50	-	1,50	-	1,80	
	VR.k	0,88	1,30	-	1,50	-	1,90	-	2,30		2,30		2,40		2,40	-
ļ., .		1,00	1,30	-	1,50	-	2,30	-	3,00	-	3,10	:	3,20	-	3,00	-
Component I [mm]		0,50	0,38	-	0,54	-	0,70	-	0,86	ac	1,03	ac	1,13	ac	1,13	ac
I I		0,55	0,48	-	0,68	-	0,89	-	1,09	ac	1,30	ac	1,43	ac	1,43	ac
E T	KN.	0,63	0,70	-	1,00	-	1,30	-	1,60	ac	1,90	ac	2,10	ac	2,10	ac
Ö	*	0,75	0,70	-	1,00		1,30		1,60	-	1,90	-	2,20	-	2,30	-
	NA.A	0,88	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-	2,20	-	2,30	-
		1,00	0,70	-	1,00	-	1,30	ū	1,60	-	1,90	-	2,20	-	2,30	-
		Nekil	0.70	-	1.00		1.30	_	1,60	- 1	1,90	-	2.20	-	2.30	-

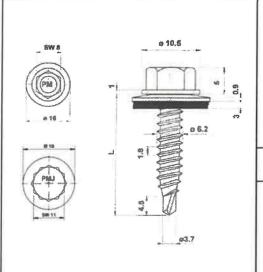
Self-drilling screw

PMJ-tec 7550 5,5 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





<u>Materials</u>

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 $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

no performance determined

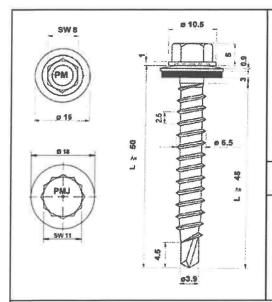
								С	ompor t II [m		Ш					
			0,63	3	0,75	5	0,88	3	1,0	0	1,1	3	5	2x0,75		
		M _{t,nom}		4 Nm							5 N	m				
		0,63	1,60	-	1,60	-	1,60	=	1,60	ac	1,60	ac	1,60	ac	1,80	ac
	Component I t I [mm] { [kN] V _{R,k} [kN]	0,75	1,60	-	1,60	-	1,60	-	1,60	-	1,60	-	1,60	*	1,80	-
		0,88	1,60	-	1,60	-	1,90		2,30	-	2,30	-	2,40	-	2,40	-
		1,00	1,60	-	1,60	-	2,30		3,00	-	3,10	-	3,20	-	3,00	-
m m		0,50	0,43	-	0,54	-	0,70	-	0,86	-	1,03	ac	1,19	ac	1,30	ac
LOC III		0,55	0,55	-	0,68	-	0,89	-	1,09	-	1,30	ac	1,50	ac	1,64	ac
E T	Z	0,63	0,80	-	1,00	-	1,30	-	1,60	-	1,90	ac	2,20	ac	2,40	ac
Ŏ	K. K. Con	0,75	0,80	_	1,00	-	1,30		1,60	-	1,90		2,20	-	2,60	-
N N N	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	-

PMJ-tec 7550 6,3 bimetal with hexagon head and sealing washer \geq Ø 16,0 mm

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English translation prepared by DIBt





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 $\Sigma(t_i)$ ≤ 2.50 mm

Timber substructures

 $M_{y,Rk} = 9,742 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$ for $l_{ef} \ge 45,0 \text{ mm}$

					Co	mpo	onent II					
				ste t II [r			Timber ≥ C24					
			1,50)	-		L _g ≥ 29 mm					
		$M_{t,nom}$		5 N	lm		-					
		0,63	1,40	ac	-	-	1,40	0				
	N N	0,75	1,60	ac	1	_	1,60	-aill omp				
V _{R,k} [kN]	0,88	2,00	ac		1	2,00	Failure of component					
_	Component I t I [mm] kN] v	1,00	2,50	ac		-	2,50	nt of				
ent n]		0,50	1,24	ac		-	1,24					
log Jill		0,55	1,57	ac	-	-	1,57	8 -				
Com T	Z	0,63	2,30	ac	-	-	2,30	-ailu ompo				
	NR,k [kN]	0,75	2,80	ac	-	-	2,80	Failure of component I				
	Ä	0,88	3,20	ac	x - x	-	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 I_{ef} are valid for $k_{mod} = 0,90$ and $\rho_k = 350 \text{ kg/m}^3$. For other combinations of k_{mod} and timber densities see Annex 3.

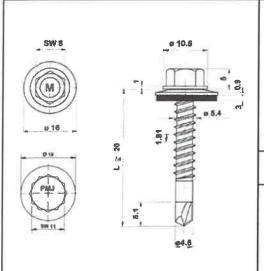
Self-drilling screw

PMJ-tec 7565 bimetal with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

No performance determined

						С	ompoi t II [n		: 11			
			1,0	0 1,		5	1,50		2,0	0	3,0	0
		M _{t,nom}					_					
		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		-
	V _{R,k} [kN]	0,88	2,30	2,30 -			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	-	-	-
l 		1,25	0,63	-	3,20		3,60	-	4,30	-	-	-
Component I t I [mm]		0,50	0,54	ac	0,76	ac	1,03	ac	1,57	ac	1,57	ac
<u> </u>		0,55	0,68	ac	0,95	ac	1,30	ac	1,98	ac	1,98	ac
E T		0,63	1,00	ac	1,40	ac	1,90	ac	2,90	ac	2,90	ac
Ö	Z	0,75	1,00	-	1,40	ac	1,90	ac	2,90	ac	-	-
	NR,k [KN]	0,88	1,00	-	1,40	-	1,90	ac	2,90	ac	-	-
	F	1,00	1,00	-	1,40	-	1,90	-	2,90	-	-	-
		1,13	1,00	-	1,40	-	1,90	-	2,90	-	-	-
		1,25	1,00	-	1,40	-	1,90	-	2,90		-	-
		N _{R,k,II}	1,00	-	1,40	-	1,90	-	2,90	-	-	-

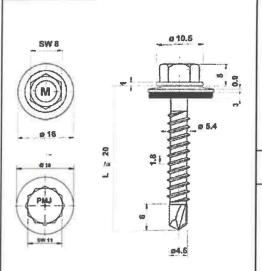
Self-drilling screw

PMJ-tec 7310 with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





Materials

Fastener:

Carbon steel (1.1147) – EN 10263 case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity Σ(t_i) ≤ 3.50 mm

Timber substructures

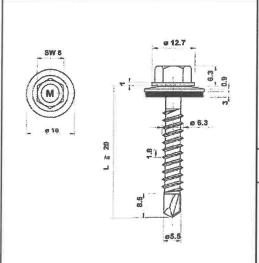
No performance determined

						С	ompor t II [m		; II			
			1,0	0	1,2	5	1,5	0	2,0	0	3,0	0
		M _{t,nom}					_					
		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	-	-
	V _{R,k} [kN]	0,88	2,30	-	2,60		2,90	ac	3,40	ac	_	-
		1,00	2,50	-	2,80		3,20	2	3,70	-	-	-
	>	1,13	2,70	-	3,00		3,40		4,10	-	-	-
-		1,25	2,80	-	3,20		3,60	=	4,30	-	-	-
Component t I [mm]		0,50	0,54	ac	0,76	ac	1,03	ac	1,57	ac	1,57	ac
omponer t I [mm]	5	0,55	0,68	ac	0,95	ac	1,30	ac	1,98	ac	1,98	ac
E ±	8	0,63	1,00	ac	1,40	ac	1,90	ac	2,90	ac	2,90	ac
Ö	Z	0,75	1,00	-	1,40	ac	1,90	ac	2,90	ac	-	-
	NR,k [KN]	0,88	1,00	-	1,40	-	1,90	ac	2,90	ac	-	-
	Z	1,00	1,00	-	1,40	-	1,90	_	2,90	-		-
	_	1,13	1,00	-	1,40	-	1,90	-	2,90	-	-	8)
		1,25	1,00	-	1,40	-	1,90	-	2,90		-	-
		N _{R,k,II}	1,00	- 1	1,40	-	1,90	-	2,90	-	-	-

Self-drilling	screw
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PMJ-tec 7320 with hexagon head and sealing washer ≥ Ø 16,0 mm





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

<u>Drilling-capacity</u> $\Sigma(t_i) \le 6.00 \text{ mm}$

Timber substructures

No performance determined

					(onent [mm]	Ш		
			2,5	0	3,0	00	4,0	00	5,0	00
		$M_{t,nom}$					_			
		0,63	2,30	ac	2,60	abc	2,60	abc	2,60	abc
		0,75	2,80	ac	3,10	ac	3,10	ac	3,10	abc
		0,88	3,40	ac	3,60	ac	3,60	ac	3,60	ac
	Z	1,00	4,00	ac	4,10	ac	4,10	ac	4,10	ac
	V _{R,K} [KN]	1,13	4,00	ac	4,50	ac	4,80	ac	5,10	ac
		1,25	4,00	ac	5,70	ac	6,00	ac		-
		1,50	4,00	ac	5,70	ac	6,00	-	-	
		1,75	4,00	ac	5,70	ac	6,00	-	-	
l =		2,00	4,00	ac	5,70	ac	6,00	-	-	-
Component I t I [mm]		0,50	1,51	ac	1,51	abc	1,51	abc	1,51	abc
		0,55	1,91	ac	1,91	abc	1,91	abc	1,91	abc
<u> </u>	10	0,63	2,80	ac	2,80	abc	2,80	abc	2,80	abc
Ü		0,75	3,50	ac	3,50	abc	3,50	abc	3,50	abc
	=	0,88	4,40	ac	4,40	ac	4,40	ac	4,40	ac
	Na,k [kN]	1,00	5,20	ac	5,20	ac	5,20	ac	5,20	ac
	퐀	1,13	5,70	ac	6,10	ac	6,10	ac	6,10	ac
	Z	1,25	5,70	ac	6,40	ac	7,00	ac	-	-
		1,50	5,70	ac	6,40	ac	7,00	-	-	-
		1,75	5,70	ac	6,40	ac	7,00	-	-	-
		2,00	5,70	ac	6,40	ac	7,00	-	-	-
		N _{R,k,II}	5,70	-	6,40	-	7,00	-	7,00	14

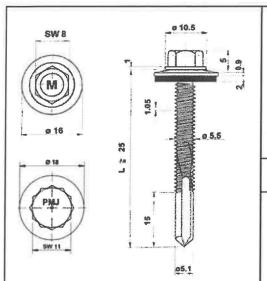
Self-drilling screw

PMJ-tec 7325 with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

<u>Drilling-capacity</u> $\Sigma(t_i) \le 12.50 \text{ mm}$

Timber substructures

No performance determined

					Compo	onent I mm]	ľ	
			6,	00	8,	00	10	,0
		$M_{t,nom}$			18	١m		
		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
	Z	1,00	4,10	ac	4,10	ac	4,10	ac
	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac
	> H	1,25	5,10	ac	5,10	ac	5,10	ac
		1,50	6,00	3%	6,00	(4)	6,00	-
		1,75	6,00	-	6,00	-	6,00	
l .		2,00	6,00	JR	6,00	-	6,00	-
Component t I [mm]		0,50	1,57	abcd	1,57	abcd	1,57	abcd
		0,55	1,98	abcd	1,98	abcd	1,98	abcd
E ±	3	0,63	2,90	abcd	2,90	abcd	2,90	abcd
Ö		0,75	3,40	abcd	3,40	abcd	3,40	abcd
	_	0,88	4,00	ac	4,00	ac	4,00	ac
	NR,k [kN]	1,00	4,50	ac	4,50	ac	4,50	ac
	ĸ.	1,13	5,00	ac	5,00	ac	5,00	ac
	Z	1,25	5,50	ac	5,50	ac	5,50	ac
		1,50	6,60	-	6,60	-	6,60	-
		1,75	6,60	- 1	6,60	-	6,60	-
		2,00	6,60	- 1	6,60	-	6,60	-
		N _{R,k,II}	6,60		6,60	- 1	6,60	-

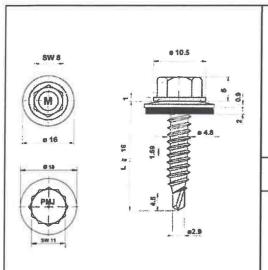
Self-drilling screw	
PMJ-tec 7330 with hexagon head and sealing washer ≥ Ø 16,0 mm	Annex 19

Z78710.20 8.06.02-666/20

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

			Component II t II [mm]												
			0,63		0,75	5	0,88	3	1,0	0	1,1	3	1,2	5	
		$M_{t,nom}$	$\sum t = 1,50 \text{ mm}$: 4 Nm $\sum t = 1,50 \text{ m}$								nm:	6 Nm			
		0,63	1,40	-	1,40	-	1,80	-	2,10	ac	2,10	ac	2,10	ac	
	-	0,75	1,40	-	1,40	-	1,80	-	2,10	ac	2,10	ac	2,10	ac	
	V _{R,k} [kN]	0,88	1,40	-	1,40	-	2,00	-	2,40	ac	2,40	ac	2,40	ac	
	Œ	1,00	1,40	•	1,40	-	2,20	-	2,80		2,80	-	2,80		
	_	1,13	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80	-	
-		1,25	1,40		1,40	-	2,20		2,80	-	2,80	-	2,80	-	
Component t I [mm]		0,50	0,38	•	0,38	-	0,54		0,70	ac	0,86	ac	1,03	ac	
ompone t I [mm]		0,55	0,48	-	0,48	-	0,68		0,89	ac	1,09	ac	1,30	ac	
E T		0,63	0,70		0,70	-	1,00		1,30	ac	1,60	ac	1,90	ac	
Ö	Z	0,75	0,70	-	0,70		1,00		1,30	ac	1,60	а	1,90	a	
	关	0,88	0,70	-	0,70	-	1,00		1,30		1,60	-	1,90	-	
	N _{R,k} [kN]	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	-	

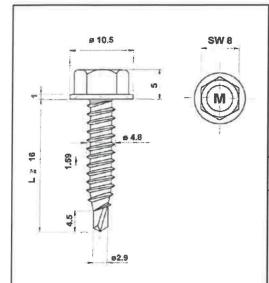
Self-drilling screw

PMJ-tec 7340 with hexagon head and sealing washer ≥ Ø 16,0 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer:

none

Component I:

S280GD to S320GD - EN 10346

Component II: S2

S235 - EN 10025-1

S280GD to S320GD - EN 10346

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

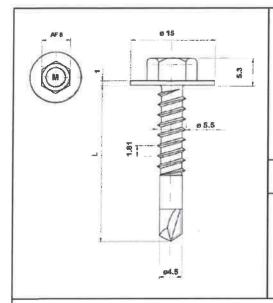
				Component II														
										t II	[mm]							
			0,5	0	0,5	5	0,6	3	0,7	5	0,88	3	1,00)	1,13	3	1,2	5
		$M_{t,nom}$			∑t = 1,	50	mm: 4	Nn	n				∑t = 1,	50	mm: 6	Nr	n	
		0,50	1,51	-	1,51	-	1,51	•	1,51	-	1,51	-	1,51	÷	1,51	-	1,51	-
		0,55	1,51	. =	1,71	-	1,71	-	1,71	-	1,71	-	1,71	-	1,71	-	1,71	-1
		0,63	1,51	-	1,71	-	1,91	-	1,91	-	1,91	-	1,91	-	1,91	-	1,91	-6
		0,75	1,51	-	1,71	-	1,91	-	2,18	-	2,18	-	2,18	-	2,18	=	2,18	-
	Z.	0,88	1,51	-	1,71	-	1,91	-	2,18	100	2,18	-	2,18	-	2,18	-1	2,18	-
	V _{R,k} [kN]	1,00	1,51	-	1,71	-	1,91	-	2,18	-	2,18		2,18	-	2,18		2,18	-
	5	1,13	1,51	-	1,71	-	1,91	-	2,18	-	2,18	-	2,18	-	2,18	-	2,18	-
TE .		1,25	1,51	-	1,71	-	1,91	-	2,18	-	2,18	-	2,18	-	2,18	-	2,18	-
		1,50	1,51	-	1,71	~	1,91		2,18	2	2,18	-	2,18	-	-	-	-	-
		1,75	1,51	-	1,71	-	1,91	-	2,18	*		-	-	-	-	-	-	-
		2,00	1,51	-		-	-	-	-	-	-	-	-	-	-	-	-	-
mponel t I [mm]		0,50	-	-	-	-	0,38	-	0,38	-	0,54	-	0,70	-	0,86	-	1,03	-
E ±		0,55	-	-	-	-	0,48	-	0,48	-	0,68	-	0,89	-	1,09	-	1,30	-
O	- 17	0,63	-	-	-	-	0,70	-	0,70		1,00	-	1,30	-	1,35ª	-	1,35ª	
		0,75	-	-	-	-	0,70	-	0,70	-	1,00	-	1,30	-	1,35ª	H	1,35ª	-
	=	0,88	-	-	-	-	0,70	-	0,70	-	1,00	-	1,30	-	1,35ª	Ь	1,35ª	-
	圣	1,00	-	-	-	-	0,70	-	0,70	-	1,00	-	1,30	-	1,35ª	-	1,35ª	-
	NR,k [kN]	1,13	-	-		-	0,70	-	0,70	-	1,00	-	1,30	-	1,35ª	×	1,35ª	-
	_	1,25	-	-	-	-	0,70		0,70	-	1,00	-	1,30	-	1,35ª		1,35ª	-
	05	1,50	-	-	ж	-	0,70	-	0,70	-	1,00	-	1,30	-	1	•	-	-
	88	1,75	-	-	*	-	0,70	-	-	-	-	-	-	-	-	-		-
	107	2,00	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
		$N_{R,k,II}$	-	-	-	Α.	0,70	-	0,70	-	1,00	-	1,30	-	1,35	-	1,35	-

If both components I and II are made of 320GD or S350GD the values $V_{B,k}$ [kN] may be increased by 8,3%. Only Index a: If component I is made of S320GDor S350GD the values $N_{B,k}$ [kN] may be increased by 8,3%.

Se	lf-dr	illing	screw	1
00	11-01	HILLIE	4 20104	

PMJ-tec 7340 – 4,8xL with hexagon head





Materials

Fastener:

Carbon steel (1.1147) – EN 10263 case hardened, galvanized and coated with "Dural 250" (

Washer: none

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

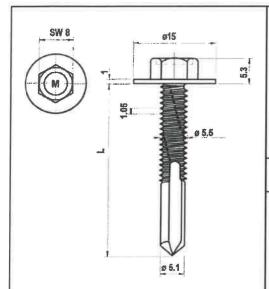
No performance determined

								С	ompoi t II [n		: II					
			1,0	0	1,13		1,25		1,5	1,50		0	2,5	0	3,0	0
		$M_{t,nom}$							5 N	m						
		0,63	1,90	ac	1,90	ac	2,10	ac	2,40	ac	2,60	ac	2,60	ac	2,60	ac
		0,75	2,10	-	2,10	-3	2,40	ac	2,60	ac	3,00	ac	3,00	ac	-	-
		0,88	2,30	-	2,30		2,60		2,90	ac	3,40	-	3,40	1-	-	-
	Z	1,00	2,50	-	2,50	-	2,80		3,20	-	3,70	-	3,70	-	-	-
	V _{R,k} [kN]	1,13	2,70	-	2,70	-	3,00		3,40	-	4,10	-	_ =	-	Э	-
	/s	1,25	2,80	-	2,80	-	3,20		3,60	-	4,30	-	_	-	-	-
		1,50	2,80	-	2,80	-	3,20		3,60	-	-		. 2	-		-
=		1,75	2,80	-	2,80	-	3,20		3,60	-	-	-	-	-	-	-
Component t I [mm]		2,00	2,80	-	2,80	-	3,20		3,60	-	-	-	-	*	-	-
mponel t I [mm]		0,63	1,00	ac	1,00	ac	1,40	ac	1,90	ac	2,90	ac	2,90	ac	2,90	ac
E T		0,75	1,00	-	1,00	-	1,40	ac	1,90	ac	2,90	ac	2,90	ac	-	-
O	9	0,88	1,00		1,00	-	1,40	-	1,90	ac	2,90	-	2,90	-	-	-
		1,00	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-	2,90	-	-	-
	\leq	1,13	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-	-	-	3	-
	N _{R,k} [kN]	1,25	1,00	-	1,00	-	1,40	=	1,90	-	2,90	-	-	-		-
	2	1,50	1,00	-	1,00	*	1,40	-	1,90	-	-	-	-	-	-	-
		1,75	1,00	-	1,00	-	1,40	-	1,90	-	-	-	-	-	-	-
		2,00	1,00	-	1,00	-	1,40		1,90	-	-	-	-	-	-	-
		N _{R,k,II}	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-	2,90	- 1	2,90	-

Self-drilling screw	
PMJ-tec 7342 with hexagon head and flange Ø15 mm	Annex 22

Z78710.20 8.06,02-666/20





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: none

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 12.50 \; mm$

Timber substructures

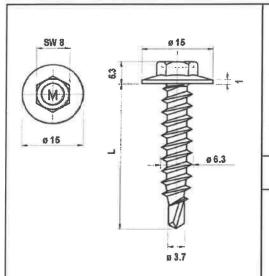
No performance determined

			Component II t II [mm]										
			6,	00	8,0	00	10),0					
		$M_{t,nom}$		5 Nm									
		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					
	Z	1,00	4,10	ac	4,10	ac	4,10	ac					
	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac					
	> H	1,25	5,10	ac	5,10	ac	5,10	ac					
		1,50	6,00	-	6,00	-	6,00	-					
l –		1,75	6,00	-	6,00	-	6,00	-					
Component t [mm]		2,00	6,00		6,00	-	6,00	-					
E S		0,63	2,50	abcd	2,50	abcd	2,50	abcd					
<u>E</u> ±		0,75	2,90	abcd	2,90	abcd	2,90	abcd					
Ō	20	0,88	3,70	ac	3,70	ac	3,70	ac					
	_	1,00	4,50	ac	4,50	ac	4,50	ac					
	Z.	1,13	5,00	ac	5,00	ac	5,00	ac					
	NR,k [KN]	1,25	5,50	ac	5,50	ac	5,50	ac					
	Z	1,50	6,60	-	6,60	-	6,60	-					
		1,75	6,60	-	6,60	- 1	6,60	-					
		2,00	6,60		6,60	-	6,60	-					
		Nr.k,II	6,60	-	6,60	-	6,60	-					

Self-drilling screw

PMJ-tec 7344 with hexagon head and flange Ø15 mm





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: none

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

		Component II t II [mm]												
			0,63	3	0,75	5	0,88	3	1,0	0	1,1	3	1,2	5
		M _{t,nom}						5	Vm					
		0,63	1,40	-	1,40	-	1,80	-	2,10	-	2,10	-	2,10	-
	_	0,75	1,40	-	1,40	-	1,80	-	2,10	-	2,10	-	2,10	-
	V _{R,k} [kN]	0,88	1,40	-	1,40	-	2,00	-	2,40	-	2,40	-	2,40	-
	폯	1,00	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80	_
-	>	1,13	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80	
Component t [mm]		1,25	1,40	-	1,40	-	2,20	=	2,80	-	2,80	-	2,80	-
log ju		0,63	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	ac	1,90	ac
E T		0,75	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	-	1,90	-
Ŏ	Z	0,88	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-
	NR,k [kN]	1,00	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-
	Ä	1,13	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-
		1,25	0,70	-	0,70	-	1,00	-	1,30	H	1,60	-	1,90	
		N _{B,k,II}	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-

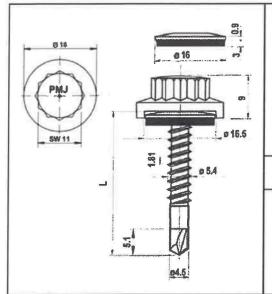
Self-drilling screw

PMJ-tec 7346 with hexagon head and flange Ø15 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 3.50 \text{ mm}$

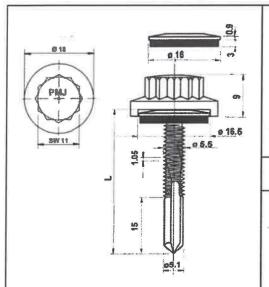
Timber substructures

No performance determined

				Component II t II [mm]												
			1,0	0	1,1	3	1,2	5	1,5	0	2,0	0 2,50			3,00	
		$M_{t,nom}$							5 N	m			0.5			
		0,63	1,90	ac	1,90	ac	2,10	ac	2,40	ac	2,60	ac	2,60	ac	2,60	ac
		0,75	2,10	-	2,10	-	2,40	ac	2,60	ac	3,00	ac	3,00	ac	-	-
		0,88	2,30	-	2,30	-	2,60		2,90	ac	3,40	-	3,40	-	-	-
	Z	1,00	2,50	-	2,50	-	2,80		3,20	-	3,70	-	3,70	-	-	-
	V _{R,k} [kN]	1,13	2,70	-	2,70	-	3,00		3,40	-	4,10	-	-	-	-	
	> N	1,25	2,80	-	2,80	-	3,20		3,60	-	4,30	-	-	-	-	
		1,50	2,80	-	2,80	-	3,20		3,60	-	-	-	-	-		-
		1,75	2,80	-	2,80		3,20		3,60	-	-	-	-	-		-
_	8	2,00	2,80	-	2,80	-	3,20		3,60	-	-	-	-	-	-	-
Component t I [mm]		0,50	0,54	ac	0,54	ac	0,76	ac	1,03	ac	1,57	ac	1,57	ac	1,57	ac
nponer [mm]	- 10	0,55	0,68	ac	0,68	ac	0,95	ac	1,30	ac	1,98	ac	1,98	ac	1,98	ac
# = =		0,63	1,00	ac	1,00	ac	1,40	ac	1,90	ac	2,90	ac	2,90	ac	2,90	ac
Ŏ		0,75	1,00	-	1,00	-	1,40	ac	1,90	ac	2,90	ac	2,90	ac	-	-
	_	0,88	1,00	-	1,00	-	1,40	-	1,90	ac	2,90	-	2,90	-0	-	-
	NR,k [kN]	1,00	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-	2,90	-	-	-
	포	1,13	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-	-	-	-	-
	Z	1,25	1,00	-	1,00	-	1,40	-	1,90	-	2,90	-		-	-	-
	- 1	1,50	1,00	-	1,00	-	1,40	-	1,90				-	-	-	
	-	1,75	1,00	-	1,00	-	1,40	1-	1,90	-	-	-		-		-
		2,00	1,00	-	1,00	-	1,40	-	1,90	-	-	-	-	-	-	-
	-	N _{R,k,II}	1,00	-	1,00	-	1,40	-	1,90	-	2,90	- 1	2,90	-	2,90	-

Self-drilling screw	
PMJ-tec 7810 with polyamide bihexagon head and sealing washer ≥ Ø16 mm	Annex 25





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: stainless steel (1.4301) - EN 10088

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

<u>Drilling-capacity</u> $\Sigma(t_i) \le 12.50 \text{ mm}$

Timber substructures

No performance determined

				Component II t II [mm]									
			6,0	00	10,0								
		$M_{t,nom}$			5 N	lm							
		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					
	Z	1,00	4,10	ac	4,10	ac	4,10	ac					
1	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac					
	N _R	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	-					
1		2,00	6,00		6,00	-	6,00	-					
Component t I [mm]		0,50	1,35	abcd	1,35	abcd	1,35	abcd					
D E		0,55	1,71	abcd	1,71	abcd	1,71	abcd					
듣=		0,63	2,50	abcd	2,50	abcd	2,50	abcd					
O		0,75	2,90	abcd	2,90	abcd	2,90	abcd					
	-	0,88	3,70	ac	3,70	ac	3,70	ac					
	N _{R,k} [kN]	1,00	4,50	ac	4,50	ac	4,50	ac					
	쏲	1,13	5,00	ac	5,00	ac	5,00	ac					
	Z	1,25	5,50	ac	5,50	ac	5,50	ac					
		1,50	6,60	-	6,60	-	6,60	-					
		1,75	6,60	-	6,60	-	6,60	-					
		2,00	6,60	-	6,60	-	6,60						
		N _{R,k,II}	6,60	-	6,60	-	6,60	-					

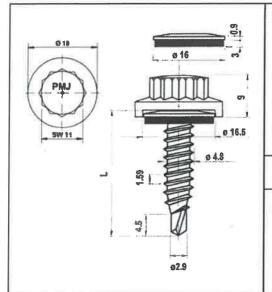
Self-drilling screw	
PMJ-tec 7820 with polyamide bihexagon head and sealing washer ≥ Ø16 mm	Annex 26

Z78710.20 8.06.02-666/20

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

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 $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

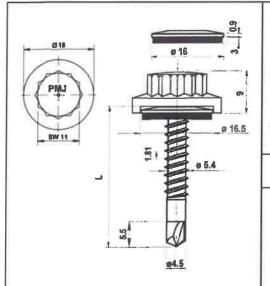
No performance determined

			Component II t II [mm]												
			0,63	0,63 0,75 0,88 1,00					0	1,1	3	1,2	5		
		$M_{t,nom}$						5 I	٧m						
		0,63	1,40	-	1,40	-	1,80	-	2,10	ac	2,10	ac	2,10	ac	
	_	0,75	1,40	-	1,40	-	1,80	-	2,10	ac	2,10	ac	2,10	ac	
	N.	0,88	1,40	-	1,40	-	2,00	-	2,40	-	2,40	-	2,40	-	
	V _{R,k} [kN]	1,00	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80	-	
	>	1,13	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80	-	
-		1,25	1,40	-	1,40	-	2,20	-	2,80	-	2,80	-	2,80		
Component t I [mm]		0,50	0,38	-	0,38		0,54		0,70		0,86	ac	1,03	ac	
pone [mm]		0,55	0,48	-	0,48		0,68		0,89		1,09	ac	1,30	ac	
E T		0,63	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	ac	1,90	ac	
Ō	Z	0,75	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	ac	1,90	ac	
	N _{R,k} [kN]	0,88	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-	
	Z	1,00	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-	
		1,13	0,70	u.	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-dri	illing	screw
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PMJ-tec 7825 with polyamide bihexagon head and sealing washer ≥ Ø16 mm





Materials

Fastener: stainless steel (1.4301) - EN 10088

organic coated

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 $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

No performance determined

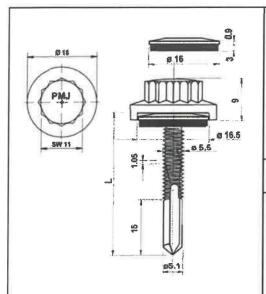
								С	ompoi t II [n		; II					
			1,0	0	1,1	3	1,2	5	1,5	0	2,0	0	2,5	0	3,0	0
		M _{1,nom}							5 N	m						
		0,63	1,90	ac	1,90	ac	2,10	ac	2,40	ac	2,60	ac	2,60	ac	2,60	ac
		0,75	2,10	-	2,10		2,40	ac	2,60	ac	3,00	ac	3,00	ac	-	-
		0,88	2,30	-	2,30	-	2,60		2,90	ac	3,40	-	3,40	ъ		-
	Z.	1,00	2,50	-	2,50	-	2,80		3,20	-	3,70	-	3,70	~	-	-
	VR,k [kN]	1,13	2,70	-	2,70	-	3,00		3,40	-	4,10	-		-	-	-
	N N	1,25	2,80	*	2,80	-	3,20		3,60	-	4,30	-	-	-	-	-
1		1,50	2,80	-	2,80	-	3,20		3,60	_	-	-	-		-	-
		1,75	2,80	-	2,80	-	3,20		3,60	-			1-1	-	-	-
= .		2,00	2,80	-	2,80	-	3,20		3,60	-	-	-	-	-	-	-
Component t I [mm]		0,50	0,49	ac	0,49	ac	0,70	ac	0,92	ac	1,35	ac	1,35	ac	1,57	ac
mpone t [[mm]	-	0,55	0,61	ac	0,61	ac	0,89	ac	1,16	ac	1,71	ac	1,71	ac	1,98	ac
E T		0,63	0,90	ac	0,90	ac	1,30	ac	1,70	ac	2,50	ac	2,50	ac	2,90	ac
O		0,75	0,90	-	0,90	-	1,30	ac	1,70	ac	2,50	ac	2,50	ac	-	-
	_	0,88	0,90	-	0,90	-	1,30	-	1,70	ac	2,50	1-1	2,50	-	-	-
	Na,k [kN]	1,00	0,90	-	0,90	-	1,30	-	1,70	-	2,50	-	2,50	-	-	-
	퐀	1,13	0,90	-	0,90	-	1,30	-	1,70	~	2,50	-	-	-	-	-
	Z	1,25	0,90	-	0,90	-	1,30	5	1,70	100	2,50	-	-	-	-	-
		1,50	-	-	-	-		•			*	-	-			-
		1,75	-	-	-	-	-	-	-	-	-	ī-	-	-	-	
		2,00	-	-	-	-	-		-	-	-	-	_	-	-	-
		$N_{R,k,ll}$	0,90	-	0,90	-	1,30		1,70	-	2,50	-	2,50	-	2,90	-

Self-drilling	screw
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PMJ-tec 7870 bimetal with polyamide bihexagon head and sealing washer \geq Ø16 mm

English translation prepared by DIBt





Materials

Fastener:

stainless steel (1.4301) - EN 10088

organic coated

Washer:

stainless steel (1.4301) - EN 10088

Component I:

S280GD to S320GD - EN 10346

Component II:

S235 - EN 10025-1

Drilling-capacity $\Sigma(t_i) \le 12.50 \text{ mm}$

Timber substructures

No performance determined

				1	Compo t II [onent I mm]	I	
	-		6,1	00	8,6	00	10	,0
		$M_{t,nom}$				-		
		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
	Z	1,00	4,10	ac	4,10	ac	4,10	ac
	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac
1	N.	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	-
l .		2,00	6,00	-	6,00	-	6,00	-
Component t I [mm]	5-	0,50	1,57	abcd	1,57	abcd	1,57	abcd
<u>B</u> .E		0,55	1,98	abcd	1,98	abcd	1,98	abcd
듣		0,63	2,90	abcd	2,90	abcd	2,90	abcd
Ö		0,75	3,40	abcd	3,40	abcd	3,40	abcd
	_	0,88	4,00	ac	4,00	ac	4,00	ac
	X	1,00	4,50	ac	4,50	ac	4,50	ac
	NR,k [KN]	1,13	5,00	ac	5,00	ac	5,00	ac
	Z	1,25	5,50	ac	5,50	ac	5,50	ac
		1,50	6,60	-	6,60	-	6,60	-
	83	1,75	6,60	-	6,60	-	6,60	-
	8	2,00	6,60		6,60		6,60	-
	-	N _{R,k,II}	6,60	-	6,60	-	6,60	-

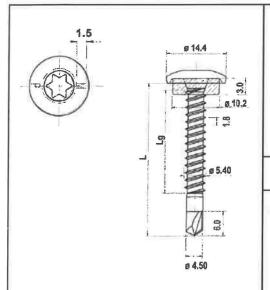
Sel	f-dril	lina	screw
46	1 _ (41 1)	111119	CLICAL

PMJ-tec 7880 bimetal with polyamide bihexagon head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





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

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 3.50 \text{ mm}$

Timber substructures

No performance determined

						С	ompor t II [m		:11			
			1,0	0	1,1	3	1,2	5	1,5	0	2,0	0
		M _{t,nom}					5 N	m				
		0,50	1,00	ac	1,10	ac	1,20	ac	1,40	ac	1,70	ac
	포	0,55	1,10	ac	1,30	ac	1,40	ac	1,70	ac	2,10	ac
II-	V _{R,k} [kN]	0,63	1,30	-	1,40		1,60	ac	1,90	ac	2,40	ac
Component t I [mm]	>	0,75	1,50	-	1,70	-	2,00	-	2,40	-	3,10	ac
[mm]		0,50	0,90	ac	1,10	ac	1,30	ac	1,70	ac	1,90	ac
E T	Z	0,55	0,90	ac	1,10	ac	1,30	ac	1,70	ac	2,30	ac
Ö	NR,k [KN]	0,63	0,90	-	1,10	-	1,30	ac	1,70	ac	2,50	ac
	Z	0,75	0,90	-	1,10	-	1,30	-	1,70	-	2,50	ac
		N _{R,k,II}	0,90	-	1,10	-	1,30	×	1,70	-	2,50	_

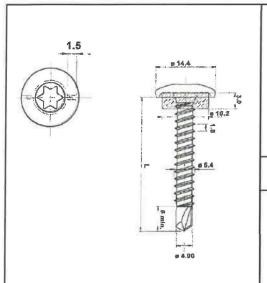
Self-drilling screw

PMJ-tec 7110 bimetal with rounded undercut head and sealing ring \geq Ø10 mm

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English translation prepared by DIBt





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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 6.00 \text{ mm}$

Timber substructures

No performance determined

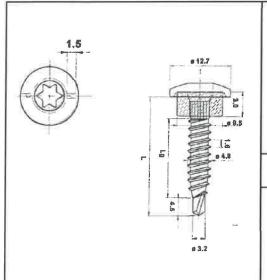
							onent mm]	11		
			2,5	0	3,0	0	4,0	0	5,0	0
		M _{t,nom}				51	١m			
		0,50	1,40	ac	1,80	ac	1,80	ac	1,80	ac
	\mathbb{Z}	0,55	1,80	ac	2,10	ac	2,10	ac	2,10	ac
Ŧ	VR,k [kN]	0,63	2,20	*	2,40	ac	2,40	ac	2,40	ac
Component I t [mm]	>	0,75	2,90		2,90	-	2,90	ac	2,90	ac
log [m.		0,50	1,90	ac	1,90	ac	1,90	ac	1,90	ac
mo ±	Z	0,55	2,30	ac	2,30	ac	2,30	ac	2,30	ac
Ö	NR,k [kN]	0,63	2,80	-	2,80	ac	2,80	ac	2,80	ac
	F	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

PMJ-tec 7120 bimetal with rounded undercut head and sealing ring ≥ Ø10 mm

English translation prepared by DIBt





<u>Materials</u>

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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

					С		onent [mm]	II		
			0,50)	0,5	5	0,6	3	0,7	5
		M _{t,nom}				5	Nm			
		0,50	0,80	-	0,90	-	1,00	-	1,10	-
	VR,k [KN]	0,55	0,80	-	0,90	-	1,00	-	1,30	-
_	a:	0,63	0,80	-	0,90	-	1,00	-	1,60	-
m ent	>	0,75	0,80	-	0,90	-	1,00	-	2,00	-
Component I [mm]		0,50	0,50	-	0,60	4	0,70	-	0,70	-
t I	Z	0,55	0,50	-	0,60	-	0,70	-	0,70	-
Ŏ	NR,k [kN]	0,63	0,50	-	0,60	-	0,70	-	0,70	-
	E.	0,75	0,50	-	0,60	-	0,70	-	0,70	-
		Nr.k.II	0,50	_	0,60	-	0,70	_	0.70	-

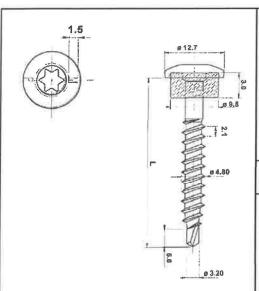
Self-drilling screw	
PMJ-tec 7140 bimetal with rounded undercut head and sealing ring ≥ Ø10 mm	Annex 32

Z78711.20 8.06.02-666/20

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English translation prepared by DIBt





Materials

Fastener: stainless steel (1.4301) - EN 10088

Washer: EPDM sealing

Component I: S280GD to S320GD - EN 10346
Component II: structural timber - EN 14081

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 4,429 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2 \quad \text{for lef } \ge 30,0 \text{ mm}$

				onent II mm]			
			*				
		$M_{t,nom}$	51	٧m			
	=	0,50	1,10	ac			
	돌	0,55	1,30	ac			
=	V _{R,I,k} [kN]	0,63	1,60	ac			
Component I t I [mm]	> '	0,75	2,00	ac			
m		0,50	1,80	ac			
S	Z	0,55	2,10	ac			
	NR,I,k [kN]	0,63	2,50	ac			
	2	0,75	3,20	ac			

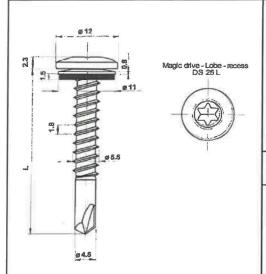
The values listed above in dependence on the screw in length I_{ef} are valid for $k_{mod}=0,90$ and $\rho_k=350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

PMJ-tec 7160 bimetal with rounded undercut head and sealing ring ≥ Ø10 mm

English translation prepared by DIBt





Materials

Fastener:

stainless steel (1.4301) - EN 10088 stainless steel (1.4301) - EN 10088

Washer:

Component I:

S280GD to S320GD - EN 10346

Component II:

S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity Σ(t_i) ≤ 3.50 mm

Timber substructures

								С	ompoi t II [n		: []					
			1,0	0	1,1	3	1,2	5	1,5	0	2,0	0	2,5	0	3,0	0
		M _{1,nom}							5 N	m						
		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		-
	Z	0,88	0,90	-	1,10	-	1,30	-	1,70	-	2,50	-	2,50	-	-	-
	V _{R,k} [kN]	1,00	0,90	-	1,10	-	1,30	-	1,70	-	2,50	7	2,50	-	-	
	S	1,13	0,90	-	1,10	-	1,30	-	1,70	-	2,50		-	-	-	-
		1,25	0,90	-	1,10	-	1,30	-	1,70	-	2,50	-	2	-	-	
		1,50	0,90	-	1,10	-	1,30	-	1,70	-	2,50	-	-	-	-	-
<u> </u>		1,75	0,90	-	1,10	-	1,30	-	1,70	-	-	-	-	-	-	-
Component t I [mm]		2,00	0,90	-	1,10	~	1,30	-	1,70	-	-		-	-	-	-
mpone t I [mm]		0,50	1,04	ac	1,13	ac	1,22	ac	1,40	ac	1,75	ac	1,75	ac	1,75	ac
E T		0,55	1,15	ac	1,27	ac	1,39	ac	1,70	ac	2,05	ac	2,05	ac	-	-
Ö		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	-		-
	NR,k [KN]	1,00	1,46	-	1,68	2	1,90	-	2,57	-	2,93	-	2,93	-	-	-
	Ä,	1,13	1,46	-	1,68	-	1,90	-	2,57	-	2,93	-	-	-	-	-
	2	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	9	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	-

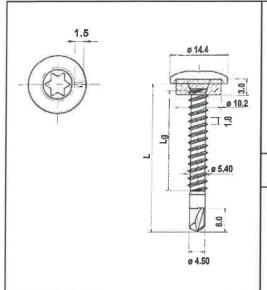
Self-drilling :	screw
-----------------	-------

PMJ-tec 7515 - 5,5 x L bimetal with rounded flat head and sealing washer ≥ Ø11 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: EPDM sealing

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

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

Timber substructures

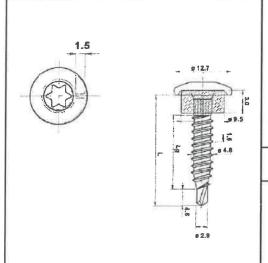
-

			Component II t II [mm]											
			1,0	0	1,1	3	1,25		1,50		2,0	0		
		M _{t,nom}		5 Nm										
		0,50	1,00	ac	1,10	ac	1,20	ac	1,40	ac	1,70	ac		
	VR,k [KN]	0,55	1,10	ac	1,30	ac	1,40	ac	1,70	ac	2,10	ac		
-	T.	0,63	1,30	-	1,40	-	1,60	ac	1,90	ac	2,40	ac		
Component t I [mm]	>	0,75	1,50	*	1,70	-	2,00	-	2,40	-	3,10	ac		
poner [mm]	10	0,50	0,90	ac	1,10	ac	1,30	ac	1,70	ac	1,90	ac		
E T	Z	0,55	0,90	ac	1,10	ac	1,30	ac	1,70	ac	2,30	ac		
Ö	Na,k [kN]	0,63	0,90	-	1,10	-	1,30	ac	1,70	ac	2,80	ac		
	F	0,75	0,90	-	1,10	-	1,30	-	1,70	-	2,90	ac		
		N _{R,k,II}	0,90	-	1,10	-	1,30	-	1,70	-	2,90	-		

Self-drilling screw	
PMJ-tec 7010 with rounded undercut head and sealing ring ≥ Ø10 mm	Annex 35

English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: EPDM sealing

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

					С		onent [mm]	11							
			0,50)	0,5	5	0,6	3	0,7	5					
		M _{t,nom}				5	Nm								
	_	0,50	0,80	-	0,90	-	1,00		1,10	-					
	圣	0,55	0,80	-	0,90	-	1,00		1,30	-					
=	포	0,63	0,80	-	0,90	-	1,00	-	1,60	-					
n]	V _{R,k} [kN]	>	>	>	>	>	0,75	0,80	-	0,90	-	1,00		2,00	-
Component t [mm]		0,50	0,50	-	0,60	-	0,70	-	0,70	-					
t T	Z	0,55	0,50	-	0,60	-	0,70	-	0,70	-					
ŭ	NR,k [KN]	0,63	0,50	-	0,60	-	0,70	-	0,70	-					
	Z	0,75	0,50	-	0,60	-	0,70	-	0,70	-					
		N _{R,k,II}	0,50	-	0,60	-	0,70	7-	0,70	-					

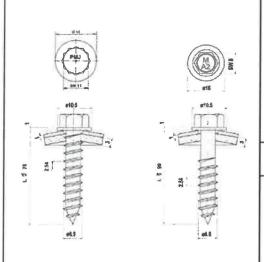
Self-drilling screw

PMJ-tec 7040 with rounded undercut head and sealing ring \geq Ø10 mm

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English translation prepared by DIBt





Materials Fastener:

Stainless steel A2, A4, A5 - EN ISO 3506 Stainless steel A2, A4, A5 - EN ISO 3506

Washer:

Component I: S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity

see table below

Timber substructures

 $M_{y,Rk} = 9,742 \text{ Nm}$

8,575 N/mm² $f_{ax,k} =$

for lef ≥ 26,0 mm

											Co	mpone	ent l	I							
										t II [m	m]									Tie	ala a u
			0,63		0,75	0,88	3	1,0	0	1,1	3	1,2	5	1,5)	2,0	0	3,0	0		nber 024
			(0	4,0				Ø	4,5					Ø!			Ø5	,7		24 mm
				_		3 Nr	n								51						
		0,63	1,30	-	1,50 -	1,80	-	2,00	ac	_	ac		ac	2,90	ac		ac	2,90	ac	2,90	
		0,75	1,40	-	1,60 -	1,90	-	2,20	ac	2,50	ac		ac	3,10	ac		ac	-	ac	3,20	Fa:
		0,88	1,50	-	1,70 -	2,00	-	2,30	-	2,60	-	2,80	ac	3,20	ac	3,20	ac	3,20	ac	3,40	lure
	Z.	1,00	1,50	-	1,80 -	2,10	-	2,50	-	2,80	-	3,10	-	3,60	-	3,60		3,60	ac	3,50	of.
	V _{R,k} [kN]	1,13	1,60	-	1,80 -	2,20	-	2,60	-	2,90	-	3,20	-	3,80	-	3,80		3,80	ac	3,80	co
	> H	1,25	1,60	-	1,90 -	2,30	-	2,70	-	3,00	-	3,30	-	4,00	-	4,00	-	4,00	ac	4,00	npo
		1,50	1,60	-	1,90 -	2,40	-	2,80	-	3,20	-	3,50	-	4,00	-	4,30	-	4,30	ac	4,30	Failure of component I
		1,75	1,60	-	1,90 -	2,40		2,80	-	3,20	-	3,50		4,00	-	4,30	-	4,30	-	4,30	<u> </u>
l –		2,00	1,60	-	1,90 -	2,40	-	2,80	-	3,20	-	3,50		4,00	-	4,30	-	4,30	-	4,30	
Component t I [mm]		0,50	0,49	-	0,59 -	0,70	-	0,76	ac	0,86	ac	0,97	ac	1,13	ac	1,19	ac	1,19	ac	1,19	
mponer t I [mm]		0,55	0,61		0,75 -	0,89		0,95	ac	1,09	ac	1,23	ac	1,43	ac	1,50	ac	1,50	ac	1,50	
m ±		0,63	0,90	-	1,10 -	1,30	-	1,40	ac	1,60	ac	1,80	ac	2,10	ac	2,20	ac	2,20	ac	2,20	Fa
0		0,75	0,90	-	1,10 -	1,30	-	1,40	ac	1,60	ac	1,80	ac	2,10	ac	2,80	ac	2,80	ac	2,80	Failure of component l
		0,88	0,90		1,10 -	1,30	-	1,40	-	1,60	-	1,80	ac	2,10	ac	3,50	ac	3,50	ac	3,50	9
	N _{R,k} [kN]	1,00	0,90	-	1,10 -	1,30	-	1,40	-	1,60		1,80	-	2,20	-	3,60	-	3,60	ac	3,60	8
	픘	1,13	1,00		1,20 -	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	ac	3,60	mp
	2	1,25	1,00 -	-	1,20 -	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	ac	3,60	one
	- 15	1,50	1,00	-	1,20 -	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	ac	3,60	<u>=</u>
	139	1,75	1,00	-	1,20 -	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-	3,60	
		2,00	1,00	-	1,20 -	1,40	-	1,50	_	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-	3,60	
	10	N _{R,k,II}	1,00	-	1,20 -	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-	3,60	
									(re of nent II

The values listed above in dependence on the screw in length l_{ef} are valid for $k_{mod} = 0,90$ and $\rho_{k} = 350 \text{ kg/m}^3$. For other combinations of kmod and timber densities see Annex 3.

Self-tapping screw

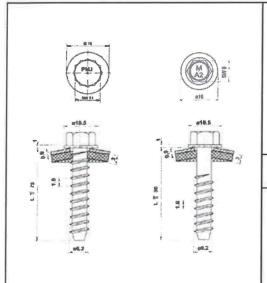
PMJ-tec 7653 with hexagon head and sealing washer ≥ Ø16 mm Annex 37

see Annex 3

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English translation prepared by DIBt





Materials

Fastener: Washer:

Stainless steel A2, A4, A5 – EN ISO 3506 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

see table below

Timber substructures

									nponei II [mm						
		1,2	5	1,5	0	2,	00	3,	00	4,	00	6,	00	≥ 7	,00
	d _{pd}		Ø:	5,0				Ø	5,3			Ø	5,5	Ø:	5,7
	$M_{t,nom}$								5 Nm						
	0,63	2,50	ac	2,70	ac	2,90	abcd	3,00	abcd	3,10	abcd	3,10	abcd	3,10	abcd
	0,75	2,60	ac	3,10	ac	3,30	ac	3,60	ac	3,70	abcd	3,70	abcd	3,70	abcd
	0,88	2,80	ac	3,20	ac	3,80	ac	4,10	ac	4,30	ac	4,40	ac	4,40	ac
	1,00	3,20	-	3,60	ac	4,10	ac	4,80	ac	4,90	ac	5,10	ac	5,10	ac
	1,13	3,40	-	4,00		4,60	ac	5,40	ac	5,60	ac	5,80	ac	5,80	ac
	1,25	3,60	-	4,20	-	5,00	ac	6,10	ac	6,30	ac	6,50	ac	6,50	ac
	1,50	3,70	-	4,40	-	5,70	-	6,80	-	7,10	-	7,30	-	7,30	m
100	1,75	3,70	-	4,70	-	6,20	-	7,60	4	7,70		8,10	180	8,10	-
	2,00	3,80	-	4,90	-	6,90	-	7,80	-	7,90		8,10	-	8,10	-
	0,50	0,97	ac	1,35	ac	1,51	abcd	1,51	abcd	1,51	abcd	1,51	abcd	1,51	abcd
	0,55	1,23	ac	1,71	ac	1,91	abcd	1,91	abcd	1,91	abcd	1,91	abcd	1,91	abcd
	0,63	1,80	ac	2,50	ac	2,80	abcd	2,80	abcd	2,80	abcd	2,80	abcd	2,80	abcd
	0,75	2,00	ac	2,60	ac	3,10	ac	3,60	ac	3,60	abcd	3,60	abcd	3,60	abcd
	0,88	2,00	ac	2,70	ac	3,30	ac	3,80	ac	3,80	ac	3,80	ac	3,80	ac
포	1,00	2,00	-	2,70	ac	3,40	ac	4,00	ac	4,00	ac	4,00	ac	4,00	ac
X X X	1,13	2,00	-	2,70	-	3,60	ac	4,40	ac	4,40	ac	4,40	ac	4,40	ac
2 -	1,25	2,00	-	2,70	-	3,60	ac	4,80	ac	4,80	ac	4,80	ac	4,80	ac
	1,50	2,00	-	2,70	-	3,60	-	5,60	-	5,60	-	5,60		5,60	-
	1,75	2,00	-	2,70	-	3,60	- 1	5,80	-	6,90	-	7,10	-	7,10	-
	2,00	2,00	-	2,70	-	3,60	-	6,00	-	7,30	-	7,60	-	7,60	-
	N _{R,k,It}	2,00	-	2,70	-	3,60		6,00	-	7,30	-	7,60	-	7,60	8-

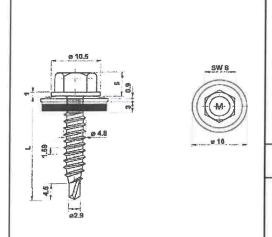
Self-ta	pniaa	screw
OCII-IU	Philid	301044

PMJ-tec 7673 with hexagon head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) - EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer: Carbon steel, galvanized

Component I: S235 to S275 - EN 10025-1

Component II: S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

Component II t II [mm] 1,25 0,50 0,55 0,63 0,75 0,88 1,00 1,13 $M_{t,nom}$ 0,50 0,89 0,89 0,89 0,89 0,89 0,89 0,89 0,89 0,96 0,96 0,55 0,89 0,96 0,96 0,96 0,96 0,96 0,63 0,89 0,96 1,02 1,02 1,02 1,02 1,02 1,02 0,75 0,96 1,02 1,55 ac 1,55 ac 1,55 ac 1,55 1,55 0,89 ac ac 1,02 1,55 ac 0,88 0,89 0,96 1,55 ac 1,55 ac 1,55 ac 1,55 ac 1,00 0,89 0,96 1,02 1,55 ac 1,55 ac 1,55 ac 1,55 1,55 ac ac 1,13 0,89 0,96 1,02 1,55 ac 1,55 ac 1,55 ac 1,55 1,55 ac ac Component I t I [mm] 1,25 0,89 0,96 1,02 1,55 ac 1,55 ac 1,55 ac 1,55 1,55 ac ac 1,00 0,50 0,67 0,70 1,30 0.65 0.70 1,60 1,90 0,55 0,70 1,00 1,30 1,90 0,67 0,70 1,60 0,65 1,00 0,63 0,65 0,67 0,70 0,70 1,30 1,60 1,90 0,70 1,00 ac 1,30 ac 0,75 0,65 0,67 0,70 ac 1,60 1,90 ac ac 0,88 0,70 1,30 ac 0,65 0,67 0,70 ac 1,00 ac 1,60 1,90 ac ac 1,00 0,65 0,67 0,70 0,70 ac 1,00 ac 1,30 ac 1,60 ac 1,90 ac 0,67 0,70 1,00 1,30 ac 1,13 0,65 0,70 ac ac 1,60 ac 1,90 ac 1,25 0,67 0,70 0,70 ac 1,00 1,30 ac 1,60 1,90 0,65 ac ac ac 0,65 0,67 0,70 0,70 1,00 1,30 1,60 1,90 $N_{R,k,ll}$

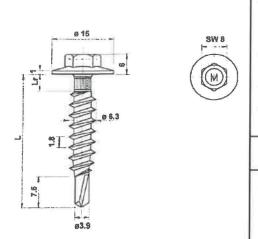
Self-drilling screw

PMJ-tec 7335 with hexagon head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





Materials

Fastener: Carbon steel (1.1147) – EN 10263

case hardened, galvanized and coated with "Dural 250"

Washer:

none

Component I:

S280GD to S320GD - EN 10346

Component II:

S235 - EN 10025-1

S280GD to S320GD - EN 10346

Drilling-capacity Σ(t_i) ≤ 2.50 mm

Timber substructures

Component II t II [mm] 0.63 0,75 0.88 1,00 1,13 1,25 $M_{t,nom}$ 0,63 1,80 1,80 1,80 1,80 1,80 1,80 0,75 1,80 2,48 2,48 2,48 2,48 2,48 2,48 3,36 1,80 3,36 3,36 3,36 0,88 1,00 1,80 2,48 3,36 4,23 ac 4,23 ac 4,23 ac 1,13 1,80 2,48 3,36 4,23 ac 4,23 ac 4,23 ac Component I t I [mm] 1,80 2,48 3,36 4,23 ac 4,23 ac 1,25 4,23 ac 0,63 0,70 0,70 1,00 1,30 1,60 1,90 0,75 0,70 0,70 1,00 1,30 1,60 1,90 0,70 1,00 1,30 1,60 0,88 0,70 1,90 1,00 0,70 0,70 1,00 1,30 ac 1,60 ac 1,90 ac 1,13 0,70 0,70 1,30 ac 1,00 1,60 ac 1,90 ac 1,25 0,70 0,70 1,00 1,30 1,60 ac 1,90 ac ac

1,00

1,30

1,60

1,90

Self-drilling screw	Se	lf-dr	illing	screw
---------------------	----	-------	--------	-------

0,70

 $N_{R,k,II}$

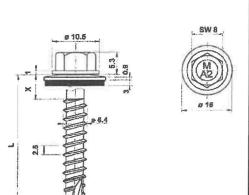
0,70

PMJ-tec 7339 with hexagon head

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English translation prepared by DIBt





Materials

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

Washer:

S280GD to S320GD - EN 10346 Component I:

Structural timber - EN 14081 Component II:

Drilling-capacity $\Sigma(t_i) \le 1.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 14,830 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$ for lef ≥ 35,0 mm

							Cor	npone	nt II						
							t	II [mm	1]						
		lef	35	38	41	44	47	50	53	56	59	62	65		
	1	M _{t,nom}						-							
		0,50	1,24	1,38	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	
		0,55	1,24	1,38	1,52	1,63	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	8 π
	V _{R,k} [kN]	0,63	1,24	1,38	1,52	1,66	1,81	1,95	2,00	2,00a	2,00a	2,00a	2,00a	2,00ª	Failure of component
	۳. ج	0,75	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,62	2,62ª	one
_	>	0,88	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,71ª	of I
ent nj		1,00	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,79ª	
Component I t1 [mm]		0,50	1,30	1,45	1,57	1,57ª	1,57ª	1,57a	1,57ª	1,57a	1,57ª	1,57a	1,57ª	1,57ª	
E I		0,55	1,30	1,45	1,61	1,76	1,78ª	1,78ª	1,78ª	1,78ª	1,78ª	1,78ª	1,78ª	1,78ª	8 7
O	Z	0,63	1,30	1,45	1,61	1,76	1,91	2,06	2,10	2,10a	2,10a	2,10a	2,10a	2,10 ^a	Failure ompone
	NR,k [KN]	0,75	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,62	2,62	2,62ª	Failure of component
	Z	0,88	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,09ª	nt of
		1,00	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,55ª	
		N _{R,k,II}	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81		

Index a: If component I is made of S320GD or S350GD the values may be increased by 8,0%. The values listed above in dependence on the screw in length l_{ef} are valid for $k_{mod} = 0.90$ and $\rho_k = 350 \text{ kg/m}^3$. For other combinations of kmod and timber densities see Annex 3.

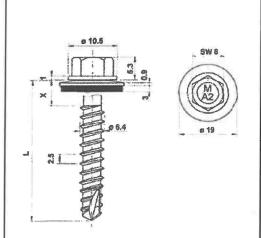
Self-drilling screw

PMJ-tec 7641 with hexagon head and sealing washer ≥ Ø16,0 mm

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English translation prepared by DIBt





Materials

Fastener: Stainless stee Washer: Stainless stee

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

Component I: S280GD

S280GD to S320GD - EN 10346

Component II: Structural timber - EN 14081

Drilling-capacity

 $\Sigma(t_i) \le 1.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 14,830 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$

for let ≥ 35,0 mm

							Cor	npone	nt II						
							t	II [mm	1]						
		lef	35	38	41	44	47	50	53	56	59	62	65		
		M _{t,nom}						-							
		0,50	1,24	1,38	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	
	_	0,55	1,24	1,38	1,52	1,63	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	8 7
	N.	0,63	1,24	1,38	1,52	1,66	1,81	1,95	2,00	2,00a	2,00a	2,00a	2,00ª	2,00ª	Failure of component
	V. R.	0,75	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,62	2,62ª	ure one
	>	0,88	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,71ª	of ent
ont		1,00	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,79ª	
Component t I [mm]		0,50	1,30	1,45	1,61	1,64a	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	
E T		0,55	1,30	1,45	1,61	1,76	1,81ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	8 -
Ö	Z	0,63	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,23	2,23ª	2,23a	2,23ª	2,23ª	Failure of component I
	N _{R,k} [kN]	0,75	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,62	2,62	2,81ª	one
	Z,	0,88	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,25a	ent I
		1,00	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,69ª	
		N _{R,k,II}	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81		

Index a: If component I is made of S320GD or S350GD the values may be increased by 8,0%. The values listed above in dependence on the screw in length l_{ef} are valid for $k_{mod}=0,90$ and $\rho_k=350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

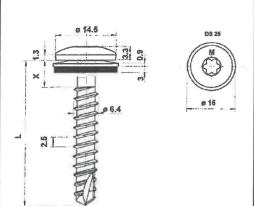
Self-drilling screw

PMJ-tec 7641 with hexagon head and sealing washer ≥ Ø19,0 mm

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English translation prepared by DIBt





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 – EN 14081

 $\underline{Drilling\text{-capacity}} \qquad \qquad \Sigma(t_i) \leq 1.00 \text{ mm}$

Timber substructures

 $M_{y,Rk}=\ 14,830\ Nm$

 $f_{ax,k} = \quad 8,575 \text{ N/mm}^2 \qquad \text{for } I_{ef} \geq 35,0 \text{ mm}$

							Cor	npone	nt II						
							t	II [mm	1]						
		lef	35	38	41	44	47	50	53	56	59	62	65		
	ı	VI _{t,nom}						-							
		0,50	1,24	1,38	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	1,38ª	
	_	0,55	1,24	1,38	1,52	1,63	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	8 ∓
	V _{R,k} [kN]	0,63	1,24	1,38	1,52	1,66	1,81	1,95	2,00	2,00ª	2,00a	2,00a	2,00ª	2,00a	Failure of component l
	ᇼ	0,75	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,62	2,62a	one
_	> .	0,88	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,71ª	ant I
Component I t I [mm]		1,00	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,79ª	
الله الله		0,50	1,30	1,45	1,57	1,57ª	1,57a	1,57a	1,57a	1,57ª	1,57ª	1,57ª	1,57ª	1,57ª	
Ē		0,55	1,30	1,45	1,61	1,76	1,78ª	1,78ª	1,78ª	1,78ª	1,78ª	1,78a	1,78ª	1,78ª	S T
Ö	Z	0,63	1,30	1,45	1,61	1,76	1,91	2,06	2,10	2,10a	2,10ª	2,10ª	2,10ª	2,10ª	Failure of component
	N _{R,k} [kN]	0,75	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,62	2,62	2,62ª	anc one
	E	0,88	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,09ª	nt of
		1,00	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,55ª	
	-	N _{R,k,II}	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81		

Index a: If component I is made of S320GD or S350GD the values may be increased by 8,0%. The values listed above in dependence on the screw in length I_{ef} are valid for $k_{mod} = 0,90$ and $p_k = 350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

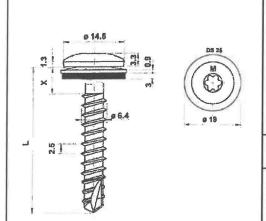
Self-drilling screw

PMJ-tec 7642 with rounded flat head and sealing washer ≥ Ø16,0 mm

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English translation prepared by DIBt





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 - EN 14081

Drilling-capacity

 $\Sigma(t_i) \le 1.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 14,830 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$

for lef ≥ 35,0 mm

							Cor	npone	nt II						
							t	II [mm	1]						
		lef	35	38	41	44	47	50	53	56	59	62	65		
	ı	$M_{t,nom}$				9		-							
		0,50	1,24	1,38	1,38ª	1,38a	1,38a	1,38a	1,38ª	1,38ª	1,38ª	1,38a	1,38ª	1,38ª	
	_	0,55	1,24	1,38	1,52	1,63	1,63ª	1,63ª	1,63ª	1,63ª	1,63ª	1,63a	1,63ª	1,63ª	8 -
	Z	0,63	1,24	1,38	1,52	1,66	1,81	1,95	2,00	2,00a	2,00a	2,00a	2,00ª	2,00a	Failure of component
	V _{R,k}	0,75	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,62	2,62a	ire one
_	>	0,88	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,71ª	ent I
Component t I [mm]		1,00	1,24	1,38	1,52	1,66	1,81	1,95	2,09	2,23	2,38	2,52	2,66	2,79ª	
nponer I [mm]		0,50	1,30	1,45	1,61	1,64ª	1,64a	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	1,64ª	
E E		0,55	1,30	1,45	1,61	1,76	1,81ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	1,87ª	8 -
Ö	Z	0,63	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,23	2,23ª	2,23a	2,23ª	2,23ª	Failure of component I
	NR,k [KN]	0,75	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,62	2,62	2,81ª	ure
	Ä.	0,88	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,25ª	nt of
		1,00	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81	3,69ª	
		N _{R,k,II}	1,30	1,45	1,61	1,76	1,91	2,06	2,21	2,36	2,51	2,66	2,81		

Index a: If component I is made of S320GD or S350GD the values may be increased by 8,0%. The values listed above in dependence on the screw in length l_{ef} are valid for $k_{mod}=0,90$ and $p_k=350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

Annex 44

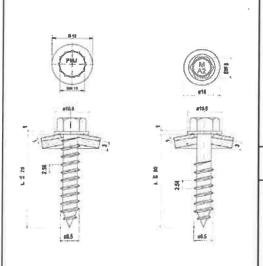
PMJ-tec 7642 with rounded flat head and sealing washer ≥ Ø19,0 mm

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English translation prepared by DIBt





<u>Materials</u>

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

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

Component I: S280GD to S320GD - EN 10346

S235 - EN 10025-1 Component II:

S280GD or S320GD - EN 10346

Pre drill diameter see table below

Timber substructures

 $M_{y,Rk} = 14,830 \text{ Nm}$

8,575 N/mm² for lef ≥ 26,0 mm $f_{ax,k} =$

												Co	mpone	ent	1							
											t II [m	_									T:-	-1
			0,6	3	0,75	5	0,88	3	1,0	0	1,1	3	1,2	5	1,5	00	2,0	0	3,0	0		nber 024
	d _{pd}			Ø.	4,0					Ø.	4,5						5,0		Ø5	,7		24 mm
N	/ _{t,nom}						3 Nr	n	,							5 N	lm_					
		0,63	1,30	-	1,50	-	1,80	-	2,00	ac	2,30	ac	2,50	ac	2,90	ac	2,90	ac	2,90	ac	2,90	70
	- 1	0,75	1,40	-	1,60	-	1,90	-	2,20	ac	2,50	ac	2,60	ac	3,10	ac	3,10	ac	3,10	ac	3,20	ailu
		0,88	1,50	-	1,70	-	2,00	-	2,30	-	2,60	-	2,80	ac	3,20	ac	3,20	ac	3,20	ac	3,40	Failure of component I
	VR.k [KN]	1,00	1,50	-	1,80	-	2,10	-	2,50	-	2,80	-	3,10	-	3,60	-	3,60	-	3,60	ac	3,50	9
	A,	1,25	1,60	-	1,90	-	2,30		2,70	-	3,00	-	3,30	-	4,00	-	4,00	~	4,00	ac	4,00	3
		1,50	1,60	-	1,90	-	2,40	-	2,80	-	3,20	-	3,50	-	4,00	-	4,30	-	4,30	ac	4,30	on
		1,75	1,60	-	1,90	-	2,40	-	2,80	-	3,20		3,50	-	4,00	-	4,30	-	4,30	-	4,30	ent
_		2,00	1,60	-	1,90	-	2,40	-	2,80		3,20	-	3,50	-	4,00	-	4,30	-	4,30	-	4,30	
Component I t I [mm]		0,50	0,90	-	1,20	-	1,40	-	1,50	-	1,64ª	-	1,64ª	-	1,64ª	-	1,64ª	-	1,64ª	-	1,64ª	
mponer t I [mm]		0,55	0,90	-	1,20	-	1,40	-	1,50		1,70	4	1,87ª	-	1,87ª	-	1,87ª	-	1,87ª	-	1,87ª	
E T		0,63	0,90	-	1,20	-	1,40	-	1,50	ac	1,70	ac	1,90	ac	2,20	ac	2,20	ac	2,20	ac	2,20	<u>a</u>
Ö		0,75	0,90	-	1,20	-	1,40	-	1,50	ac	1,70	ac	1,90	ac	2,30	ac	2,80	ac	2,80	ac	2,80	Failure of component I
	Z	0,88	0,90	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	ac	2,30	ac	3,50	ac	3,50	ac	3,50	약 0
	NR,k [KN]	1,00	0,90	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	ac	3,60	Ö
	Z.	1,25	1,00	-	1,20	-	1,40	-	1,50	-	1,70		1,90	-	2,30	-	3,60		3,60	ac	3,60	por
		1,50	1,00	-	1,20	-	1,40	-	1,50	-	1,70	ų.	1,90	-	2,30		3,60	-	3,60	ac	3,60	len:
		1,75	1,00	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-	3,60	=
		2,00	1,00	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-	3,60	
		N _{R,k,II}	1,00	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-	3,60	-		
		N _{R,k,II}	1,00	-	1,20	-	1,40	-	1,50	-	1,70	-	1,90	-	2,30	-	3,60	-		-		Failu

Index a: If component I is made of S320GD or S350GD the values may be increased by 8,0%. The values listed above in dependence on the screw in length I_{ef} are valid for $k_{mod} = 0.90$ and $p_k = 350 \text{ kg/m}^3$. For other combinations of k_{mcd} and timber densities see Annex 3.

Self-tapping screw

PMJ-tec 7653 with hexagon head and sealing washer ≥ Ø19,0 mm Annex 45

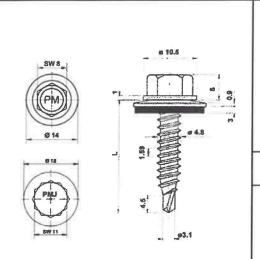
see Annex 3

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English translation prepared by DIBt





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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

										С	ompor	en	t II							
											t II [m	m]								
			0,40)	0,50)	0,5	5	0,63	3	0,75	5	0,88	3	1,0	0	1,1	3	1,2	5
		$M_{t,nom}$								Ξ	_									
		0,40	0,59	-	0,59	-	0,59	-	0,59	-	0,59	-	0,59	-	0,59	Ξ	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	-
	Z	0,63	0,59	-	0,59	-	0,71	-	0,90	-	0,90	-	1,50		2,10	ac	2,10	ac	2,10	ac
	V _{R,k} [kN]	0,75	0,59	-	0,59	-	0,71	-	0,90		0,90	-	1,50	7-1	2,10	ac	2,10	а	2,10	а
	> H	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	7-	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	
Component t I [mm]		1,25	0,59	-	0,59	-	0,71	-	0,90	-	0,90	-	1,90	-	2,80	-	2,80	-	2,80	
mponer t I [mm]		0,40	0,41.	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	-	1,46	_	1,46	
m ±		0,50	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,52	ac	1,65	ac
ŏ	- 1	0,55	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,55	ac	1,75	ac
	panny	0,63	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	ac	1,90	ac
	Z.	0,75	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,60	a	1,90	а
	Na,k [kN]	0,88	0,41	-	0,53	12	0,60	-	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-
	Ζ.	1,00	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-
	- 1	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	-
	- 14	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

PMJ-tec 7550 – 4,8 bimetal with hexagon head and sealing washer ≥ Ø14,0 mm

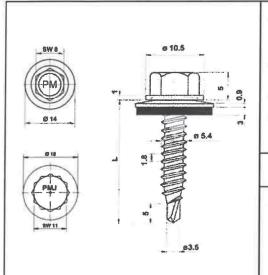
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English translation prepared by DIBt





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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

						C	omponen	t 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}					-				
		0,50	0,96ª -	0,96ª -	0,96ª -	0,96ª -	0,96ª -	0,96ª ac	0,96ª ac	0,96ª ac	0,96ª a
	-	0,55	0,96ª -	1,09 -	1,09 -	1,09 -	1,09 -	1,09 ac	1,09 ac	1,09 ac	1,09 a
	_	0,63	0,96ª -	1,09 -	1,30 -	1,50 -	1,50 -	1,50 ac	1,50 ac	1,50 ac	1,80 a
	Z	0,75	0,96ª -	1,09 -	1,30 -	1,50 -	1,50 -	1,50 -	1,50 -	1,50 -	1,80 -
	V _{R,k} [kN]	0,88	0,96ª -	1,09 -	1,30 -	1,50 -	1,90 -	2,30 -	2,30 -	2,40 -	2,40 -
	>	1,00	0,96ª -	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 -	
Component t I [mm]		1,25	0,96 -	1,09 -	1,30 -	1,50 -	2,30 -	3,00 -	3,10 -	3,20 -	
t [mm]		0,50	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,46 ac	1,46 ac	1,46 ac	1,46ª a
Ē	- 1	0,55	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 ac	1,71 ac	1,71 ac	1,71 a
Ö	1,3	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
	Z	0,75	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
	N _{R,k} [kN]	0,88	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
	Z.	1,00	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	2,30 -
		1,13	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	
	10	1,25	0,54ª -	0,57 -	0,70 -	1,00 -	1,30 -	1,60 -	1,90 -	2,20 -	
		N _{R,k,11}	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%.

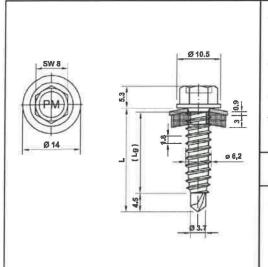
Self-drilling screw

PMJ-tec 7550 - 5.5bimetal with hexagon head and sealing washer $\geq \varnothing 14.0$ mm

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English translation prepared by DIBt





<u>Materials</u>

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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

						С	omponen	t II			
							t II [mm]				,
			0,50	0,55	0,63	0,75	0,88	1,00	1,13	1,25	2 x 0,75
		$M_{t,nom}$					-				11-52
		0,50	1,13ª -	1,13ª -	1,13 ^a -	1,13ª -	1,13ª -	1,13ª ac	1,13ª ac	1,13ª ac	1,13ª a
		0,55	1,13ª -	1,31 -	1,31 -	1,31 -	1,31 -	1,31 ac	1,31 ac	1,31 ac	1,31 a
	_	0,63	0,96ª -	1,60 -	1,60 -	1,60 -	1,60 -	1,60 ac	1,60 ac	1,60 ac	1,80 a
	V _{R,k} [kN]	0,75	0,96ª -	1,60 -	1,60 -	1,60 -	1,60 -	1,60 -	1,60 -	1,60 -	1,80 -
	폭	0,88	0,96ª -	1,60 -	1,60 -	1,60 -	1,90 -	2,30 -	2,30 -	2,40 -	2,40 -
	>	1,00	0,96ª -	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	
Component t I [mm]		1,25	0,96 -	1,60 -	1,60 -	1,60 -	2,30 -	3,00 -	3,10 -	3,20 - 1	
mponer t I [mm]		0,50	0,70ª -	0,74 -	0,88 -	1,00 -	1,30 -	1,46 ac	1,46 ac	1,46 ac	1,46ª a
E T		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
Ö	- 2	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
	Z	0,75	0,70ª -	0,74 -	0,88 -	1,00 -	1,30 -	1,60	1,90 -	2,20 -	2,60 -
	NR,k [KN]	0,88	0,70a -	0,74 -	0,88 -	1,00 -	1,30 -	1,60	1,90 -	2,20 -	2,60 -
	R.	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	0,70a -	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

PMJ-tec 7550 - 6,3
bimetal with hexagon head and sealing washer ≥ Ø14,0 mm

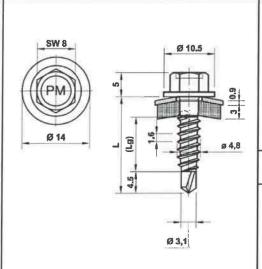
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English translation prepared by DIBt





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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

-

										C	ompor	nen	t II							
											t II [m	ım]								
			0,40)	0,5)	0,5	5	0,60	3	0,7		0,88	3	1,0	0	1,1	3	1,2	5
		M _{t,nom}			V III					I	-									
		0,40	0,59	-	0,59	_	0,59	-	0,59	-	0,59	-	0,59	-	0,59	-	0,59	-	0,59	-
	- 12	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	_
	Z	0,63	0,59		0,59	-	0,71	144	0,90	-	0,90	-	1,50	-	2,10	ac	2,10	ac	2,10	a
	V _{R,k} [kN]	0,75	0,59	-	0,59	-	0,71	-	0,90	-	0,90	-	1,50	-	2,10	ac	2,10	а	2,10	а
	X,	1,88	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	-1	2,80	-
		1,13	0,59	-	0,59	-	0,71	-	0,90	-	0,90	-	1,90	-	2,80	-	2,80	-	2,80	-
Component t1[mm]		1,25	0,59	-	0,59	-	0,71	-	0,90	-	0,90	-	1,90	-	2,80	-	2,80	-	2,80	-
mponel t I [mm]		0,40	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	-	1,46	-	1,46	Ξ
Ē		0,50	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,52	ac	1,65	a
Ŏ	8	0,55	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	ac	1,55	ac	1,75	a
		0,63	0,41	-	0,53	_	0,60	-	0,70		0,70	-	1,00	-	1,30	ac	1,60	ac	1,90	a
	N.	0,75	0,41	-	0,53	-	0,60	-	0,70		0,70	-	1,00	-	1,30	ac	1,60	а	1,90	а
	NR,k [kN]	1,88	0,41	-	0,53	-	0,60	-	0,70	-	0,70	-	1,00	-	1,30	-	1,60		1,90	-
	Z	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	
	17	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	-

Indicated characteristic values of longitudinal tension capacity are valid, if component II lies completely in the thread of the screw.

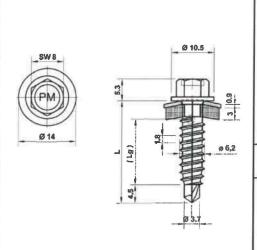
Self-drilling screw

PMJ-tec 7553 - 4.8 bimetal with hexagon head and sealing washer $\geq \varnothing 14.0$ mm

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English translation prepared by DIBt





Materials

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

organic coated

Washer: St

Stainless steel A2, A4, A5 - EN ISO 3506

Component I:

S280GD to S320GD - EN 10346

Component II: S235 - EN 10025-1

S280GD or S320GD - EN 10346

Drilling capacity:

 $\Sigma(t_i) \leq 2.50 \text{ mm}$

Timber substructures

-

						Compo	onent II			
						t II [mm]			
			0,50	0,55	0,63	0,75	0,88	1,00	1,13	1,25
		M _{t,nom}					-			
		0,50	1,03ª -	1,03ª -	1,03ª -	1,03ª -	1,03 ^a -	1,03 ^a -	1,03ª -	1,03ª -
		0,55	1,03ª -	1,19ª -	1,19ª -	1,19ª -	1,19ª -	1,19 ^a -	1,19ª -	1,19ª -
	-	0,63	1,03ª -	1,19ª -	1,44ª -	1,44 ^a -	1,44ª -	1,44 ^a -	1,44 ^a -	1,44ª -
	V _{R,k} [kN]	0,75	1,03ª -	1,19ª -	1,44ª -	1,84 ac	1,84 ac	1,84 ac	1,84 a	1,84 a
	ૂ	0,88	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,25 a	2,25 a	2,25 a
	>	1,00	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
-		1,13	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
Component t I [mm]		1,25	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
poner [mm]		0,50	0,70ª -	0,74 -	0,88 -	1,00 -	1,30 -	1,46 -	1,46 -	1,46 -
Ē I		0,55	0,70ª -	0,74 -	0,88 -	1,00 -	1,30 -	1,60 -	1,71 -	1,71 -
Ö	8	0,63	0,70ª -	0,74 -	0,88 -	1,00 -	1,30 -	1,60 -	1,90 -	2,10 -
	Z	0,75	0,70ª -	0,74 -	0,88 -	1,00 ac	1,30 ac	1,60 ac	1,90 a	2,20 a
	NR,k [kN]	0,88	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
	E	1,00	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
		1,13	0,70 ^a -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
		1,25	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
	,	N _{R,k,II}	0,70 -	0,74 -	0,88 -	1,00 -	1,30 -	1,60	1,90 -	2,20 -

Index a: For t_l and t_{ll} made of 320GD or S350GD values can be increased by 8,0%. Indicated characteristic values of longitudinal tension capacity are valid, if component II lies completely in the thread of the screw.

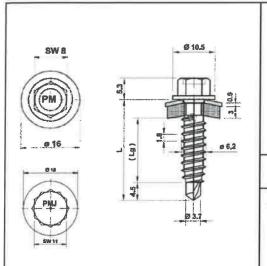
Self-drilling screw

PMJ-tec 7553 - 6.3 bimetal with hexagon head and sealing washer $\geq \varnothing 14.0$ mm

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English translation prepared by DIBt





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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

						Compo	onent II			
						t II [mm]			
			0,50	0,55	0,63	0,75	0,88	1,00	1,13	1,25
		$M_{t,nom}$					-			
		0,50	1,03 ^a -	1,03ª -	1,03ª -	1,03ª -	1,03ª -	1,03ª -	1,03ª -	1,03ª -
l		0,55	1,03ª -	1,19 ^a -	1,19ª -	1,19ª -	1,19 ^a -	1,19ª -	1,19ª -	1,19 ^a -
		0,63	1,03ª -	1,19ª -	1,44ª -	1,44 ^a -	1,44ª -	1,44 ^a -	1,44ª -	1,44ª -
	\leq	0,75	1,03ª -	1,19ª -	1,44ª -	1,84 ac	1,84 ac	1,84 ac	1,84 a	1,84 a
	V _{R,k} [kN]	0,88	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,25 a	2,25 a	2,25 a
	>	1,00	1,03ª -	1,19ª -	1,44 ^a -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
		1,13	1,03ª -	1,19ª -	1,44ª -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
Component t I [mm]		1,25	1,03ª -	1,19ª -	1,44 ^a -	1,84 a	2,25 a	2,66 a	2,66 a	2,66 a
poner [mm]		0,50	0,70 ^a -	0,74 -	0,88 -	1,00 -	1,30 -	1,60 -	1,82 -	1,82 -
E T		0,55	0,70 ^a -	0,74 -	0,88 -	1,00 -	1,30 -	1,60 -	1,88 -	1,88 -
Ö		0,63	0,70 ^a -	0,74 -	0,88 -	1,00 -	1,30 -	1,60 -	1,90 -	2,10 -
	Z	0,75	0,70ª -	0,74 -	0,88 -	1,00 ac	1,30 ac	1,60 ac	1,90 a	2,20 a
	NR.k [KN]	0,88	0,70 ^a -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
	Ę	1,00	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
		1,13	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
		1,25	0,70ª -	0,74 -	0,88 -	1,00 a	1,30 a	1,60 a	1,90 a	2,20 a
		N _{R,k,II}	0,70 -	0,74 -	0,88 -	1,00 -	1,30 -	1,60	1,90 -	2,20 -

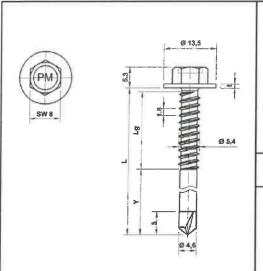
Index a: For t_l and t_{ll} made of 320GD or S350GD values can be increased by 8,0%. Indicated characteristic values of longitudinal tension capacity are valid, if component II lies completely in the thread of the screw.

Self-drilling screw

PMJ-tec 7553 - 6.3 bimetal with hexagon head and sealing washer $\geq \varnothing 16.0$ mm

English translation prepared by DIBt





<u>Materials</u>

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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

									Co	mp	onent l	I						
									1	: [[]	mm]							
			1,00)	1,2	5	1,50)	2,00)	3,00)	2 x 0,	75	2 x 0,	88	2 x 1	,00
		$M_{t,nom}$																
		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	19	1,80	-	-0	-	2,46	-	2,86	-	3,23	-
	Z	0,88	2,13	-8	2,13	-	2,13	-	2,13		-	-	2,46	-	2,86	2-	3,23	-
	V _{R,k} [kN]	1,00	2,43	-	2,43	-	2,43	-	2,43	-	-	-	2,46	-	2,86	-	3,23	-
	> A	1,13	2,43	-	2,97	-	2,97	_	3,75	-	-	-	2,46	н	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	-	-	-	-	-	-	8	-0	-	-	2,46	×	2,86	-	3,23	-
Component I t I [mm]		2,00	(2)	7	-	-	-	-	-	-	-	-	2,46	-	-	-	-	-
npone I [mm]		0,50	0,90	9	1,16	-	1,16	-	1,16	-	1,16	-	1,16	-	1,16	-	1,16	-
E ±		0,55	0,90	¥	1,30	-	1,35	-	1,35	,-	-	-	1,35	-	1,35	-	1,35	-
Ö		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	-
	NR,k [kN]	1,00	0,90	-	1,30	-	1,70	-	2,50	1-	*	-	1,70	-	1,90	-	2,00	-
	ᅑ	1,13	0,90	-	1,30	. •	1,70	-	2,50	-	-	-	1,70	-	1,90	-	2,00	-
1	2	1,25	0,90	_	1,30	2	1,70	-	2,50	-	-	-	1,70		1,90	-	2,00	-
	1	1,50	-	-	2	12	-	-	-	-	-	-	1,70	-	1,90	-	2,00	-
	1	1,75	-	2	-	-	-	-	-	-	*	-	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	-,

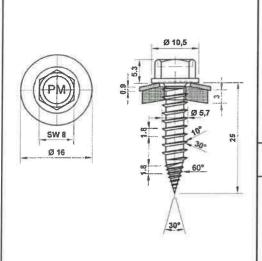
	200000	and the second of the	
Cal	اعلم ا	Illima	screw
Se	n-ar	IIIIIII	SCIEW

PMJ-tec 7510 - 5.5 bimetal with hexagon head and flange Ø 13.5 mm

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English translation prepared by DIBt





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 or S320GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.00 \text{ mm}$

Timber substructures

								_		_		_		_		
								С	ompor t II [m		i II					
			0,40)	0,50)	0,5	5	0,60	3	0,75	5	0,88	3	1,00)
		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	m
	Z	0,55	0,77	-	0,97	Ŀ	1,06	-	1,06	-	1,06		1,06	-	1,06	-
	V _{R,k} [kN]	0,63	0,77	-	0,97	-	1,06	-	1,21	-	1,21	-	1,21	-	1,21	-
	A,	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	-
Component t I [mm]		1,00	0,77	-	0,97	-	1,06	-	1,21	-	2,15	1-1	3,17	-	3,32	-0
poner [mm]		0,40	0,62		0,84	-	0,96	-	1,16	-	1,50	-	1,50	-	1,50	-
E =		0,50	0,62	-	0,84	-	0,96	-	1,16	-	1,52	j	1,89	-	1,89	-
ŭ		0,55	0,62	-	0,84	-	0,96	-	1,16	-	1,52	-	1,92	-	1,92	-
	X.	0,63	0,62	-	0,84	-	0,96	-	1,16	-	1,52	-	1,92		1,92	
	NR,k	0,75	0,62	-	0,84	-	0,96	-	1,16	-	1,52	-	1,92	-	1,92	-
	Ζ.	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	-
		$N_{R,k,H}$	0,62	-	0,84	-	0,96		1,16	-	1,52	-	1,92	-	1,92	-

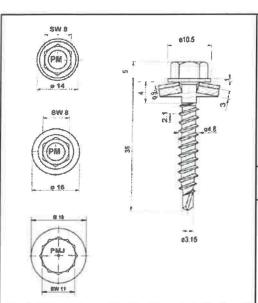
Self-drilling screw

PMJ-tec 7563 - 5.5bimetal with hexagon head and sealing washer $\geq \varnothing$ 16,0 mm

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English translation prepared by DIBt





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: $\Sigma(t_i) \le 2.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 6,947 \text{ Nm}$

 $f_{ax,k} = \quad 8,93 \text{ N/mm}^2 \qquad \text{ for } l_{ef} \geq 30,0 \text{ mm}$

			Comp	onent II
				nber C24
				nm (l _{eff} ≥ 30 nm)
		0,50	1,28	
46	7	0,55	1,44	Failure of component
83	콘	0,63	1,71	ng ail
7	VR,I.k [KN]	0,75	2,10	Failure of omponent
= 문	>	0,88	2,10	로 와
1 Si G		1,00	2,10	
0년 왕왕-트		0,50	1,68	
t to	_	0,55	1,90	8 77
ا ا	<u>×</u>	0,63	2,24	ng ail
0	NR,I,k [KN]	0,75	2,80	lre one
Component I S280 GD to S350 GD - 10346 t I [mm]	Z.	0,88	2,80	Failure of component I
		1,00	2,80	
V _{R,k,l}	ı; Na	,k,ll	see A	nnex 3

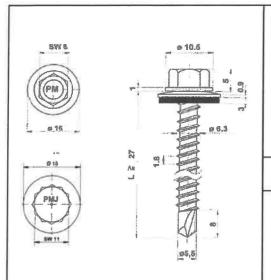
Self-drilling screw

PMJ-tec 7561 – 4,8 bimetal with sealing washer ≥ Ø 14,0 mm

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English translation prepared by DIBt





Materials

Fastener:

Stainless steel A2, A4, A5 - EN ISO 3506

Washer:

Stainless steel A2, A4, A5 - EN ISO 3506

Component I:

S280GD to S350GD - EN 10346

Component II: S235 - EN 10025-1

S280GD or S320GD - EN 10346

Drilling capacity:

 $\Sigma(t_i) \le 6.00 \text{ mm}$

Timber substructures

						С	ompoi t II [n		H			
			2,0	0	2,5	0	3,0	0	4,0	0	5,0	0
		$M_{t,nom}$					-					
		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	а
		0,63	1,51	ac	2,30	ac	2,60	ac	2,60	ac	2,60	а
		0,75	1,51	ac	2,80	ac	3,10	ac	3,10	ac	3,10	а
	Z	0,88	1,51	ac	3,40	ac	3,60	ac	3,60	ac	3,60	а
	V _{R.k} [kN]	1,00	1,51	ac	4,00	ac	4,10	ac	4,10	ac	4,10	а
	> =	1,13	1,51	ac	4,00	ac	4,50	а	4,80		-	-
		1,25	1,51	ac	4,00	ac	5,70	a	6,00		-	-
		1,50	1,51	ac	4,00	+1	5,70	-	6,00	-	-	-
l 		1,75	1,51	ac	4,00	-	5,70	-	6,00	-	1	-
Component t [mm]		2,00	1,51	ac	4,00	2	5,70	-	6,00	-	-	-
교트		0,50	1,52	ac	1,52	ac	1,52	ac	1,52	ac	1,52	ac
E =		0,55	1,81	ac	1,81	ac	1,81	ac	1,81	ac	1,81	а
Ö		0,63	2,22	ac	2,22	ac	2,22	ac	2,22	ac	2,22	а
		0,75	2,76	ac	2,92	ac	2,92	ac	2,92	ac	2,92	а
		0,88	2,76	ac	3,61	ac	3,61	ac	3,61	ac	3,61	а
	NR,k [kN]	1,00	2,76	ac	3,76	ac	4,31	ac	4,31	ac	4,31	a
	퐀	1,13	2,76	ac	3,76	ac	4,76	a	4,95	-	-	-
	2	1,25	2,76	ac	3,76	ac	4,76	а	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	7-	4,76	-	5,58	-	-	-
		$N_{R,k,II}$	2,76	-	3,76	-	4,76	-	5,58	-	5,58	-

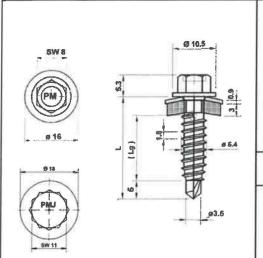
Self-drilling screw

PMJ-tec 7525 - 6.3bimetal with sealing washer $\geq \emptyset$ 16,0 mm

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English translation prepared by DIBt





Materials

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

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

Component I: S280GD to S350GD - EN 10346

Component II: S235 - EN 10025-1

S280GD or S350GD - EN 10346

Drilling capacity: $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

									Co	mp	onent l	1						
									1	111	mm]							
			0,50		0,55	5	0,63	3	0,7	5	0,88	3	1,00)	1,13	3	1,2	5
		M _{t,nom}									-							
	5 6	0,50	1,03	-	1,03	-	1,03	-	1,03	-	1,03		1,03	-	1,03	-	1,03	-
		0,55	1,03	-	1,19	-	1,19	-	1,19	-	1,19	-	1,19	-	1,19	-	1,19	-
	_	0,63	1,03	Ξ	1,19	-	1,45	н	1,45	-	1,45	-0	1,45	-	1,45	-	1,45	-
	圣	0,75	1,03	-	1,19	-	1,45	-	1,84	-	1,84	-	1,84	-	1,84	-	1,84	-
	V _{R,k} [kN]	1,88	1,03	-	1,19	-	1,45	-	1,84	-	2,27	-	2,27	-	2,27	-	2,27	-
_	>	1,00	1,03	-	1,19	-	1,45	-	1,84	-	2,27	-8	2,66	-	2,66	-	2,66	-
		1,13	1,03	-	1,19	-	1,45	-	1,84	-	2,27		2,66	-	2,66	-	2,66	-
Component t [[mm]		1,25	1,03	-	1,19	-	1,45	-	1,84	-	2,27	-	2,66	-	2,66	-	2,66	-
poner [mm]		0,50	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,82	-	1,82	-
E T		0,55	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,88	-	1,88	-
Ö		0,63	0,54a		0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90		2,10	
	Z	0,75	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-	2,20	-
	NR,k [kN]	1,88	0,54a	-	0,57	-	0,70		1,00	-	1,30	-	1,60	-	1,90		2,20	-
	z i	1,00	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	=	1,60	-	1,90	-	2,20	-
		1,13	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90		2,20	-
		1,25	0,54ª	-	0,57	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-	2,20	-
	-	$N_{R,k,ll}$	0,54	-	0,57	_	0,70		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%.

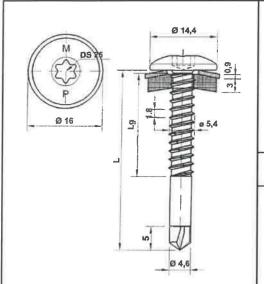
Self-drilling screw

PMJ-tec 7553 - 5.5bimetal with sealing washer $\geq \emptyset$ 16,0 mm

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English translation prepared by DIBt





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 Σ(t_i) ≤ 3.50 mm

Timber substructures

No performance determined

						С	ompoi t II [m		; II			
			1,0	0	1,2	5	1,5	0	2,0	0	3,0	0
		M _{t,nom}					-					
		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	-	-
	圣	0,88	2,30	-	2,60		2,90	ac	3,40	ac	_	-
	VR,k [KN]	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 [mm]		0,50	0,49	-	0,70	ac	0,92	ac	1,35	ac	1,57	ac
100 <u>F</u>		0,55	0,61	-	0,89	ac	1,16	ac	1,71	ac	1,98	ac
Ē ∓		0,63	0,90	-	1,30	ac	1,70	ac	2,50	ac	2,90	ac
Ö	Z	0,75	0,90	-	1,30	ac	1,70	ac	2,50	ac		-
	NR,k [KN]	0,88	0,90	-	1,30	-	1,70	ac	2,50	ac		-
	Z	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	-	-	-

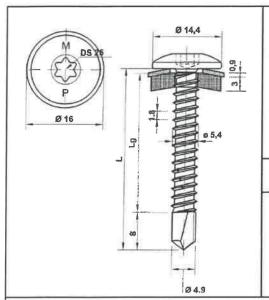
Self-drilling scre	ew
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PMJ-tec 7110-5,5 bimetal with rounded flat head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 6.00 \text{ mm}$

Timber substructures

No performance determined

						С	ompor t II [m		: II			
			2,5	0	3,0	0	4,0	0	5,0	0	6,00	5
		M _{t,nom}					5 N	m				
	_	0,50	1,40	ac	1,80	ac	1,80	ac	1,80	ac	1,80	а
	[KN]	0,55	1,80	ac	2,10	ac	2,10	ac	2,10	ac	2,10	а
-	VR,k	0,63	2,20	*	2,40	ac	2,40	ac	2,40	ac	2,40	a
Component t [mm]	>	0,75	2,90	-	2,90	-	2,90	ac	2,90	ac	2,90	а
poner [mm]		0,50	1,90	ac	1,90	ac	1,90	ac	1,90	ac	1,90	а
t Di	Z	0,55	2,30	ac	2,30	ac	2,30	ac	2,30	ac	2,30	a
Ö	Ne,k [kN]	0,63	2,80	-	2,80	ac	2,80	ac	2,80	ac	2,80	a
	E	0,75	3,00	-	3,80	-	3,80	ac	3,80	ac	3,80	a
	- 0	N _{B,k,II}	3,00	-	3,80	-	3,80	-	3,80	-	3,80	-

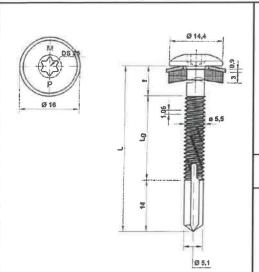
Se	f-dr	illing	screw
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PMJ-tec 7120-5,5 bimetal with rounded flat head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





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

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 12.50 \ mm$

Timber substructures

No performance determined

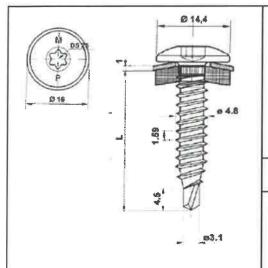
			Component II t II [mm]									
			6,0	00	8,0	00	10,0					
		M _{t,nom}		5 Nm								
		0,63	2,60	abcd	2,60	abcd	2,60	abcd				
		0,75	3,10	abcd	3,10	abcd	3,10	abcd				
		0,88	3,60	ac	3,60	ac	3,60	ac				
	Z	1,00	4,10	ac	4,10	ac	4,10	ac				
	V _{R,k} [kN]	1,13	4,60	ac	4,60	ac	4,60	ac				
	7	1,25	5,10	ac	5,10	ac	5,10	ac				
		1,50	6,00	-	6,00	-	6,00	-				
		1,75	6,00	-	6,00	-	6,00	-				
l		2,00	6,00	-	6,00	-	6,00	-				
Component t I [mm]		0,50	1,35	abcd	1,35	abcd	1,35	abcd				
log j <u>i</u>		0,55	1,71	abcd	1,71	abcd	1,71	abcd				
E ±		0,63	2,50	abcd	2,50	abcd	2,50	abcd				
Ŏ		0,75	2,90	abcd	2,90	abcd	2,90	abcd				
	_	0,88	3,70	ac	3,70	ac	3,70	ac				
	NR,k [KN]	1,00	4,50	ac	4,50	ac	4,50	ac				
	품	1,13	5,00	ac	5,00	ac	5,00	ac				
	Z ·	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	1	5,70	-				
	1/2	2,00	5,70	-	5,70	-	5,70					
		N _{B,k,II}	5,70	- 1	5,70	- 1	5,70	-				

Self-drilling screw	
PMJ-tec 7130-5,5 bimetal with rounded flat head and sealing washer ≥ Ø16 mm	Annex 59

Z78715.20 8.06.02-666/20

English translation prepared by DIBt





Materials

Fastener:

stainless steel (1.4301) - EN 10088

Washer:

stainless steel (1.4301) - EN 10088

Component I:

S280GD to S320GD - EN 10346

Component II: S

S235 - EN 10025-1

S280GD to S320GD - EN 10346

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

				Component II t II [mm]												
			0,63	3	0,7	5	0,88	0,88		1,00		1,13		5		
		M _{t,nom}		5 Nm												
		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		
	V _{R,k} [kN]	0,88	0,90	-	0,90	-	1,70	-	2,40	-	2,40	-	2,40	-		
	퐀	1,00	0,90	н	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	-		
Component t I [mm]		0,50	0,38	-	0,38	-	0,54		0,70	ac	0,86	ac	1,03	ac		
ompone t [[mm]		0,55	0,48	-	0,48	-	0,68		0,89	ac	1,09	ac	1,30	ac		
E T		0,63	0,70	-	0,70	-	1,00		1,30	ac	1,60	ac	1,90	ac		
ŭ	Z	0,75	0,70	-	0,70	-	1,00	- 1	1,30	ac	1,60	а	1,90	а		
	NR,k [KN]	0,88	0,70	-	0,70	-	1,00		1,30		1,60	-	1,90	-		
	Z	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 _{B,k,II}	0.70	-	0.70	-	1,00		1,30		1,60	-	1,90	-		

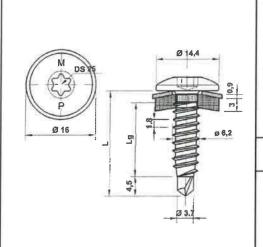
Self-drilling	screw
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PMJ-tec 7140-4,8 bimetal with rounded flat head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





<u>Materials</u>

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 $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

								С	ompor t II [m		: II						
			0,63	3	0,75	5	0,88	3	1,0	0	1,1	3	1,2	5	2x0,	75	
		M _{t,nom}			4 Nr	n					5 N	m				5 Nm	
	[K N]	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	152	1,60	-	1,80	-	
	ν _{R,k}	0,88	1,60	-	1,60	,-	1,90		2,30	-	2,30	-	2,40	Ξ	2,40	-	
<u>.</u> .	>	1,00	1,60	-	1,60	-	2,30		3,00	-	3,10	*	3,20	*	3,00	-	
Component I [mm]		0,50	0,43	-	0,54	-	0,70	-	0,86	-	1,03	ac	1,19	ac	1,30	ac	
lo i	8	0,55	0,55	-	0,68	-	0,89	-	1,09	-	1,30	ac	1,50	ac	1,64	ac	
E T	N N	0,63	0,80	-	1,00	-	1,30	-	1,60	-	1,90	ac	2,20	ac	2,40	ac	
ŏ	云	0,75	0,80	-	1,00	-	1,30	-	1,60	-	1,90		2,20		2,60	-	
	NH,k	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	-	
	9	Nakii	0.80		1.00		1.30		1.60	-	1.90	-	2.20	-	2.60	-	

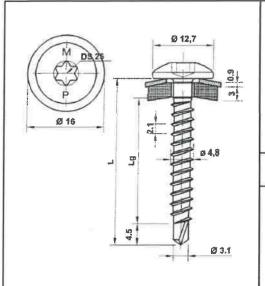
Self-drilling	screw
---------------	-------

PMJ-tec 7140-6,3 bimetal with rounded flat head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





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

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 2.00 \text{ mm}$

Timber substructures

 $M_{y,Rk} = 4,429 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$

for lef ≥ 30,0 mm

			Component II t II [mm]					
				-				
		$M_{t,nom}$	5 Nm					
	=	0,50	1,10	ac				
	VR,(k [kN]	0,55	1,30	ac				
<u>_</u>		0,63	1,60	ac				
Component I t1 [mm]		0,75	2,00	ac				
n I		0,50	1,80	ac				
S	Z.	0,55	2,10	ac				
	NR,I,k [KN]	0,63	2,50	ac				
	2	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 $p_k=350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

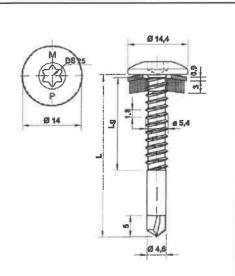
PMJ-tec 7160-4,8

bimetal with rounded flat head and sealing washer ≥ Ø16 mm

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 3.50 \text{ mm}$

Timber substructures

No performance determined

						С	ompoi n] II t		i II			
			1,0	0	1,25		1,50		2,0	0	3,0	0
		$M_{t,nom}$					-					
		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	-	-
Verfikni	Z.	0,88	1,94	-	2,19		2,44	ac	2,86	ac		-
	Ä,	1,00	2,11	-	2,36		2,69	4	3,12	-		-
	> /	1,13	2,27	-	2,53		2,86	21	3,45	-	-	-
l .		1,25	2,36	-	2,69		3,03	*	3,62		-	-
Component I t I [mm]		0,50	0,90	ac	1,22	ac	1,22	ac	1,22	ac	1,22	ac
등트		0,55	0,90	ac	1,30	ac	1,59	ac	1,59	ac	1,59	ac
E I	1.0	0,63	0,90	ac	1,30	ac	1,70	ac	2,17	ac	2,17	ac
Ö	Z	0,75	0,90	-	1,30	ac	1,70	ac	2,50	ac	X	-
	NR.k [KN]	0,88	0,90	-	1,30	-	1,70	ac	2,50	ac	-	-
	Z	1,00	0,90	-	1,30	-	1,70	-	2,50	-	-	-
		1,13	0,90	-	1,30	=	1,70	-	2,50	-	-	-
	10	1,25	0,90	-	1,30	-	1,70	_	2,50		-	-
	13	N _{R,k,II}	0,90	-	1,30	-	1,70	-	2,50	-	2,50	=

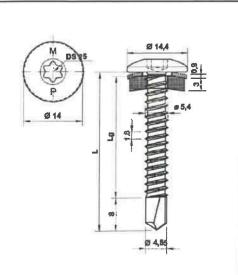
Annex 6

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English translation prepared by DIBt





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 $\Sigma(t_i) \le 6.00 \text{ mm}$

Timber substructures

No performance determined

				Component II t II [mm]										
			2,5	0	3,0	0	4,0	0	5,0	0				
		M _{t,nom}		5 Nm										
	_	0,50	1,40	ac	1,80	ac	1,80	ac	1,80	ac				
	V _{R,k} [kN]	0,55	1,80	ac	2,10	ac	2,10	ac	2,10	ac				
l 		0,63	2,20	-	2,40	ac	2,40	ac	2,40	ac				
in in		0,75	2,90		2,90	-	2,90	ac	2,90	ac				
Component l	8:	0,50	1,22	ac	1,22	ac	1,22	ac	1,22	ac				
E T	Z	0,55	1,59	ac	1,59	ac	1,59	ac	1,59	ac				
Ö	NR.k [KN]	0,63	2,17	-	2,17	ac	2,17	ac	2,17	ac				
	F	0,75	3,00	-	3,05	-	3,05	ac	3,05	ac				
		N _{R,k,II}	3,00	-	3,80	-	3,80	-	3,80	-				

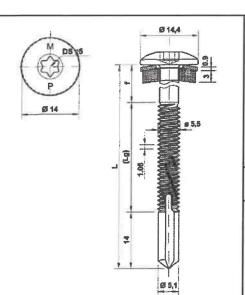
Self-drilling screw

PMJ-tec 7120-5,5 bimetal with rounded flat head and sealing washer ≥ Ø14 mm

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English translation prepared by DIBt





Materials

stainless steel (1.4301) - EN 10088

Fastener: Washer:

stainless steel (1.4301) - EN 10088

Component I:

S280GD to S320GD - EN 10346

Component II: S

S235 - EN 10025-1 S280GD to S320GD - EN 10346

 $\underline{Drilling\text{-capacity}} \quad \Sigma(t_i) \leq 12.50 \text{ mm}$

Timber substructures

No performance determined

				Component II t II [mm]										
			6,0	00	8,	00	10,0							
		$M_{t,nom}$		5 Nm										
		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						
	Z	1,00	3,87	ac	3,87	ac	3,87	ac						
	V _{R,k} [kN]	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	2	6,00	-	6,00	1						
Component t [[mm]		0,50	1,51	abcd	1,51	abcd	1,51	abcd						
l og lil		0,55	1,78	abcd	1,78	abcd	1,78	abcd						
E ±		0,63	2,23	abcd	2,23	abcd	2,23	abcd						
0		0,75	2,90	abcd	2,90	abcd	2,90	abcd						
	_		_ :		0,88	3,63	ac	3,63	ac	3,63	ac			
	NR,k [kN]	1,00	4,30	ac	4,30	ac	4,30	ac						
	Ä,	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	-						
	100	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	-						

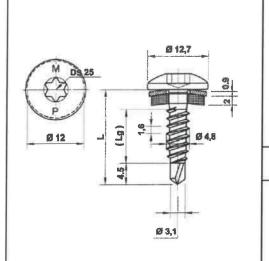
Self-drilling screw	
PMJ-tec 7130-5,5 with rounded flat head and sealing washer ≥ Ø14 mm	Annex 65

bimetal

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English translation prepared by DIBt





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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

			Component II t II [mm]												
			0,60	3	0,75	5	0,88	3	1,00)	1,13	3	1,2	5	
		M _{t,nom}	5 Nm												
		0,63	1,53	-	1,53	-	1,53	_	1,53	-	1,53	-	1,53	-	
	VR,k [kN]	0,75	1,53		1,94	-	1,94	-	1,94	-	1,94		1,94	-	
		0,88	1,53	+	1,94	-	2,39	-	2,39	-	2,39	-	2,39	-	
		1,00	1,53	•	1,94	-	2,39	-	2,80	-	2,80	-	2,80	-	
		1,13	1,53	•	1,94	-	2,39	-	2,80	-	2,80	-1	2,80	-	
		1,25	1,53		1,94	-	2,39	-	2,80	-	2,80	-	2,80	-	
n en	N _{R,k} [kN]	0,50	0,70		0,70	-	1,00	-	1,30	-	1,39		1,39	-	
pone [mm]		0,55	0,70		0,70	-	1,00	-	1,30	-	1,39	-	1,39	-	
Component t [[mm]		0,63	0,70	-	0,70	-	1,00	-	1,30	-	1,39	-	1,39	-	
		0,75	0,70	-	0,70	-	1,00	-	1,30	-	1,39	-	1,39	-	
		포	ᆇ	0,88	0,70	æ.	0,70	-	1,00	-	1,30	-	1,39	_	1,39
	Z	1,00	0,70	_	0,70	_	1,00	-	1,30	-	1,39	-	1,39	_	
		1,13	0,70	-	0,70	-	1,00	-	1,30	-	1,39		1,39	-	
		1,25	0,70	-	0,70	-	1,00	-	1,30	-	1,39	4	1,39	-	
		N _{R,k,II}	0,70	-	0,70	-	1,00	3	1,30	-	1,60	-	1,90		

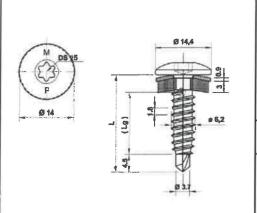
Self-drilling screw	
PMJ-tec 7140-4,8 bimetal with rounded flat head and sealing washer ≥ Ø12 mm	Annex 66

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English translation prepared by DIBt





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

<u>Drilling-capacity</u> $\Sigma(t_i) \le 2.50 \text{ mm}$

Timber substructures

No performance determined

			Component t [mm]											
			0,6	3	0,7	5	0,88	В	1,00)	1,13	3	1,2	5
	V _{R,k} [kN]	0,63	1,53	-	1,53	-	1,53	-	1,53	-	1,53	-	1,53	-
		0,75	1,53	-	1,94	-	1,94	-	1,94	-1	1,94	-	1,94	-
		0,88	1,53	-	1,94	-	2,39	*	2,39	-	2,39	-	2,39	-
	ᅑ	1,00	1,53	-	1,94	-	2,39	-	2,80	-	2,80	_	2,80	-
_	>	1,13	1,53	-	1,94	-	2,39	-	2,80	-	2,80	-	2,80	-
		1,25	1,53	-	1,94		2,39	-	2,80	-	2,80	-	2,80	-
		0,50	0,70	-	0,70		1,00	_	1,30	-	1,39	=	1,39	-
nponer I [mm] I	N _{R,k} [KN]	0,55	0,70	-	0,70		1,00	-	1,30	-	1,39	-	1,39	-
Component t [mm]		0,63	0,70	-	0,70	-02	1,00	-	1,30	-	1,39		1,39	-
		0,75	0,70	_	0,70		1,00		1,30	-	1,39	-	1,39	-
		0,88	0,70		0,70	-	1,00	-	1,30	-	1,39	-	1,39	-
	Ä,	1,00	0,70	-	0,70	3-8	1,00	-	1,30	-	1,39	-	1,39	
		1,13	0,70	-	0,70	-	1,00	-	1,30	-	1,39	-	1,39	-
		1,25	0,70	-	0,70	-	1,00	-	1,30	-	1,39	-	1,39	_
		N _{R,k,II}	0,70	-	0,70	-	1,00	-	1,30	-	1,60	-	1,90	-

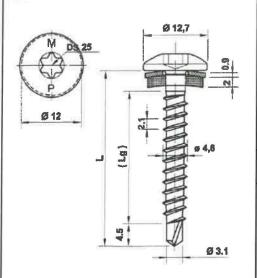
Self-drilling screw

PMJ-tec 7140-6,3 bimetal with rounded flat head and sealing washer ≥ Ø14 mm

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English translation prepared by DIBt





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 Σ(t_i) ≤ 2.00 mm

Timber substructures

 $M_{y,Rk} = 4,429 \text{ Nm}$

 $f_{ax,k} = 8,575 \text{ N/mm}^2$ for $l_{ef} \ge 30,0 \text{ mm}$

			Component II t II [mm]				
			-				
		$M_{t,nom}$	5 Nm				
	=	0,50	1,21	ac			
Component I t I [mm]	VR,I,K [KN]	0,55	1,25	ac			
		0,63	1,32	ac			
	>	0,75	1,43	ac			
		0,50	1,45	ac			
	NR,I,k [KN]	0,55	1,45	ac			
	H, T,	0,63	1,45	ac			
	2	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 $p_k=350$ kg/m³. For other combinations of k_{mod} and timber densities see Annex 3.

Self-drilling screw

PMJ-tec 7160-4,8 bimetal with rounded flat head and sealing washer ≥ Ø12 mm









PMJ-tec Technical Information

ETAs - European Technical Assessments - are a cornerstone of our commitment to proven quality and reliability. Available exclusively to European manufacturers, it demonstrates independently assessed standards and differentiates PMJ-tec as a fastener manufacturer from non-manufacturers who supply and distribute generic fasteners.

DIBt - Deutsches Institut für Bautechnik - are the approval body for construction products that controls and issues our ETAs.

The CE mark indicates that a fastener is consistent with the data provided in the relevant Declaration of Performance as issued by PMJ-tec AG.













Reliability



Verified





Warrantied

Approved



Headquarters and Manufacturing Centre

PMJ-tec AG

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