YTELSESERKLÆRING

Nr: DoP-170139 [NO]

Varetypens unike identifikasjonskode:

ESSVE ESSD (self-drilling) fastening screws
ESSVE ESST (self-tapping) fastening screws

Tilsiktet bruksområde:

ESSVE skrue ESSD / ESST tiltenkte bruk er festingen av stålplater mot stål- eller trekonstruksjoner. Platen kan enten være vegg- eller takplate eller en del av bærende vegg- eller takelementer. Skruen kan også bli benyttet for kobling av andre typer av tynne stålplater.

Den tiltenkte bruk refererer til både innendørs og utendørs bruk. For utendørs bruk med korrosjonsklasse ≥ C2 i samsvar med ISO 12944-2 nødvendige skrue i rustfritt stål.

Produsent:

ESSVE Produkter AB
BOX 7091
164 07 Kista
Sweden

info@essve.se

Europeisk bedømmelsesdokument:

EAD 330046-01-0602

Teknisk bedømmelsesorgan:

INSTYTUT TECHNIKI BUDOWLANEJ (ITB)

Europeisk teknisk bedømmelse:

ETA-17/0139 (2017-03-30)

Teknisk(e) kontrollorgan:

1488

System for vurdering og verifikasjon av byggevarers ytelser:

2+

Angitte ytelser:

I ETA-17/0139 er det som skal fastsettes som "komponent I" og konstruksjonene skal festes mot som "komponent II". "Komponent I" er alltid en stålplate og "komponent II" er enten en stål- eller trekonstruksjon, noe som er gitt av respektive Annex.

Fastener Diameter [mm]	Table number
3,5 & 4,2	Table 1
4,8	Table 2
5,5	Table 3
6,3	Table 4
6,5	Table 5

Table 1 – Declared performance of fastening screws with diameter 3,5 and 4,2 mm

ID code	Artikkelnummer	Diameter [mm]	Material/Coating	Max. drill capacity [mm]	Egenskap	Ytelse	Harmonisert produktstandard
ESSD (Pan head)	62300, 62301	3,5	EZP	2,0	$N_{R,k}$ $V_{R,k}$	Annex 1 (steel supporting structure)	ETA-17/0139
ESSD	62501, 62502	3,5	EZP	2,0	$N_{R,k}$ $V_{R,k}$	Annex 25 (steel supporting structure)	ETA-17/0139
ESSD (Pan head)	62304, 62305	4,2	EZP	2,0	$N_{R,k}$ $V_{R,k}$	Annex 2 (steel supporting structure)	ETA-17/0139
ESSD	62511, 62512, 62513, 62515, 513360	4,2	EZP	2,0	$N_{R,k}$ $V_{R,k}$	Annex 26 (steel supporting structure)	ETA-17/0139

Table 2 – Declared performance of fastening screws with diameter 4,8 mm

ID code	Artikkelnummer	Diameter [mm]	Material/Coating	Max. drill capacity [mm]	Egenskap	Ytelse	Harmonisert produktstandard
ESSD	62522, 62523, 62525, 62526	4,8	EZP	4,0	$N_{R,k}$ $V_{R,k}$	Annex 27 (steel supporting structure)	ETA-17/0139
ESSD-DECOR	63252, 63254, 63256, 63258, 63260, 63262, 63269, 63274, 63276, 63278, 63280, 63281, 63282, 63284	4,8	EZP	2,0	$N_{R,k}$ $V_{R,k}$	Annex 10 (timber supporting structure)	ETA-17/0139
ESSD-EPDM	63201, 63205, 63206, 63207, 63208, 63210, 63212, 63224, 63225, 63226, 63227, 63228, 63230, 63232, 63241, 63245, 64901, 64903, 64905, 64907, 64909, 64911, 64913, 64915, 64917, 64921, 64923, 64925, 64926, 64929, 64933, 64935, 64950, 64951, 64953, 64955, 64958, 64959, 64962, 64969, 64973, 64977, 64983, 64985, 513294, 513295, 513296, 10563226, 10563228, 10563232	4,8	EZP	3,5	$N_{R,k}$ $V_{R,k}$	Annex 5 (timber supporting structure) Annex 33 (steel supporting structure)	ETA-17/0139
ESSD-EPDM	63723, 63739	4,8	Stainless steel A2	1,5	$N_{R,k}$ $V_{R,k}$	Annex 8 (timber supporting structure)	ETA-17/0139
ESSD-EPDM	63725	4,8	Stainless steel A2	2,0	$N_{R,k}$ $V_{R,k}$	Annex 6 (timber supporting structure)	ETA-17/0139
ESSD-FH	63642	4,8	CorrSeal	5,0	$N_{R,k}$ $V_{R,k}$	Annex 11 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63420	4,8	EZP	3,0	$N_{R,k}$ $V_{R,k}$	Annex 18 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63920	4,8	CorrSeal	3,0	$N_{R,k}$ $V_{R,k}$	Annex 14 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63520, 10563420, 10563520	4,8	EZP	3,5	$N_{R,k}$ $V_{R,k}$	Annex 28 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63820	4,8	CorrSeal	3,5	$N_{R,k}$ $V_{R,k}$	Annex 29 (steel supporting structure)	ETA-17/0139
ESSD-OL	63440, 63445	4,8	EZP	2,5	$N_{R,k}$ $V_{R,k}$	Annex 22 (steel supporting structure)	ETA-17/0139
ESST-EPDM	64201, 64203, 64205, 64207, 64209, 64211, 64221, 64223, 64229, 64231, 64233, 64241, 64243, 64245, 64301, 64305, 64311, 64319, 64321, 64402, 64404, 64406, 64408, 64412, 64414, 64416, 64422, 64502, 64504, 64506, 64508, 64510, 64603, 64605, 513289, 513291, 513292, 513293, 513297, 513299	4,8	EZP	1,5	$N_{R,k}$ $V_{R,k}$	Annex 7 (timber supporting structure)	ETA-17/0139

Table 3 – Declared performance of fastening screws with diameter 5,5 mm

ID code	Artikkelnummer	Diameter [mm]	Material/Coating	Max. drill capacity [mm]	Egenskap	Ytelse	Harmonisert produktstandard
ESSD-FH	63644	5,5	CorrSeal	5,0	$N_{R,k}$ $V_{R,k}$	Annex 15 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63425, 63432, 63627, 63630, 63631	5,5	EZP	5,0	$N_{R,k}$ $V_{R,k}$	Annex 19 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63925, 63932, 63938, 63950	5,5	CorrSeal	5,0	$N_{R,k}$ $V_{R,k}$	Annex 12 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63632	5,5	EZP	12,0	$N_{R,k}$ $V_{R,k}$	Annex 21 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63640, 63646	5,5	CorrSeal	12,0	$N_{R,k}$ $V_{R,k}$	Annex 17 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63525, 63527, 63530, 63531, 10563425, 10563525	5,5	EZP	6,0	$N_{R,k}$ $V_{R,k}$	Annex 34 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63833	5,5	CorrSeal	6,0	$N_{R,k}$ $V_{R,k}$	Annex 30 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63526	5,5	EZP	10,0	$N_{R,k}$ $V_{R,k}$	Annex 36 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63524, 63532, 10563524	5,5	EZP	12,0	$N_{R,k}$ $V_{R,k}$	Annex 35 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63835	5,5	CorrSeal	12,0	$N_{R,k}$ $V_{R,k}$	Annex 32 (steel supporting structure)	ETA-17/0139
ESSD-OL	63451	5,5	EZP	2,5	$N_{R,k}$ $V_{R,k}$	Annex 23 (steel supporting structure)	ETA-17/0139

Table 4 – Declared performance of fastening screws with diameter 6,3 mm

ID code	Artikkelnummer	Diameter [mm]	Material/Coating	Max. drill capacity [mm]	Egenskap	Ytelse	Harmonisert produktstandard
ESSD-FH	63648, 63650	6,3	CorrSeal	5,0	$N_{R,k}$ $V_{R,k}$	Annex 16 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63628, 63629, 63633, 63636, 63637 63639	6,3	EZP	5,0	$N_{R,k}$ $V_{R,k}$	Annex 20 (steel supporting structure)	ETA-17/0139
ESSD-HQ	63928, 63939, 63951	6,3	CorrSeal	6,0	$N_{R,k}$ $V_{R,k}$	Annex 13 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63528	6,3	EZP	6,0	$N_{R,k}$ $V_{R,k}$	Annex 38 (steel supporting structure)	ETA-17/0139
ESSD-HQ-EPDM	63534, 63536, 63538, 63540	6,3	CorrSeal	16,0	$N_{R,k}$ $V_{R,k}$	Annex 31 (steel supporting structure)	ETA-17/0139
ESSD-OL	63442	6,3	EZP	2,5	$N_{R,k}$ $V_{R,k}$	Annex 24 (steel supporting structure)	ETA-17/0139

Table 5 – Declared performance of fastening screws with diameter 6,5 mm

ID code	Artikkelnummer	Diameter [mm]	Material/Coating	Max. drill capacity [mm]	Egenskap	Ytelse	Harmonisert produktstandard
ESST-EPDM	63036, 63037, 63038, 63039	6,5	EZP	2,5	$N_{R,k}$ $V_{R,k}$	Annex 3 (timber supporting structure)	ETA-17/0139
ESST-FH	63336, 63337, 63338, 63339	6,5	EZP	2,5	$N_{R,k}$ $V_{R,k}$	Annex 4 (timber supporting structure)	ETA-17/0139

Ytelser for denne byggevaren som er anført ovenfor, er i overensstemmelse med de angitte ytelsene. Denne ytelseserklæringen er utarbeidet i overensstemmelse med forordning (EU) nr. 305/2011 under produsentens eneansvar, som anført ovenfor.

Underskrevet for produsenten og på dennes vegne:

Kista 2021-01-13

Viktor Bukowski
Product Developer/Technical expert – Fasteners

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European Technical Assessment

ETA-17/0139 of 30/03/2017

General part

Technical Assessment Body issuing the European Technical Assessment	Instytut Techniki Budowlanej
Trade name of the construction product	ESSD and ESST
Product family to which the construction product belongs	Fastening screws for metal members and sheeting
Manufacturer	ESSVE PRODUKTER AB Esbogatan 14 SE-16474 Kista Sweden
Manufacturing plant	Manufacturing plant 406 and 528
This European Technical Assessment contains	45 pages including 40 Annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	European Assessment Document (EAD) EAD 330046-01-0602 "Fastening screws for metal members and sheeting"

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Specific Part

1. Technical description of the product

The fastening screws ESSD, ESST are a self-drilling and self-taping screws listed in Table 1. The fastening screws are supplied with a steel washer and an EPDM sealing ring. For details see Annexes 1 to 39.

The fastening screws and the corresponding connections are subject to tension and shear forces.

Table 1

No.	Screw	Material	Annex
1	ESSD 3,5xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	1
2	ESSD 4,2xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	2
3	ESST-EPDM 6,5xL EZP	galvanized carbon steel with ≥ 12 µm of zinc	3
4	ESST-FH 6,5xL EZP	galvanized carbon steel with ≥ 12 µm of zinc	4
5	ESSD-EPDM 4,8xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	5
6	ESSD-EPDM 4,8xL A2	stainless steel - A2	6
7	ESST-EPDM 4,8xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	7
8	ESSD-EPDM 4,8xL A2	stainless steel - A2	8
9	ESST-EPDM 4,8xL A2	stainless steel - A2	9
10	ESSD-DECOR 4,8xL	galvanized carbon steel with ≥ 10 µm of zinc	10
11	ESSD-FH 4,8xL CorrSeal	galvanized carbon steel with ceramic coating	11
12	ESSD-HQ 5,5xL CorrSeal/5	galvanized carbon steel with ceramic coating	12
13	ESSD-HQ 6,3xL CorrSeal	galvanized carbon steel with ceramic coating	13
14	ESSD-HQ 4,8xL CorrSeal	galvanized carbon steel with ceramic coating	14
15	ESSD-FH 5,5xL CorrSeal	galvanized carbon steel with ceramic coating	15
16	ESSD-FH 6,3xL CorrSeal	galvanized carbon steel with ceramic coating	16
17	ESSD-HQ 5,5xL CorrSeal/12	galvanized carbon steel with ceramic coating	17
18	ESSD-HQ 4,8xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	18
19	ESSD-HQ 5,5xL EZP/5	galvanized carbon steel with ≥ 10 µm of zinc	19
20	ESSD-HQ 6,3xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	20
21	ESSD-HQ 5,5xL EZP/12	galvanized carbon steel with ≥ 10 µm of zinc	21
22	ESSD-OL 4,8xL EZP	galvanized carbon steel with ≥ 12 µm of zinc	22
23	ESSD-OL 5,5xL EZP	galvanized carbon steel with ≥ 12 µm of zinc	23
24	ESSD-OL 6,3xL EZP	galvanized carbon steel with ≥ 12 µm of zinc	24
25	ESSD 3,5xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	25
26	ESSD 4,2xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	26
27	ESSD 4,8xL EZP	galvanized carbon steel with ≥ 5 µm of zinc	27
28	ESSD-HQ-EPDM 4,8xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	28
29	ESSD-HQ-EPDM 4,8xL CorrSeal	galvanized carbon steel with ceramic coating	29
30	ESSD-HQ-EPDM 5,5xL CorrSeal/5	galvanized carbon steel with ceramic coating	30
31	ESSD-HQ-EPDM 6,3xL CorrSeal/16	galvanized carbon steel with ceramic coating	31
32	ESSD-HQ-EPDM 5,5xL CorrSeal/12	galvanized carbon steel with ceramic coating	32
33	ESSD-EPDM 4,8xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	33
34	ESSD-HQ-EPDM 5,5xL EZP/5	galvanized carbon steel with ≥ 10 µm of zinc	34
35	ESSD-HQ-EPDM 5,5xL EZP/12	galvanized carbon steel with ≥ 10 µm of zinc	35
36	ESSD-HQ-EPDM 5,5xL EZP/10	galvanized carbon steel with ≥ 10 µm of zinc	36
37	ESSD-HQ-EPDM 5,5xL CorrSeal/10	galvanized carbon steel with ceramic coating	37
38	ESSD-HQ-EPDM 6,3xL EZP	galvanized carbon steel with ≥ 10 µm of zinc	38
39	ESSD-HQ-EPDM 6,3xL CorrSeal/6	galvanized carbon steel with ceramic coating	39

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

The fastening screws are intended to be used for fastening steel sheeting to steel or timber supporting substructures. For details see the Annexes 1 to 40. The component to be fastened is component I and the supporting structure is component II. 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 steel members.

The intended use comprises fastening screws and connections for indoor and outdoor applications. Fastening screws made of galvanized carbon steel and galvanized carbon steel with ceramic coating are intended to be used in internal environments with corrosion category class C1 in accordance with EN ISO 12944-2. Fastening screws made of stainless steel are intended to be used in external environments with corrosion category class ≥ C2 in accordance with EN ISO 12944-2.

Furthermore the intended use comprises connections with predominantly static loads (e.g. wind loads, dead loads).

The provisions made in this European Technical Assessment are based on an assumed working life of the fastening screws of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body, 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.

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

3.1. Performance of the product

3.1.1 Mechanical resistance and stability (BWR 1)

The characteristic values of the shear resistance of connections and tension resistance of connections with the fastening screws are given in Annex 1 to 39. The values were determined by tests according to EAD 330046-01-0602.

The design values shall be determined according to Annex 40 and EAD 330046-01-0602.

For the corrosion protection the rules given in EN 1993-1-3 and EN 1993-1-4 shall be taken into account. Fastening screws made of galvanized carbon steel and galvanized carbon steel with ceramic coating are intended to be used in internal environments with corrosion category class C1 in accordance with EN ISO 12944-2. Fastening screws which are made of stainless steel are intended to be used in external environments with corrosion category class ≥ C2 in accordance with EN ISO 12944-2.

3.1.2. Safety in case of fire (BWR 2)

The fastening screws are considered to satisfy the requirements of performance class A1 of reaction to fire, in accordance with the provisions of the EC Decision 96/603/EC (as amended) without the need for testing on the basis of its listing in that decision.

3.1.3. Hygiene, health and the environment (BWR 3)

Regarding dangerous substances there may be requirements (e.g. transposed European legislation and national laws, regulations and administrative provisions) applicable to the products falling within the scope of this European Technical Assessment. In order to meet the provisions of the Regulation (EU) No 305/2011, these requirements need also to be complied with, when and where they apply.

3.2. Methods used for the assessment

The assessment of fitness of the mechanical fasteners for the declared intended use has been made in accordance with the EAD 330046-01-0602.

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

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

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document (EAD)

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at the Instytut Techniki Budowlanej.

For type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

Issued in Warsaw on 30/03/2017 by Instytut Techniki Budowlanej

Marcin M. Kruk, PhD

Director of ITB

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

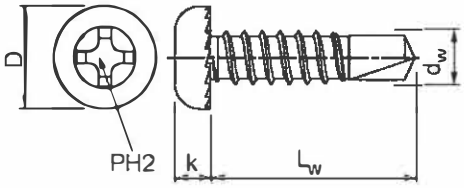
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}25$ mm

Timber substructures
no performance assessed



d_W = 3,5 mm
L_W = 9,5 and 13 mm
k = 3,0 mm
S = 6,3 mm
D = 8,0 mm

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{I,norm}$	2 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	0,60	0,60	0,60	0,60	0,60	0,60	—	—	—	—	—
0,55	0,60	0,60	0,60	0,60	0,60	0,60	—	—	—	—	—
0,63	0,60	0,60	0,81	0,81	0,81	0,81	—	—	—	—	—
0,75	0,60	0,60	0,81	1,13	1,13	1,13	—	—	—	—	—
0,88	0,60	0,60	0,81	1,13	1,33	1,33	—	—	—	—	—
1,00	0,60	0,60	0,81	1,13	1,33	1,48	—	—	—	—	—
1,13	—	—	—	—	—	—	—	—	—	—	—
1,25	—	—	—	—	—	—	—	—	—	—	—
1,50	—	—	—	—	—	—	—	—	—	—	—
1,75	—	—	—	—	—	—	—	—	—	—	—
2,00	—	—	—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	0,29	0,29	0,29	0,29	0,29	0,29	—	—	—	—	—
0,55	0,29	0,29	0,29	0,29	0,29	0,29	—	—	—	—	—
0,63	0,32	0,32	0,36	0,44	0,44	0,44	—	—	—	—	—
0,75	0,32	0,32	0,36	0,45	0,45	0,45	—	—	—	—	—
0,88	0,32	0,32	0,36	0,46	0,46	0,46	—	—	—	—	—
1,00	0,32	0,32	0,36	0,54	0,54	0,54	—	—	—	—	—
1,13	—	—	—	—	—	—	—	—	—	—	—
1,25	—	—	—	—	—	—	—	—	—	—	—
1,50	—	—	—	—	—	—	—	—	—	—	—
1,75	—	—	—	—	—	—	—	—	—	—	—
2,00	—	—	—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD 3,5xL EZP
self-drilling screws

Annex 1

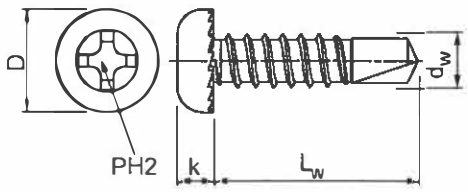
of European Technical Assessment ETA-17/0139

Materials

Fastener:	carbon steel – SAE1022 quenched, tempered and galvanized
Washer:	-
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}75$ mm

Timber substructures
no performance assessed



d_W = 4,2 mm
L_W = 13 – 25 mm
k = 3,5 mm
S = 6,3 mm
D = 8,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$		2 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,73	0,73	0,73	0,73	0,73	0,73	—	—	—	—	—
	0,55	0,73	0,73	0,73	0,73	0,73	0,73	—	—	—	—	—
	0,63	0,73	0,73	0,99	0,99	0,99	0,99	—	—	—	—	—
	0,75	0,73	0,73	0,99	1,37	1,37	1,37	—	—	—	—	—
	0,88	0,73	0,73	0,99	1,37	1,62	1,62	—	—	—	—	—
	1,00	0,73	0,73	0,99	1,37	1,62	1,81	—	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,32	0,32	0,36	0,36	0,36	0,36	—	—	—	—	—
	0,55	0,32	0,32	0,36	0,36	0,36	0,36	—	—	—	—	—
	0,63	0,32	0,32	0,51	0,54	0,54	0,54	—	—	—	—	—
	0,75	0,32	0,32	0,51	0,56	0,56	0,56	—	—	—	—	—
	0,88	0,32	0,32	0,51	0,57	0,57	0,57	—	—	—	—	—
	1,00	0,32	0,32	0,51	0,60	0,61	0,66	—	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD 4,2xL EZP
self-drilling screws

Annex 2

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

Washer: EPDM sealing ring with metal top
made of carbon steel ø14

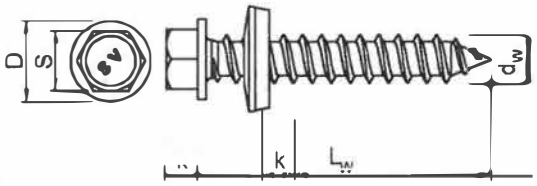
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 2{,}5$ mm

Timber substructures

For timber substructures performance assessed with
$M_{y,Rk} = 9{,}66$ Nm
$f_{ax,k} = 13{,}809$ N/mm² for $l_{ef} \geq 20$ mm



$d_W = 6{,}5$ mm
$L_W = 38 – 75$ mm
k = 5,0 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$	7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	2,03*	2,03*	*bearing resistance of component I
0,55	—	—	—	—	—	—	—	—	2,03*	2,03*	
0,63	—	—	—	—	—	—	—	—	2,03*	2,03*	
0,75	—	—	—	—	—	—	—	—	2,03*	2,03*	
0,88	—	—	—	—	—	—	—	—	2,03*	2,03*	
1,00	—	—	—	—	—	—	—	—	2,03*	2,03*	
1,13	—	—	—	—	—	—	—	—	2,03*	2,03*	
1,25	—	—	—	—	—	—	—	—	2,03*	2,03*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESST-EPDM 6,5xL EZP
self-tapping screws

Annex 3

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

Washer: -

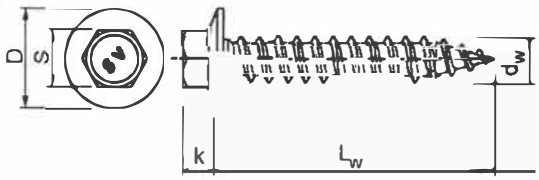
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 2{,}5$ mm

Timber substructures

For timber substructures performance assessed with
$M_{y,Rk} = 9{,}66$ Nm
$f_{ax,k} = 13{,}809$ N/mm² for $l_{ef} \geq 20$ mm



$d_w = 6{,}5$ mm
$L_w = 38 - 75$ mm
k = 6,0 mm
S = 8,0 mm
D = 14,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	2,03*	2,03*	*bearing resistance of component I
	0,55	—	—	—	—	—	—	—	—	2,03*	2,03*	
	0,63	—	—	—	—	—	—	—	—	2,03*	2,03*	
	0,75	—	—	—	—	—	—	—	—	2,03*	2,03*	
	0,88	—	—	—	—	—	—	—	—	2,03*	2,03*	
	1,00	—	—	—	—	—	—	—	—	2,03*	2,03*	
	1,13	—	—	—	—	—	—	—	—	2,03*	2,03*	
	1,25	—	—	—	—	—	—	—	—	2,03*	2,03*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
	0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
	0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
	0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
	0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
	1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESST-FH 6,5xL EZP
self-tapping screws

Annex 4

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

Washer: EPDM sealing ring with metal top
made of carbon steel ø14

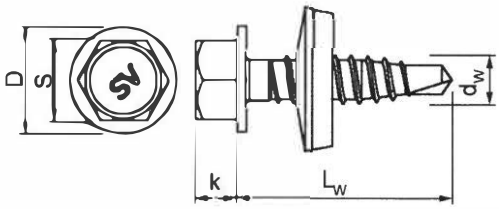
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 2{,}0$ mm

Timber substructures

For timber substructures performance assessed with
$M_{y,Rk} = 4{,}39$ Nm
$f_{ax,k} = 11{,}553$ N/mm² for $l_{ef} \geq 20$ mm



$d_W = 4{,}8$ mm
$L_W = 35 – 70$ mm
k = 4,5 mm
S = 8,0 mm
D = 10,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	1,12*	1,12*	*bearing resistance of component I
	0,55	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,63	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,75	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,88	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,00	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,13	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,25	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
	0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
	0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
	0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
	0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
	1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-EPDM 4,8xL EZP
self-drilling screws

Annex 5

of European Technical Assessment ETA-17/0139

Materials

Fastener: stainless steel - A2

Washer: EPDM sealing ring with metal top made of stainless steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081

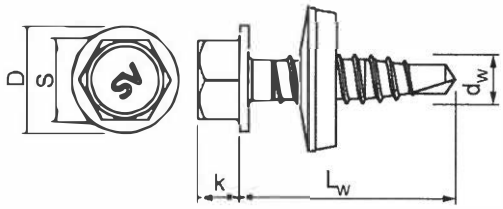
Drilling capacity: $\Sigma t_i \leq 2{,}0$ mm

Timber substructures

For timber substructures performance assessed with

$M_{y,Rk} = 3{,}37$ Nm

$f_{ax,k} = 11{,}710$ N/mm² for $l_{ef} \geq 20$ mm



$d_W = 4{,}8$ mm
$L_W = 20$ mm
k = 4,5 mm
S = 8,0 mm
D = 10,0 mm

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$	3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	1,05*	1,05*	*bearing resistance of component I
0,55	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,63	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,75	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,88	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,00	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,13	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,25	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-EPDM 4,8xL A2
self-drilling screws

Annex 6

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

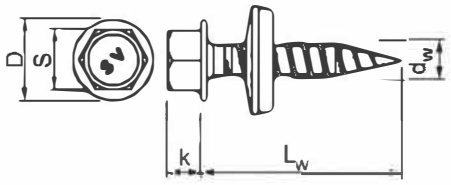
Washer: EPDM sealing ring with metal top
made of carbon steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 1{,}5$ mm

Timber substructures
For timber substructures performance assessed with
$M_{y,Rk} = 4{,}39$ Nm
$f_{ax,k} = 11{,}553$ N/mm² for $l_{ef} \geq 20$ mm



$d_w = 4{,}8$ mm
$L_w = 25 – 75$ mm
k = 4,5 mm
S = 8,0 mm
D = 5,0 mm

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$	3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	1,12*	1,12*	*bearing resistance of component I
0,55	—	—	—	—	—	—	—	—	1,12*	1,12*	
0,63	—	—	—	—	—	—	—	—	1,12*	1,12*	
0,75	—	—	—	—	—	—	—	—	1,12*	1,12*	
0,88	—	—	—	—	—	—	—	—	1,12*	1,12*	
1,00	—	—	—	—	—	—	—	—	1,12*	1,12*	
1,13	—	—	—	—	—	—	—	—	1,12*	1,12*	
1,25	—	—	—	—	—	—	—	—	1,12*	1,12*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESST-EPDM 4,8xL EZP
self-drilling screws

Annex 7

of European Technical Assessment ETA-17/0139

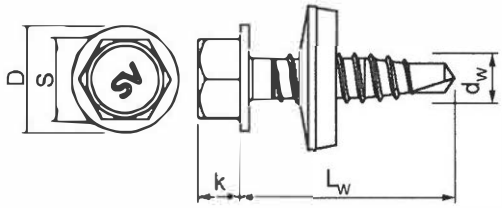
Materials

Fastener:	stainless steel - A2
Washer:	EPDM sealing ring with metal top made of stainless steel ø14
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 1{,}5$ mm

Timber substructures

For timber substructures performance assessed with
$M_{y,Rk} = 3{,}37$ Nm
$f_{ax,k} = 11{,}710$ N/mm^2 for $l_{ef} \geq 20$ mm



$d_W = 4{,}8$ mm
$L_W = 35$ mm
k = 4,5 mm
S = 8,0 mm
D = 10,0 mm

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$	3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											*bearing resistance of component I
0,50	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,55	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,63	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,75	—	—	—	—	—	—	—	—	1,05*	1,05*	
0,88	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,00	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,13	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,25	—	—	—	—	—	—	—	—	1,05*	1,05*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											*bearing resistance of component II
0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	
0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
1,50	—	—	—	—	—	—	—	—	—	—	
1,75	—	—	—	—	—	—	—	—	—	—	
2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-EPDM 4,8xL A2
self-drilling screws

Annex 8

of European Technical Assessment ETA-17/0139

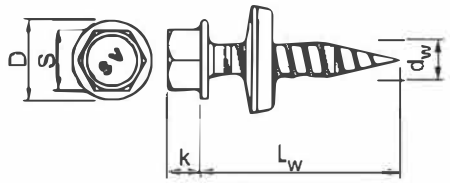
Materials

Fastener:	stainless steel - A2
Washer:	EPDM sealing ring with metal top made of stainless steel ø14
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	structural timber – EN 14081

Drilling capacity: $\Sigma t_i \leq 1{,}5$ mm

Timber substructures

For timber substructures performance assessed with
$M_{y,Rk} = 3{,}37$ Nm
$f_{ax,k} = 11{,}710$ N/mm² for $l_{ef} \geq 20$ mm



$d_w = 4{,}8$ mm
$L_w = 25$ mm
k = 4,5 mm
S = 8,0 mm
D = 10,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	1,05*	1,05*	*bearing resistance of component I
	0,55	—	—	—	—	—	—	—	—	1,05*	1,05*	
	0,63	—	—	—	—	—	—	—	—	1,05*	1,05*	
	0,75	—	—	—	—	—	—	—	—	1,05*	1,05*	
	0,88	—	—	—	—	—	—	—	—	1,05*	1,05*	
	1,00	—	—	—	—	—	—	—	—	1,05*	1,05*	
	1,13	—	—	—	—	—	—	—	—	1,05*	1,05*	
	1,25	—	—	—	—	—	—	—	—	1,05*	1,05*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	2,13*	2,13*	*bearing resistance of component II
	0,55	—	—	—	—	—	—	—	—	2,13*	2,13*	
	0,63	—	—	—	—	—	—	—	—	3,03*	3,03*	
	0,75	—	—	—	—	—	—	—	—	3,32*	3,32*	
	0,88	—	—	—	—	—	—	—	—	3,56*	3,56*	
	1,00	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,13	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,25	—	—	—	—	—	—	—	—	4,00*	4,00*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESST-EPDM 4,8xL A2
self-drilling screws

Annex 9

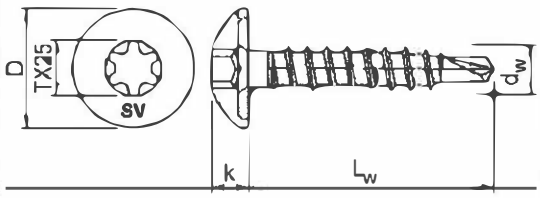
of European Technical Assessment ETA-17/0139

Materials
Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: structural timber – EN 14081



Drilling capacity: $\Sigma t_i \leq 2{,}0$ mm

Timber substructures
For timber substructures performance assessed with
$M_{y,Rk} = 4{,}39$ Nm
$f_{ax,k} = 11{,}553$ N/mm² for $l_{ef} \geq 20$ mm

$d_W = 4{,}8$ mm
$L_W = 35$ mm
k = 4,0 mm
D = 14,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	1,12*	1,12*	*bearing resistance of component I
	0,55	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,63	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,75	—	—	—	—	—	—	—	—	1,12*	1,12*	
	0,88	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,00	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,13	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,25	—	—	—	—	—	—	—	—	1,12*	1,12*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	—	—	—	—	—	—	—	—	0,53*	0,53*	*bearing resistance of component II
	0,55	—	—	—	—	—	—	—	—	0,53*	0,53*	
	0,63	—	—	—	—	—	—	—	—	0,80*	0,80*	
	0,75	—	—	—	—	—	—	—	—	0,85*	0,85*	
	0,88	—	—	—	—	—	—	—	—	0,98*	0,98*	
	1,00	—	—	—	—	—	—	—	—	1,26*	1,26*	
	1,13	—	—	—	—	—	—	—	—	1,26*	1,26*	
	1,25	—	—	—	—	—	—	—	—	1,26*	1,26*	
	1,50	—	—	—	—	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-DECOR 4,8xL
self-drilling screws

Annex 10

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

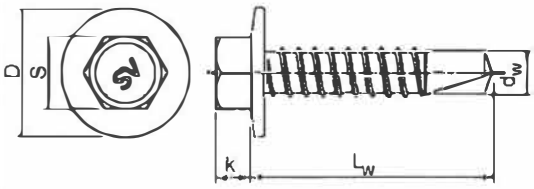
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no performance assessed



d_W = 4,8 mm
L_W = 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,0 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	1,05	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	1,05	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	1,41	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	1,96	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	2,31	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	2,58	—	—	—	—	—	—
	1,13	2,58	2,58	2,58	2,58	2,58	—	—	—	—	—	—
	1,25	2,70	2,70	2,70	2,70	2,70	—	—	—	—	—	—
	1,50	2,70	2,70	2,70	2,70	2,70	—	—	—	—	—	—
	1,75	2,70	2,70	2,70	2,70	2,70	—	—	—	—	—	—
	2,00	2,70	2,70	2,70	2,70	2,70	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	0,80	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	0,85	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	0,98	—	—	—	—	—	—
	1,00	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—
	1,13	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—
	1,25	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—
	1,50	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—
	1,75	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—
	2,00	1,09	1,26	1,26	1,26	1,26	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-FH 4,8xL CorrSeal
self-drilling screws

Annex 11

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

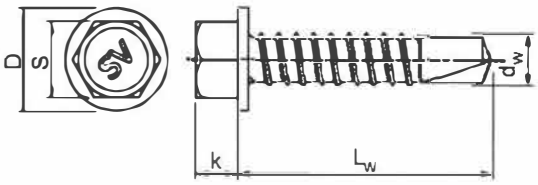
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no performance assessed



d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,55	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,63	1,59	1,59	1,59	—	—	—	—	—	—	—	—
	0,75	2,01	2,01	2,01	—	—	—	—	—	—	—	—
	0,88	2,17	2,17	2,17	—	—	—	—	—	—	—	—
	1,00	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,13	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,25	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,50	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,75	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	2,00	3,63	3,63	3,63	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,13	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,25	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,50	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,75	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	2,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 5,5xL CorrSeal/5
self-drilling screws

Annex 12

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

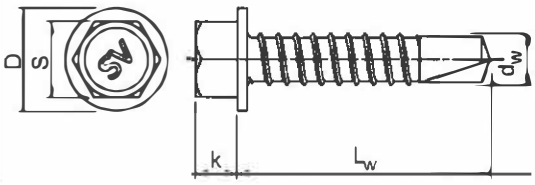
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 6{,}00$ mm

Timber substructures
no performance assessed



d_W = 6,3 mm
L_W = 25 – 100 mm
k = 6,0 mm
S = 8,0 mm
D = 13,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,55	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,63	2,14	2,14	—	—	—	—	—	—	—	—	—
	0,75	2,51	2,51	—	—	—	—	—	—	—	—	—
	0,88	2,71	2,71	—	—	—	—	—	—	—	—	—
	1,00	3,08	3,08	—	—	—	—	—	—	—	—	—
	1,13	3,08	3,08	—	—	—	—	—	—	—	—	—
	1,25	4,02	4,02	—	—	—	—	—	—	—	—	—
	1,50	4,02	4,02	—	—	—	—	—	—	—	—	—
	1,75	4,02	4,02	—	—	—	—	—	—	—	—	—
	2,00	4,02	4,02	—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	—	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	—	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	—	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,13	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,25	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,50	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,75	1,26	1,26	—	—	—	—	—	—	—	—	—
	2,00	1,26	1,26	—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 6,3xL CorrSeal
self-drilling screws

Annex 13

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022 quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

Washer: -

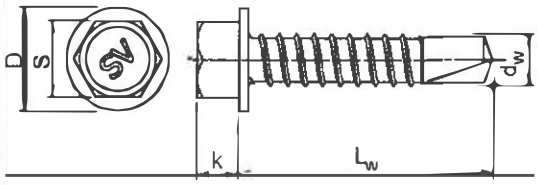
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 3{,}00$ mm

Timber substructures

no performance assessed



d_w = 4,8 mm
L_w = 13 and 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

	$t_{N,II}$ [mm]	1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
	$M_{t,nom}$	3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58	2,58		—	—	—	—	—	—	—
	1,25	2,70	2,70	2,70		—	—	—	—	—	—	—
	1,50	2,70	2,70	2,70		—	—	—	—	—	—	—
	1,75	2,70	2,70			—	—	—	—	—	—	—
	2,00	2,70				—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	—	—	—	—	—	—	—
	1,00	1,09	1,26	1,26	1,26	—	—	—	—	—	—	—
	1,13	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,25	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,50	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,75	1,09	1,26			—	—	—	—	—	—	—
	2,00	1,09				—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 4,8xL CorrSeal
self-drilling screws

Annex 14

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

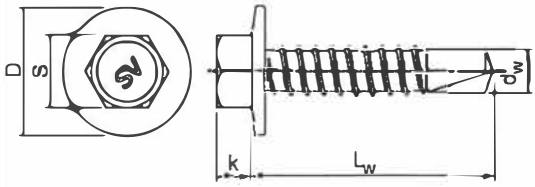
Washe r: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no performance assessed



d_W = 5,5 mm
L_W = 25 – 38 mm
k = 5,5 mm
S = 8,0 mm
D = 14,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,55	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,63	1,59	1,59	1,59	—	—	—	—	—	—	—	—
	0,75	2,01	2,01	2,01	—	—	—	—	—	—	—	—
	0,88	2,17	2,17	2,17	—	—	—	—	—	—	—	—
	1,00	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,13	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,25	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,50	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,75	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	2,00	3,63	3,63	3,63	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,13	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,25	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,50	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,75	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	2,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-FH 5,5xL CorrSeal
self-drilling screws

Annex 15

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

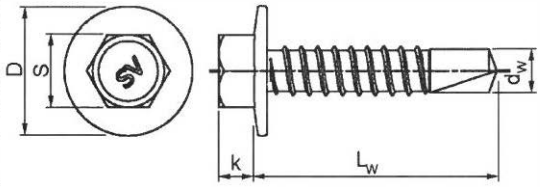
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no performance assessed



d_W = 6,3 mm
L_W = 25 and 32 mm
k = 6,5 mm
S = 10,0 mm
D = 14,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,55	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,63	2,14	2,14	—	—	—	—	—	—	—	—	—
	0,75	2,51	2,51	—	—	—	—	—	—	—	—	—
	0,88	2,71	2,71	—	—	—	—	—	—	—	—	—
	1,00	3,08	3,08	—	—	—	—	—	—	—	—	—
	1,13	3,08		—	—	—	—	—	—	—	—	—
	1,25	4,02		—	—	—	—	—	—	—	—	—
	1,50	4,02		—	—	—	—	—	—	—	—	—
	1,75	4,02		—	—	—	—	—	—	—	—	—
	2,00	4,02		—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	—	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	—	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	—	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,13	1,26		—	—	—	—	—	—	—	—	—
	1,25	1,26		—	—	—	—	—	—	—	—	—
	1,50	1,26		—	—	—	—	—	—	—	—	—
	1,75	1,26		—	—	—	—	—	—	—	—	—
	2,00	1,26		—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-FH 6,3xL CorrSeal
self-drilling screws

Annex 16

of European Technical Assessment ETA-17/0139

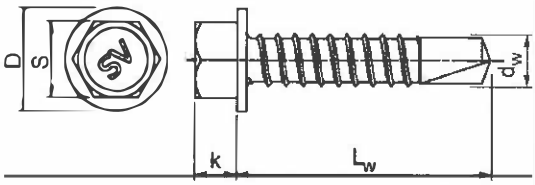
Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346



Drilling capacity: $\Sigma t_i \leq 12{,}00$ mm

Timber substructures
no performance assessed

d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	0,80	0,80	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	0,85	0,85	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	0,98	0,98	—	—	—	—	—
	1,00	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,13	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,25	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,50	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,75	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	2,00	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 5,5xL CorrSeal/12
self-drilling screws

Annex 17

of European Technical Assessment ETA-17/0139

Materials
Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

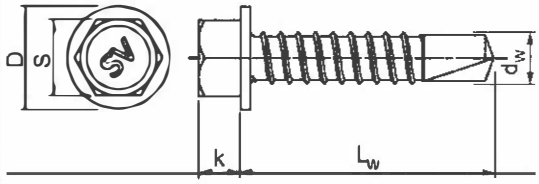
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 3{,}00$ mm

Timber substructures
no performance assessed



d_W = 4,8 mm
L_W = 23 and 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58	2,58		—	—	—	—	—	—	—
	1,25	2,70	2,70	2,70		—	—	—	—	—	—	—
	1,50	2,70	2,70	2,70		—	—	—	—	—	—	—
	1,75	2,70	2,70			—	—	—	—	—	—	—
	2,00	2,70				—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	—	—	—	—	—	—	—
	1,00	1,09	1,26	1,26	1,26	—	—	—	—	—	—	—
	1,13	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,25	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,50	1,09	1,26	1,26		—	—	—	—	—	—	—
	1,75	1,09	1,26			—	—	—	—	—	—	—
	2,00	1,09				—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 4,8xL EZP
self-drilling screws

Annex 18

of European Technical Assessment ETA-17/0139

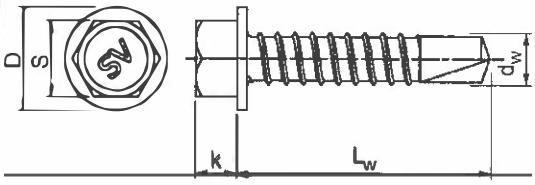
Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346



Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no perfomance assessed

d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,55	1,28	1,28	1,28	—	—	—	—	—	—	—	—
	0,63	1,59	1,59	1,59	—	—	—	—	—	—	—	—
	0,75	2,01	2,01	2,01	—	—	—	—	—	—	—	—
	0,88	2,17	2,17	2,17	—	—	—	—	—	—	—	—
	1,00	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,13	2,37	2,37	2,37	—	—	—	—	—	—	—	—
	1,25	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,50	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	1,75	3,63	3,63	3,63	—	—	—	—	—	—	—	—
	2,00	3,63	3,63	3,63	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,13	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,25	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,50	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	1,75	1,26	1,26	1,26	—	—	—	—	—	—	—	—
	2,00	1,26	1,26	1,26	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 5,5xL EZP/5
self-drilling screws

Annex 19

of European Technical Assessment ETA-17/0139

Materials
Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

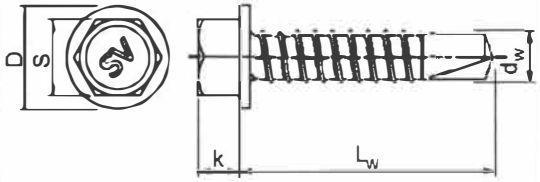
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 5{,}00$ mm

Timber substructures
no performance assessed



d_W = 6,3 mm
L_W = 25 – 100 mm
k = 6,0 mm
S = 8,0 mm
D = 13,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,55	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,63	2,14	2,14	—	—	—	—	—	—	—	—	—
	0,75	2,51	2,51	—	—	—	—	—	—	—	—	—
	0,88	2,71	2,71	—	—	—	—	—	—	—	—	—
	1,00	3,08	3,08	—	—	—	—	—	—	—	—	—
	1,13	3,08		—	—	—	—	—	—	—	—	—
	1,25	4,02		—	—	—	—	—	—	—	—	—
	1,50	4,02		—	—	—	—	—	—	—	—	—
	1,75	4,02		—	—	—	—	—	—	—	—	—
	2,00	4,02		—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,55	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,63	0,80	0,80	—	—	—	—	—	—	—	—	—
	0,75	0,85	0,85	—	—	—	—	—	—	—	—	—
	0,88	0,98	0,98	—	—	—	—	—	—	—	—	—
	1,00	1,26	1,26	—	—	—	—	—	—	—	—	—
	1,13	1,26		—	—	—	—	—	—	—	—	—
	1,25	1,26		—	—	—	—	—	—	—	—	—
	1,50	1,26		—	—	—	—	—	—	—	—	—
	1,75	1,26		—	—	—	—	—	—	—	—	—
	2,00	1,26		—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 6,3xL EZP
self-drilling screws

Annex 20

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

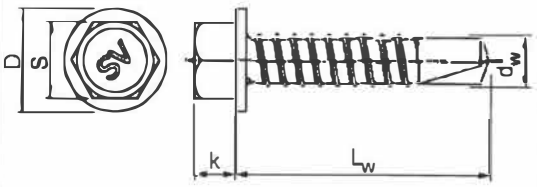
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 12{,}00$ mm

Timber substructures
no performance assessed



d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,mom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	0,53	0,53	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	0,80	0,80	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	0,85	0,85	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	0,98	0,98	—	—	—	—	—
	1,00	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,13	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,25	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,50	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	1,75	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—
	2,00	1,26	1,26	1,26	1,26	1,26	1,26	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ 5,5xL EZP/12
self-drilling screws

Annex 21

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

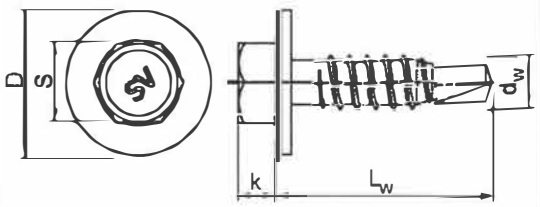
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}50$ mm

Timber substructures
no performance assessed



d_W = 4,8 mm
L_W = 16 and 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58			—	—	—	—	—	—	—
	1,25	2,70	2,70			—	—	—	—	—	—	—
	1,50					—	—	—	—	—	—	—
	1,75					—	—	—	—	—	—	—
	2,00					—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	—	—	—	—	—	—	—
	1,00	1,09	1,26	1,26	1,26	—	—	—	—	—	—	—
	1,13	1,09	1,26			—	—	—	—	—	—	—
	1,25	1,09	1,26			—	—	—	—	—	—	—
	1,50					—	—	—	—	—	—	—
	1,75					—	—	—	—	—	—	—
	2,00					—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-OL 4,8xL EZP
self-drilling screws

Annex 22

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

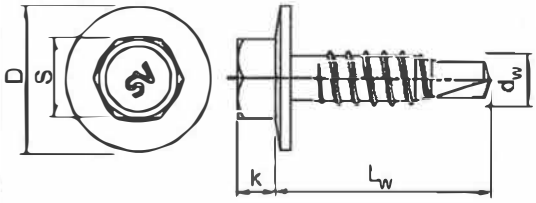
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}50$ mm

Timber substructures
no performance assessed



d_w = 5,5 mm
L_w = 20 mm
k = 4,5 mm
S = 8,0 mm
D = 14 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	—	—	—	—	—	—	—	—	—
	0,55	1,28		—	—	—	—	—	—	—	—	—
	0,63	1,59		—	—	—	—	—	—	—	—	—
	0,75	2,01		—	—	—	—	—	—	—	—	—
	0,88	2,17		—	—	—	—	—	—	—	—	—
	1,00	2,37		—	—	—	—	—	—	—	—	—
	1,13			—	—	—	—	—	—	—	—	—
	1,25			—	—	—	—	—	—	—	—	—
	1,50			—	—	—	—	—	—	—	—	—
	1,75			—	—	—	—	—	—	—	—	—
	2,00			—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,55	0,53		—	—	—	—	—	—	—	—	—
	0,63	0,80		—	—	—	—	—	—	—	—	—
	0,75	0,85		—	—	—	—	—	—	—	—	—
	0,88	0,98		—	—	—	—	—	—	—	—	—
	1,00	1,26		—	—	—	—	—	—	—	—	—
	1,13			—	—	—	—	—	—	—	—	—
	1,25			—	—	—	—	—	—	—	—	—
	1,50			—	—	—	—	—	—	—	—	—
	1,75			—	—	—	—	—	—	—	—	—
	2,00			—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-OL 5,5xL EZP
self-drilling screws

Annex 23

of European Technical Assessment ETA-17/0139

Materials

Fas tener: carbon steel – SAE1022
quenched, tempered and galvanized

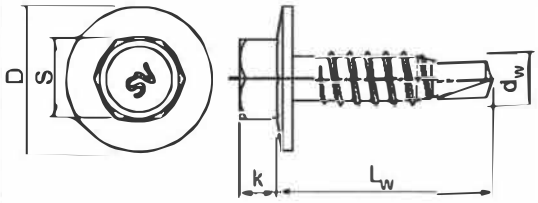
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capa city: $\Sigma t_I \leq 2{,}50$ mm

Timber substructures
no performance assessed



d_W = 6,3 mm
L_W = 22 mm
k = 6,5 mm
S = 8,0 mm
D = 15,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	—	—	—	—	—	—	—	—	—
	0,55	1,41		—	—	—	—	—	—	—	—	—
	0,63	2,14		—	—	—	—	—	—	—	—	—
	0,75	2,51		—	—	—	—	—	—	—	—	—
	0,88	2,71		—	—	—	—	—	—	—	—	—
	1,00	3,08		—	—	—	—	—	—	—	—	—
	1,13			—	—	—	—	—	—	—	—	—
	1,25			—	—	—	—	—	—	—	—	—
	1,50			—	—	—	—	—	—	—	—	—
	1,75			—	—	—	—	—	—	—	—	—
	2,00			—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	—	—	—	—	—	—	—	—	—
	0,55	0,53		—	—	—	—	—	—	—	—	—
	0,63	0,80		—	—	—	—	—	—	—	—	—
	0,75	0,85		—	—	—	—	—	—	—	—	—
	0,88	0,98		—	—	—	—	—	—	—	—	—
	1,00	1,26		—	—	—	—	—	—	—	—	—
	1,13			—	—	—	—	—	—	—	—	—
	1,25			—	—	—	—	—	—	—	—	—
	1,50			—	—	—	—	—	—	—	—	—
	1,75			—	—	—	—	—	—	—	—	—
	2,00			—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-OL 6,3xL EZP
self-drilling screws

Annex 24

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

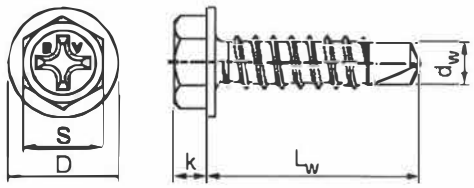
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}25$ mm

Timber substructures
no performance assessed



d_w = 3,5 mm
L_w = 9,5 mm
k = 2,5 mm
D = 6,5 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24	
$M_{t,nom}$		2 Nm								20 mm	30 mm
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,60	0,60	0,60	0,60	0,60	0,60	—	—	—	—
	0,55	0,60	0,60	0,60	0,60	0,60	0,60	—	—	—	—
	0,63	0,60	0,60	0,81	0,81	0,81	0,81	—	—	—	—
	0,75	0,60	0,60	0,81	1,13	1,13	1,13	—	—	—	—
	0,88	0,60	0,60	0,81	1,13	1,33	1,33	—	—	—	—
	1,00	0,60	0,60	0,81	1,13	1,33	1,48	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,29	0,29	0,29	0,29	0,29	0,29	—	—	—	—
	0,55	0,29	0,29	0,29	0,29	0,29	0,29	—	—	—	—
	0,63	0,32	0,32	0,36	0,44	0,44	0,44	—	—	—	—
	0,75	0,32	0,32	0,36	0,45	0,45	0,45	—	—	—	—
	0,88	0,32	0,32	0,36	0,46	0,46	0,46	—	—	—	—
	1,00	0,32	0,32	0,36	0,54	0,54	0,54	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD 3,5xL EZP
self-drilling screws

Annex 25

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

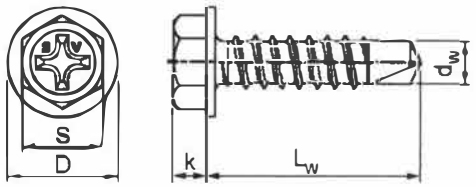
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 2{,}75$ mm

Timber substructures
no performance assess ed



d_W = 4,2 mm
L_W = 13 – 19 mm
k = 3,0 mm
D = 8,0 mm

$t_{N,II}$ [mm]		0,50	0,55	0,63	0,75	0,88	1,00	1,25	1,50	Wood class ≥ C24	
$M_{t,nom}$		3 Nm								20 mm	30 mm
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,73	0,73	0,73	0,73	0,73	0,73	—	—	—	—
	0,55	0,73	0,73	0,73	0,73	0,73	0,73	—	—	—	—
	0,63	0,73	0,73	0,99	0,99	0,99	0,99	—	—	—	—
	0,75	0,73	0,73	0,99	1,37	1,37	1,37	—	—	—	—
	0,88	0,73	0,73	0,99	1,37	1,62	1,62	—	—	—	—
	1,00	0,73	0,73	0,99	1,37	1,62	1,81	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,32	0,32	0,36	0,36	0,36	0,36	—	—	—	—
	0,55	0,32	0,32	0,36	0,36	0,36	0,36	—	—	—	—
	0,63	0,32	0,32	0,51	0,54	0,54	0,54	—	—	—	—
	0,75	0,32	0,32	0,51	0,56	0,56	0,56	—	—	—	—
	0,88	0,32	0,32	0,51	0,57	0,57	0,57	—	—	—	—
	1,00	0,32	0,32	0,51	0,60	0,61	0,66	—	—	—	—
	1,13	—	—	—	—	—	—	—	—	—	—
	1,25	—	—	—	—	—	—	—	—	—	—
	1,50	—	—	—	—	—	—	—	—	—	—
	1,75	—	—	—	—	—	—	—	—	—	—
	2,00	—	—	—	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD 4,2xL EZP
self-drilling screws

Annex 26

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

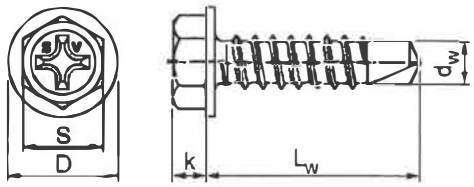
Washer: -

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 4{,}00$ mm

Timber substructures
no performance assessed



d_w = 4,8 mm
L_w = 16 – 32 mm
k = 4,5 mm
D = 10,0 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,25	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,50	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,75	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	2,00	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,55	0,53	0,53	0,53	0,53	—	—	—	—	—	—	—
	0,63	0,80	0,80	0,80	0,80	—	—	—	—	—	—	—
	0,75	0,85	0,85	0,85	0,85	—	—	—	—	—	—	—
	0,88	0,98	0,98	0,98	0,98	—	—	—	—	—	—	—
	1,00	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—
	1,13	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—
	1,25	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—
	1,50	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—
	1,75	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—
	2,00	1,09	1,09	1,09	1,09	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD 4,8xL EZP
self-drilling screws

Annex 27

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

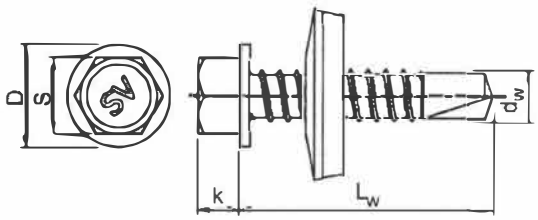
Washer: EPDM sealing ring with metal top
made of carbon steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 3{,}50$ mm

Timber substructures
no performance assessed



d_W = 4,8 mm
L_W = 13 and 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,25	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,50	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,75	2,70	2,70	2,70		—	—	—	—	—	—	—
	2,00	2,70	2,70	2,70		—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
	0,55	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
	0,63	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	0,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	0,88	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,13	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,25	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,50	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	2,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 4,8xL EZP
self-drilling screws

Annex 28

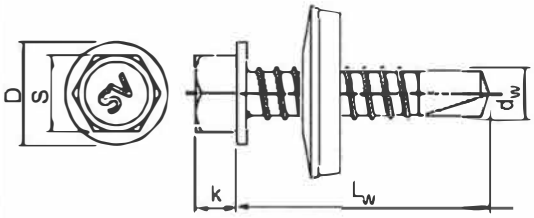
of European Technical Assessment ETA-17/0139

Materials

Fastener:	carbon steel – SAE1022 quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal
Washer:	EPDM sealing ring with metal top made of stainless steel ø14
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 3{,}50$ mm

Timber substructures
no performance assessed



d_w = 4,8 mm
L_w = 13 and 19 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

$t_{N,II}$ [mm]		1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$		3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
	0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
	0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
	1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,13	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
	1,25	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,50	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
	1,75	2,70	2,70	2,70		—	—	—	—	—	—	—
	2,00	2,70	2,70	2,70		—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
	0,55	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
	0,63	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	0,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	0,88	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,13	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,25	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,50	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	1,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
	2,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 4,8xL CorrSeal
self-drilling screws

Annex 29

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

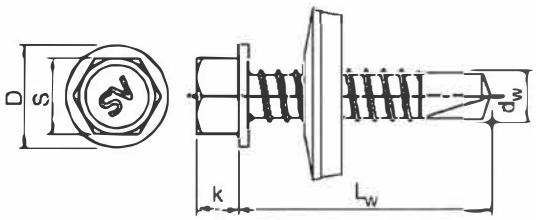
Washer: EPDM sealing ring with metal top
made of stainless steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 6{,}00$ mm

Timber substructures
no performance assessed



d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	—	—	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	—	—	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	—	—	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	—	—	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	—	—	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	—	—	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	—	—	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,63	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,55	1,63	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,63	1,63	2,65	3,03	3,03	—	—	—	—	—	—	—
	0,75	1,63	2,65	3,32	3,32	—	—	—	—	—	—	—
	0,88	1,63	2,65	3,56	3,56	—	—	—	—	—	—	—
	1,00	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,13	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,25	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,50	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,75	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	2,00	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL CorrSeal/5
self-drilling screws

Annex 30

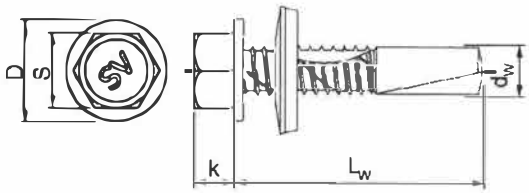
of European Technical Assessment ETA-17/0139

Materials

Fastener:	carbon steel – SAE1022 quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal
Washer:	EPDM sealing ring with metal top made of stainless steel ø16
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 16{,}00$ mm

Timber substructures
no performance assessed



d_w = 6,3 mm
L_w = 25 – 100 mm
k = 6,0 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		6,00	8,00	10,00	11,00	12,00	14,00	16,00	18,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	1,41	1,41	1,41	1,41	—	—	—	—	—
	0,55	1,41	1,41	1,41	1,41	1,41	1,41	—	—	—	—	—
	0,63	2,14	2,14	2,14	2,14	2,14	2,14	—	—	—	—	—
	0,75	2,51	2,51	2,51	2,51	2,51	2,51	—	—	—	—	—
	0,88	2,71	2,71	2,71	2,71	2,71	2,71	—	—	—	—	—
	1,00	3,08	3,08	3,08	3,08	3,08	3,08	—	—	—	—	—
	1,13	3,08	3,08	3,08	3,08	3,08	3,08	—	—	—	—	—
	1,25	4,02	4,02	4,02	4,02	4,02	4,02	—	—	—	—	—
	1,50	4,02	4,02	4,02	4,02	4,02	4,02	—	—	—	—	—
	1,75	4,02	4,02	4,02	4,02	4,02	4,02	—	—	—	—	—
	2,00	4,02	4,02	4,02	4,02	4,02	4,02	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	3,03	3,03	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	3,32	3,32	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	3,56	3,56	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 6,3xL CorrSeal/16
self-drilling screws

Annex 31

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022 quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

Washer: EPDM sealing ring with metal top made of stainless steel ø14

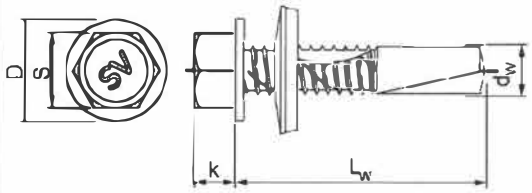
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 12{,}00$ mm

Timber substructures

no performance assessed



d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	3,03	3,03	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	3,32	3,32	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	3,56	3,56	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL CorrSeal/12
self-drilling screws

Annex 32

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022 quenched, tempered and galvanized

Washer: EPDM sealing ring with metal top made of carbon steel ø14

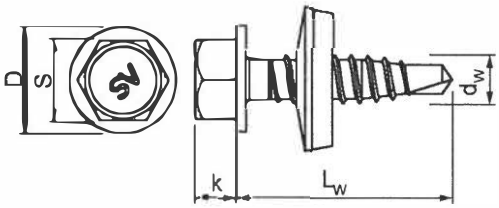
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 3{,}50$ mm

Timber substructures

no performance assessed



d_W = 4,8 mm
L_W = 20 mm
k = 4,5 mm
S = 8,0 mm
D = 10,5 mm

$t_{N,II}$ [mm]	1,00	1,25	1,50	2,00	3,00	4,00	5,00	6,00	Wood class ≥ C24		
$M_{t,nom}$	3 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
0,55	1,05	1,05	1,05	1,05	—	—	—	—	—	—	—
0,63	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
0,75	1,96	1,96	1,96	1,96	—	—	—	—	—	—	—
0,88	2,31	2,31	2,31	2,31	—	—	—	—	—	—	—
1,00	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
1,13	2,58	2,58	2,58	2,58	—	—	—	—	—	—	—
1,25	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
1,50	2,70	2,70	2,70	2,70	—	—	—	—	—	—	—
1,75	2,70	2,70	2,70		—	—	—	—	—	—	—
2,00	2,70	2,70	2,70		—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]											
0,50	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
0,55	1,09	1,51	1,57	2,13	—	—	—	—	—	—	—
0,63	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
0,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
0,88	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
1,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
1,13	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
1,25	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
1,50	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
1,75	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—
2,00	1,09	1,51	1,57	2,19	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-EPDM 4,8xL EZP
self-drilling screws

Annex 33

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

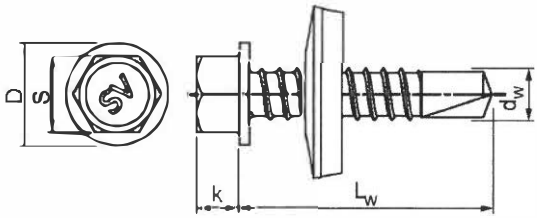
Washer: EPDM sealing ring with metal top
made of carbon steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 6{,}00$ mm

Timber substructures
no performance assessed



d_w = 5,5 mm
L_w = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	—	—	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	—	—	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	—	—	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	—	—	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	—	—	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	—	—	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	—	—	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,63	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,55	1,63	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,63	1,63	2,65	3,03	3,03	—	—	—	—	—	—	—
	0,75	1,63	2,65	3,32	3,32	—	—	—	—	—	—	—
	0,88	1,63	2,65	3,56	3,56	—	—	—	—	—	—	—
	1,00	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,13	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,25	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,50	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	1,75	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—
	2,00	1,63	2,65	4,00	4,00	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL EZP/5
self-drilling screws

Annex 34

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered and galvanized

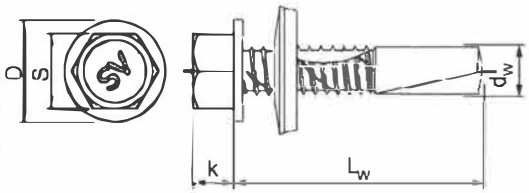
Washer: EPDM sealing ring with metal top
made of carbon steel ø14

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 12{,}00$ mm

Timber substructures
no performance assessed



d_w = 5,5 mm
L_w = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	3,03	3,03	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	3,32	3,32	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	3,56	3,56	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL EZP/12
self-drilling screws

Annex 35

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022 quenched, tempered and galvanized

Washer: EPDM sealing ring with metal top made of carbon steel ø14

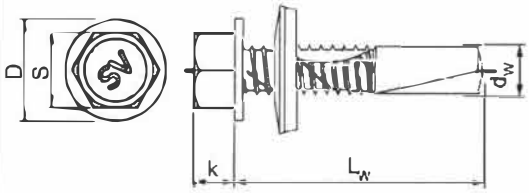
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 10{,}00$ mm

Timber substructures

no performance assessed



d_w = 5,5 mm
L_w = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	3,03	3,03	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	3,32	3,32	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	3,56	3,56	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL EZP/10
self-drilling screws

Annex 36

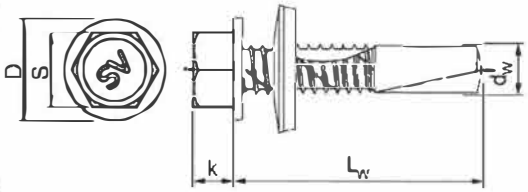
of European Technical Assessment ETA-17/0139

Materials

Fastener:	carbon steel – SAE1022 quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal
Washer:	EPDM sealing ring with metal top made of stainless steel ø14
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 10{,}00$ mm

Timber substructures
no performance assessed



d_W = 5,5 mm
L_W = 25 – 75 mm
k = 5,5 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	8,00	10,00	11,00	12,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,55	1,28	1,28	1,28	1,28	1,28	1,28	—	—	—	—	—
	0,63	1,59	1,59	1,59	1,59	1,59	1,59	—	—	—	—	—
	0,75	2,01	2,01	2,01	2,01	2,01	2,01	—	—	—	—	—
	0,88	2,17	2,17	2,17	2,17	2,17	2,17	—	—	—	—	—
	1,00	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,13	2,37	2,37	2,37	2,37	2,37	2,37	—	—	—	—	—
	1,25	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,50	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	1,75	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
	2,00	3,63	3,63	3,63	3,63	3,63	3,63	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	2,13	2,13	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	3,03	3,03	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	3,32	3,32	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	3,56	3,56	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 5,5xL CorrSeal/10
self-drilling screws

Annex 37

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022 quenched, tempered and galvanized

Washer: EPDM sealing ring with metal top made of carbon steel ø16

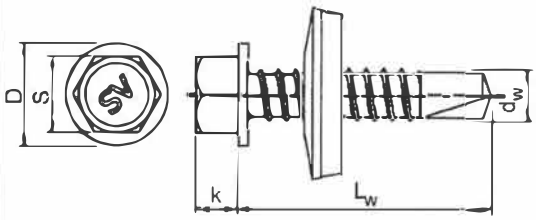
Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 6{,}00$ mm

Timber substructures

no performance assessed



d_w = 6,3 mm
L_w = 25 – 100 mm
k = 6,0 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$[mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,55	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,63	2,14	2,14	2,14	2,14	—	—	—	—	—	—	—
	0,75	2,51	2,51	2,51	2,51	—	—	—	—	—	—	—
	0,88	2,71	2,71	2,71	2,71	—	—	—	—	—	—	—
	1,00	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,13	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,25	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,50	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,75	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	2,00	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	—	—	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	—	—	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	—	—	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 6,3xL EZP
self-drilling screws

Annex 38

of European Technical Assessment ETA-17/0139

Materials

Fastener: carbon steel – SAE1022
quenched, tempered, galvanized and additionally protected by ceramic coating Corrseal

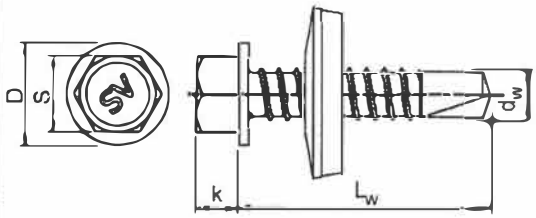
Washer: EPDM sealing ring with metal top
made of stainless steel ø16

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

Drilling capacity: $\Sigma t_i \leq 6{,}00$ mm

Timber substructures
no performance assessed



d_W = 6,3 mm
L_W = 25 – 100 mm
k = 6,0 mm
S = 8,0 mm
D = 11,0 mm

$t_{N,II}$ [mm]		1,50	2,00	3,00	4,00	5,00	6,00	8,00	10,00	Wood class ≥ C24		
$M_{t,nom}$		7 Nm								20 mm	30 mm	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,55	1,41	1,41	1,41	1,41	—	—	—	—	—	—	—
	0,63	2,14	2,14	2,14	2,14	—	—	—	—	—	—	—
	0,75	2,51	2,51	2,51	2,51	—	—	—	—	—	—	—
	0,88	2,71	2,71	2,71	2,71	—	—	—	—	—	—	—
	1,00	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,13	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,25	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,50	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	1,75	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
	2,00	3,08	3,08	3,08	3,08	—	—	—	—	—	—	—
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	2,13	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,55	2,13	2,13	2,13	2,13	—	—	—	—	—	—	—
	0,63	3,03	3,03	3,03	3,03	—	—	—	—	—	—	—
	0,75	3,32	3,32	3,32	3,32	—	—	—	—	—	—	—
	0,88	3,56	3,56	3,56	3,56	—	—	—	—	—	—	—
	1,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,13	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,25	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,50	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	1,75	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—
	2,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	—

ESSD and ESST

Fastening screws for metal members and sheeting

ESSD-HQ-EPDM 6,3xL CorrSeal/6
self-drilling screws

Annex 39

of European Technical Assessment ETA-17/0139

Determination of Design Values

1. **Determination of Design Shear Resistance**

   The determination of the design values of the shear resistance depends on the type of supporting substructure.

   For Metal Substructures the following applies:

   The design values $V_{R,d}$ of the shear resistance are the characteristic values of the shear resistance divided by the recommended partial safety factor γ_M = 1,33. The recommended partial safety factor γ_M should be used in cases where no value is given in national regulations of the Member State where the fastening screws are used.

   For Timber Substructures the following applies:

   The design values $V_{R,d}$ of the shear resistance are the characteristic values of the shear resistance multiplied by k_{mod} according to EN 1995-1-1, Table 3.1, and divided by the recommended partial safety factor γ_M = 1,33. If failure of the metal component with the thickness t_l and not failure of the timber substructure is the relevant failure mode then k_{mod} = 1,0.

   The recommended partial safety factor γ_M should be used in cases where no value is given in national regulations of the Member State where the fastening screws are used.

2. **Determination of Design Pull-through, Pull-out and Tension Resistance**

   The design values of the pull-through resistance are the characteristic values of the pull-through resistance divided by the recommended partial safety factor γ_M = 1,33. The recommended partial safety factor γ_M should be used in cases where no value is given in national regulations of the Member State where the fastening screws are used.

   The determination of the design values of the pull-out resistance depends on the type of substructure.

   For Metal Substructures the following applies:

   The design values of the pull-out resistance are the characteristic values of the pull-out resistance divided by the recommended partial safety factor γ_M = 1,33. The recommended partial safety factor γ_M should be used in cases where no value is given in national regulations of the Member State where the fastening screws are used.

   For Timber Substructures the following applies:

   The design values of the pull-out resistance are the characteristic values of the pull-out resistance multiplied by k_{mod} according to EN 1995-1-1, Table 3.1, and divided by the recommended partial safety factor γ_M = 1,33. The recommended partial safety factor γ_M should be used in cases where no value is given in national regulations of the Member State where the fastening screws are used.

   The design tension resistance $N_{R,d}$ is the minimum value of the design values of either pull-through resistance or relevant pull-out resistance for the corresponding connection.

3. **Design Resistance in case of combined Tension and Shear Forces (interaction)**

   In case of combined tension and shear forces the linear interaction formula according to EN 1993-1-3, section 8.3 (8) should be taken into account.