

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Konstruksjonsskrue ET-T, CorrSeal C4

Treskrue HEX, CorrSeal C4

Konstruksjonskrue WAF, CorrSeal C4

Konstruksjonskrue WAF, blankforsinket

Konstruksjonskrue WAF hvitt hode, blankforsinket

Konstruksjonskrue WAF, syrefast A4

Treskrue ESSDRIVE senkhode, CorrSeal C4

Treskrue ESSDRIVE, senkhode, blankforsinket

TILSIKTET BRUK

Produkten er ment for forbindelser i trekonstruksjoner i henhold til ETA-23/0747 (versjon 2025-09-30) og EAD 130118-01-0603 (utgave februar 2019).

PRODUSENT

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SYSTEM FOR VURDERING OG VERIFISERING AV BYGGEVARENS YTELSE (AVCP)

3

MELDT ORGAN

ZAG (TAB)

Konstruksjonsskrue ET-T, CorrSeal C4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6,5 mm	65 mm	8 mm	4,1 mm	22 mm
6,5 mm	90 mm	8 mm	4,1 mm	38 mm
6,5 mm	130 mm	8 mm	4,1 mm	38 mm
6,5 mm	160 mm	8 mm	4,1 mm	60 mm
6,5 mm	190 mm	8 mm	4,1 mm	80 mm
6,5 mm	220 mm	8 mm	4,1 mm	95 mm
8,2 mm	130 mm	10 mm	5,7 mm	38 mm
8,2 mm	160 mm	10 mm	5,7 mm	60 mm
8,2 mm	190 mm	10 mm	5,7 mm	80 mm
8,2 mm	220 mm	10 mm	5,7 mm	95 mm
8,2 mm	245 mm	10 mm	5,7 mm	107 mm
8,2 mm	275 mm	10 mm	5,7 mm	107 mm
8,2 mm	300 mm	10 mm	5,7 mm	135 mm
8,2 mm	330 mm	10 mm	5,7 mm	135 mm

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Konstruksjonsskrue ET-T, CorrSeal C4

Angitt ytelse			
Vesentlige egenskaper	Ytelse		Harmonisert teknisk spesifikasjon
Diameter	6,5 mm	8,2 mm	
Dimensjoner	ETA-23/0747, Annex A2	ETA-23/0747, Annex A2	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	8800	28300	ETA-23/0747
Bøyvinkel α [°]	$\geq 45^\circ$	$\geq 45^\circ$	ETA-23/0747
Karakteristisk uttrekksparameter $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,3	15,3	ETA-23/0747
Karakteristisk gjennomtrekksparameter $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	NPD	NPD	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	14,8	30,1	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	11,3	34,5	ETA-23/0747
Karakteristisk vridestyrke / innskruiingsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	$\geq 1,5$	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	ETA-23/0747, Annex A13	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 [EN 13501-1]	Class A1 [EN 13501-1]	ETA-23/0747

Konstruksjonsskrue ET-T, CorrSeal C4

Entydig identifikasjonskode for produkttypen			
Art.nr.	NOBB-nr	GTIN	Beskrivelse
118100	45836238	7317761151531	Konstruksjonsskrue ET-T 6,5X65 CorrSeal C4 -100
118102	45836242	7317761151548	Konstruksjonsskrue ET-T 6,5X90 CorrSeal C4 -100
118104	45836261	7317761151555	Konstruksjonsskrue ET-T 6,5X130 CorrSeal C4 -100
118106	45836276	7317761151562	Konstruksjonsskrue ET-T 6,5X160 CorrSeal C4 -50
118108	45836280	7317761151579	Konstruksjonsskrue ET-T 6,5X190 CorrSeal C4 -50
118110	45836306	7317761151586	Konstruksjonsskrue ET-T 6,5X220 CorrSeal C4 -50
118114	45836333	7317761151609	Konstruksjonsskrue ET-T 8,2X130 CorrSeal C4 -50
118116	45836344	7317761151616	Konstruksjonsskrue ET-T 8,2X160 CorrSeal C4 -50
118118	45836363	7317761151623	Konstruksjonsskrue ET-T 8,2X190 CorrSeal C4 -50
118120	45836378	7317761151630	Konstruksjonsskrue ET-T 8,2X220 CorrSeal C4 -50
118122	45836382	7317761151647	Konstruksjonsskrue ET-T 8,2X245 CorrSeal C4 -50
118124	45836401	7317761151654	Konstruksjonsskrue ET-T 8,2X275 CorrSeal C4 -50
118126	45836416	7317761151661	Konstruksjonsskrue ET-T 8,2X300 CorrSeal C4 -50
118128	45836435	7317761151678	Konstruksjonsskrue ET-T 8,2X330 CorrSeal C4 -50

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Treskrue HEX, CorrSeal C4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	50 mm	13 mm	3,8 mm	40 mm
6 mm	70 mm	13 mm	3,8 mm	40 mm
6 mm	90 mm	13 mm	3,8 mm	50 mm
6 mm	120 mm	13 mm	3,8 mm	75 mm
6 mm	140 mm	13 mm	3,8 mm	75 mm
8 mm	50 mm	15 mm	5,3 mm	45 mm
8 mm	70 mm	15 mm	5,3 mm	50 mm
8 mm	90 mm	15 mm	5,3 mm	50 mm
8 mm	120 mm	15 mm	5,3 mm	80 mm
8 mm	160 mm	15 mm	5,3 mm	80 mm
8 mm	200 mm	15 mm	5,3 mm	100 mm
8 mm	240 mm	15 mm	5,3 mm	100 mm
10 mm	50 mm	18 mm	6,6 mm	45 mm
10 mm	80 mm	18 mm	6,6 mm	60 mm
10 mm	100 mm	18 mm	6,6 mm	60 mm
10 mm	120 mm	18 mm	6,6 mm	80 mm
10 mm	160 mm	18 mm	6,6 mm	80 mm
10 mm	200 mm	18 mm	6,6 mm	100 mm
10 mm	240 mm	18 mm	6,6 mm	100 mm

Treskrue HEX, CorrSeal C4

Angitt ytelse				
Vesentlige egenskaper	Ytelse			Harmonisert teknisk spesifikasjon
Diameter	6 mm	8 mm	10 mm	
Dimensjoner	ETA-23/0747, Annex A3	ETA-23/0747, Annex A3	ETA-23/0747, Annex A3	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Bøyvinkel α [°]	$\geq 45^\circ$	$\geq 45^\circ$	$\geq 45^\circ$	ETA-23/0747
Karakteristisk uttrekkspareparameter $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	10,9	12,5	10	ETA-23/0747
Karakteristisk gjennomtrekkspareparameter $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,1	16,6	19,7	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridestyrke / innskrutningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	$\geq 1,5$	$\geq 1,5$	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	Service class 3 acc. to EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

Treskrue HEX, CorrSeal C4

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
113403	57756440	7317761901907	Treskrue HEX sekskanthode 6X50 CorrSeal C4 A-100
113408	57756455	7317761901914	Treskrue HEX sekskanthode 6X70 CorrSeal C4 A-100
113411	57756466	7317761901921	Treskrue HEX sekskanthode 6X90 CorrSeal C4 A-100
113415	57756474	7317761901938	Treskrue HEX sekskanthode 6X120 CorrSeal C4 -100
113417	57756485	7317761901945	Treskrue HEX sekskanthode 6X140 CorrSeal C4 A-50
113431	57756493	7317761901952	Treskrue HEX sekskanthode 8X50 CorrSeal C4 A-50
113435	57756504	7317761901969	Treskrue HEX sekskanthode 8X70 CorrSeal C4 A-50
113439	57756512	7317761901976	Treskrue HEX sekskanthode 8X90 CorrSeal C4 A-50
113443	57756523	7317761901983	Treskrue HEX sekskanthode 8X120 CorrSeal C4 A-50
113451	57756538	7317761901990	Treskrue HEX sekskanthode 8X160 CorrSeal C4 A-50
113453	57756542	7317761902003	Treskrue HEX sekskanthode 8X200 CorrSeal C4 A-25
113455	57756557	7317761902010	Treskrue HEX sekskanthode 8X240 CorrSeal C4 A-25
113461	57756561	7317761902027	Treskrue HEX sekskanthode 10X50 CorrSeal C4 A-50
113466	57756576	7317761902034	Treskrue HEX sekskanthode 10X80 CorrSeal C4 A-50
113467	57756580	7317761902041	Treskrue HEX sekskanthode 10X100 CorrSeal C4 -25
113469	57756595	7317761902058	Treskrue HEX sekskanthode 10X120 CorrSeal C4 -25
113473	57756606	7317761902065	Treskrue HEX sekskanthode 10X160 CorrSeal C4 -25
113477	57756614	7317761902072	Treskrue HEX sekskanthode 10X200 CorrSeal C4 -25
113481	57756625	7317761902089	Treskrue HEX sekskanthode 10X240 CorrSeal C4 -25

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Konstruksjonskrue WAF, CorrSeal C4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	40 mm	15,3 mm	3,9 mm	35 mm
6 mm	50 mm	15,3 mm	3,9 mm	40 mm
6 mm	60 mm	15,3 mm	3,9 mm	40 mm
6 mm	70 mm	15,3 mm	3,9 mm	40 mm
6 mm	80 mm	15,3 mm	3,9 mm	40 mm
6 mm	90 mm	15,3 mm	3,9 mm	50 mm
6 mm	100 mm	15,3 mm	3,9 mm	50 mm
6 mm	120 mm	15,3 mm	3,9 mm	75 mm
6 mm	140 mm	15,3 mm	3,9 mm	75 mm
6 mm	160 mm	15,3 mm	3,9 mm	75 mm
6 mm	180 mm	15,3 mm	3,9 mm	75 mm
6 mm	200 mm	15,3 mm	3,9 mm	75 mm
6 mm	220 mm	15,3 mm	3,9 mm	75 mm
8 mm	40 mm	22 mm	5,4 mm	35 mm
8 mm	50 mm	22 mm	5,4 mm	45 mm
8 mm	60 mm	22 mm	5,4 mm	50 mm
8 mm	70 mm	22 mm	5,4 mm	50 mm
8 mm	80 mm	22 mm	5,4 mm	50 mm
8 mm	90 mm	22 mm	5,4 mm	50 mm
8 mm	100 mm	22 mm	5,4 mm	60 mm
8 mm	120 mm	22 mm	5,4 mm	70 mm
8 mm	120 mm	22 mm	5,4 mm	80 mm
8 mm	140 mm	22 mm	5,4 mm	80 mm
8 mm	160 mm	22 mm	5,4 mm	80 mm
8 mm	180 mm	22 mm	5,4 mm	80 mm
8 mm	200 mm	22 mm	5,4 mm	100 mm
8 mm	220 mm	22 mm	5,3 mm	80 mm
8 mm	220 mm	22 mm	5,4 mm	100 mm
8 mm	240 mm	22 mm	5,4 mm	100 mm
8 mm	280 mm	22 mm	5,4 mm	100 mm
8 mm	300 mm	22 mm	5,4 mm	100 mm
8 mm	320 mm	22 mm	5,4 mm	100 mm

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Konstruksjonskrue WAF, CorrSeal C4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
10 mm	40 mm	25 mm	6,6 mm	35 mm
10 mm	50 mm	25 mm	6,6 mm	45 mm
10 mm	60 mm	25 mm	6,6 mm	55 mm
10 mm	70 mm	25 mm	6,6 mm	60 mm
10 mm	80 mm	25 mm	6,6 mm	60 mm
10 mm	100 mm	25 mm	6,6 mm	60 mm
10 mm	120 mm	25 mm	6,6 mm	80 mm
10 mm	140 mm	25 mm	6,6 mm	80 mm
10 mm	160 mm	25 mm	6,6 mm	80 mm
10 mm	180 mm	25 mm	6,6 mm	80 mm
10 mm	200 mm	25 mm	6,6 mm	100 mm
10 mm	220 mm	25 mm	6,6 mm	100 mm
10 mm	240 mm	25 mm	6,6 mm	100 mm

Konstruksjonskrue WAF, CorrSeal C4

Angitt ytelse

Vesentlige egenskaper	Ytelse			Harmonisert teknisk spesifikasjon
Diameter	6 mm	8 mm	10 mm	
Dimensjoner	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Bøyvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk uttrekkspesifikasjon $f_{ax,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	10,9	12,5	10	ETA-23/0747
Karakteristisk gjennomtrekkspesifikasjon $f_{head,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	16,3	12,6	15,5	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridestyrke / innskrutningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480$ kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

Konstruksjonskrue WAF, CorrSeal C4

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
10003342	60743886	7317761939429	Konstruksjonskrue WAF 6x40 CorrSeal C4 -100
113103	57167335	7317761905066	Konstruksjonskrue WAF 6X50 CorrSeal C4 A-100
9550113103		73177619555917	WOOD SCREW CONSTRUCTION-W 6,0X50 CS
113105	57167346	7317761905073	Konstruksjonskrue WAF 6X60 CorrSeal C4 A-100
113107	57167354	7317761905080	Konstruksjonskrue WAF 6X70 CorrSeal C4 A-100
113109	57167365	7317761905097	Konstruksjonskrue WAF 6X80 CorrSeal C4 A-100
9550113109		73177619555931	WOOD SCREW CONSTRUCTION-W 6,0X80 CS
113111	57167373	7317761905103	Konstruksjonskrue WAF 6X90 CorrSeal C4 A-100
113113	57166722	7317761905110	Konstruksjonskrue WAF 6X100 CorrSeal C4 -100
113115	57134821	7317761905127	Konstruksjonskrue WAF 6X120 CorrSeal C4 A-50
113117	57134836	7317761905134	Konstruksjonskrue WAF 6X140 CorrSeal C4 A-50
113119	57167384	7317761905141	Konstruksjonskrue WAF 6X160 CorrSeal C4 A-50
113121	57167392	7317761905158	Konstruksjonskrue WAF 6X180 CorrSeal C4 A-50
113123	57167403	7317761905165	Konstruksjonskrue WAF 6X200 CorrSeal C4 A-50
113127	57167418	7317761905172	Konstruksjonskrue WAF 6x220 CorrSeal C4 -50
10003718	60123196	7317761942528	Konstruksjonskrue WAF 8X40 CorrSeal C4 -4
113129	57134840	7317761905189	Konstruksjonskrue WAF 8X40 CorrSeal C4 A-50
10003729	60121987	7317761942634	Konstruksjonskrue WAF 8X50 CorrSeal C4 -4
113131	57167422	7317761905196	Konstruksjonskrue WAF 8X50 CorrSeal C4 A-50
10003719	60123195	7317761942535	Konstruksjonskrue WAF 8X60 CorrSeal C4 -4
113133	57167437	7317761905202	Konstruksjonskrue WAF 8X60 CorrSeal C4 A-50
10003720	60123194	7317761942542	Konstruksjonskrue WAF 8X70 CorrSeal C4 -4
113135	57167441	7317761905219	Konstruksjonskrue WAF 8X70 CorrSeal C4 A-50
10003721	60123193	7317761942559	Konstruksjonskrue WAF 8X80 CorrSeal C4 -4
113137	57167456	7317761905226	Konstruksjonskrue WAF 8X80 CorrSeal C4 A-50
10003722	60123192	7317761942566	Konstruksjonskrue WAF 8X90 CorrSeal C4 -4
113139	57167460	7317761905233	Konstruksjonskrue WAF 8X90 CorrSeal C4 A-50
10003723	60123191	7317761942573	Konstruksjonskrue WAF 8X100 CorrSeal C4 -4
113141	57167475	7317761905240	Konstruksjonskrue WAF 8X100 CorrSeal C4 A-50
10003728	60123201	7317761942627	Konstruksjonskrue WAF 8X120 CorrSeal C4 -4
113143	57167486	7317761905257	Konstruksjonskrue WAF 8X120 CorrSeal C4 A-50
113147	57167494	7317761905264	Konstruksjonskrue WAF 8X140 CorrSeal C4 A-50

Konstruksjonskrue WAF, CorrSeal C4

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
113151	57167505	7317761905271	Konstruksjonskrue WAF 8X160 CorrSeal C4 A-50
113152	57167513	7317761905288	Konstruksjonskrue WAF 8X180 CorrSeal C4 A-25
113153	57167524	7317761905295	Konstruksjonskrue WAF 8X200 CorrSeal C4 A-25
113145	48236466	7317761093886	Konstruksjonskrue WAF 8X220 CorrSeal C4 -20
113154	57167532	7317761905301	Konstruksjonskrue WAF 8X220 CorrSeal C4 A-20
113155	57167543	7317761905318	Konstruksjonskrue WAF 8X240 CorrSeal C4 A-20
113097	57172375	7317761905325	Konstruksjonskrue WAF 8X280 CorrSeal C4 A-25
113157	57167558	7317761905332	Konstruksjonskrue WAF 8X300 CorrSeal C4 A-25
113099	57172386	7317761905349	Konstruksjonskrue WAF 8X320 CorrSeal C4 A-25
113159	57131094	7317761905356	Konstruksjonskrue WAF 10X40 CorrSeal C4 A-50
113161	57167562	7317761905363	Konstruksjonskrue WAF 10X50 CorrSeal C4 A-50
113163	57134855	7317761905370	Konstruksjonskrue WAF 10X60 CorrSeal C4 A-50
113165	57134866	7317761905387	Konstruksjonskrue WAF 10X70 CorrSeal C4 A-50
113166	57134874	7317761905394	Konstruksjonskrue WAF 10X80 CorrSeal C4 A-50
113167	57167577	7317761905400	Konstruksjonskrue WAF 10X100 CorrSeal C4 -25
113169	57134885	7317761905417	Konstruksjonskrue WAF 10X120 CorrSeal C4 -25
113171	57167581	7317761905424	Konstruksjonskrue WAF 10X140 CorrSeal C4 -25
113173	57134893	7317761905431	Konstruksjonskrue WAF 10X160 CorrSeal C4 -25
113175	57167596	7317761905448	Konstruksjonskrue WAF 10X180 CorrSeal C4 -25
113177	57167600	7317761905455	Konstruksjonskrue WAF 10X200 CorrSeal C4 -20
113179	57134904	7317761905462	Konstruksjonskrue WAF 10X220 CorrSeal C4 -20
113181	57134912	7317761905479	Konstruksjonskrue WAF 10X240 CorrSeal C4 -20

Konstruksjonskrue WAF, blankforsinket

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	50 mm	15,3 mm	3,9 mm	40 mm
6 mm	60 mm	15,3 mm	3,9 mm	40 mm
6 mm	80 mm	15,3 mm	3,9 mm	40 mm
6 mm	90 mm	15,3 mm	3,9 mm	50 mm
6 mm	100 mm	15,3 mm	3,9 mm	50 mm
6 mm	120 mm	15,3 mm	3,9 mm	75 mm
6 mm	140 mm	15,3 mm	3,9 mm	75 mm
8 mm	70 mm	22 mm	5,4 mm	50 mm
8 mm	80 mm	22 mm	5,4 mm	50 mm
8 mm	90 mm	22 mm	5,4 mm	50 mm
8 mm	100 mm	22 mm	5,4 mm	60 mm
8 mm	120 mm	22 mm	5,4 mm	80 mm
8 mm	140 mm	22 mm	5,4 mm	80 mm
8 mm	160 mm	22 mm	5,4 mm	80 mm
8 mm	180 mm	22 mm	5,4 mm	80 mm
8 mm	200 mm	22 mm	5,4 mm	100 mm
8 mm	240 mm	22 mm	5,4 mm	100 mm
8 mm	280 mm	22 mm	5,4 mm	100 mm
8 mm	320 mm	22 mm	5,4 mm	100 mm
10 mm	80 mm	25 mm	6,6 mm	60 mm
10 mm	100 mm	25 mm	6,6 mm	60 mm
10 mm	120 mm	25 mm	6,6 mm	80 mm
10 mm	140 mm	25 mm	6,6 mm	80 mm
10 mm	160 mm	25 mm	6,6 mm	80 mm
10 mm	180 mm	25 mm	6,6 mm	80 mm
10 mm	200 mm	25 mm	6,6 mm	100 mm
10 mm	240 mm	25 mm	6,6 mm	100 mm

Konstruksjonskrue WAF, blankforsinket

Angitt ytelse				
Vesentlige egenskaper	Ytelse			Harmonisert teknisk spesifikasjon
Diameter	6 mm	8 mm	10 mm	
Dimensjoner	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Bøyvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk uttrekksparemer $f_{ax,k}$ [N/mm ²] (ρ_k = 350 kg/m ³)	10,9	12,5	10	ETA-23/0747
Karakteristisk gjennomtrekksparemer $f_{head,k}$ [N/mm ²] (ρ_k = 350 kg/m ³)	16,3	12,6	15,5	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridestyrke / innskrusningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ (ρ = 480 kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 2 etter Eurokode EN 1995-1-1	Klimaklasse 2 etter Eurokode EN 1995-1-1	Klimaklasse 2 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

Konstruksjonskrue WAF, blankforsinket

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
113203	57166983	7317761904519	Konstruksjonskrue WAF 6X50 blankforsinket -100
113205	57166998	7317761904526	Konstruksjonskrue WAF 6X60 blankforsinket -100
113209	57167002	7317761904533	Konstruksjonskrue WAF 6X80 blankforsinket -100
113211	57167017	7317761904540	Konstruksjonskrue WAF 6X90 blankforsinket -100
113213	57167021	7317761904557	Konstruksjonskrue WAF 6X100 blankforsinket -100
113215	57167036	7317761904564	Konstruksjonskrue WAF 6X120 blankforsinket -50
113217	57167040	7317761904571	Konstruksjonskrue WAF 6X140 blankforsinket -50
113235	57167055	7317761904588	Konstruksjonskrue WAF 8X70 blankforsinket A-50
113237	57167066	7317761904595	Konstruksjonskrue WAF 8X80 blankforsinket A-50
113239	57167074	7317761904601	Konstruksjonskrue WAF 8X90 blankforsinket A-50
113241	57167085	7317761904618	Konstruksjonskrue WAF 8X100 blankforsinket -50
113243	57167093	7317761904625	Konstruksjonskrue WAF 8X120 blankforsinket -50
113247	57167104	7317761904632	Konstruksjonskrue WAF 8X140 blankforsinket -50
113251	57167112	7317761904649	Konstruksjonskrue WAF 8X160 blankforsinket -50
113252	57167123	7317761904656	Konstruksjonskrue WAF 8X180 blankforsinket -25
113253	57167138	7317761904663	Konstruksjonskrue WAF 8X200 blankforsinket -25
113255	57167142	7317761904670	Konstruksjonskrue WAF 8X240 blankforsinket -25
113256	57167157	7317761904687	Konstruksjonskrue WAF 8X280 blankforsinket -25
113257	57167161	7317761904694	Konstruksjonskrue WAF 8X320 blankforsinket -25
113266	57167176	7317761904700	Konstruksjonskrue WAF 10X80 blankforsinket -50
113267	57167180	7317761904717	Konstruksjonskrue WAF 10X100 blankforsinket -25
113269	57167195	7317761904724	Konstruksjonskrue WAF 10X120 blankforsinket -25
113271	57167206	7317761904731	Konstruksjonskrue WAF 10X140 blankforsinket -25
113273	57167214	7317761904748	Konstruksjonskrue WAF 10X160 blankforsinket -25
113275	57167225	7317761904755	Konstruksjonskrue WAF 10X180 blankforsinket -25
113277	57167233	7317761904762	Konstruksjonskrue WAF 10X200 blankforsinket -25
113281	57167244	7317761904779	Konstruksjonskrue WAF 10X240 blankforsinket -20

Konstruksjonskrue WAF hvitt hode, blankforsinket

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	50 mm	15,3 mm	3,8 mm	40 mm
6 mm	60 mm	15,3 mm	3,8 mm	40 mm
6 mm	80 mm	15,3 mm	3,8 mm	40 mm

Konstruksjonskrue WAF hvitt hode, blankforsinket

Angitt ytelse

Vesentlige egenskaper	Ytelse	Harmonisert teknisk spesifikasjon
Diameter	6 mm	
Dimensjoner	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	11900	ETA-23/0747
Bøyvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk uttrekksparameter $f_{ax,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	10,9	ETA-23/0747
Karakteristisk gjennomtrekksparameter $f_{head,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	16,3	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,3	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	12,4	ETA-23/0747
Karakteristisk vridestyrke / innskruiingsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480$ kg/m ³) [Nm]	$\geq 1,5$	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 2 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	ETA-23/0747

Konstruksjonskrue WAF hvitt hode, blankforsinket

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
113204	57611975	7317761903147	Konstruksjonskrue WAF hvitt hode 6X50 blankforsinket -100
113206	57611986	7317761903154	Konstruksjonskrue WAF hvitt hode 6X60 blankforsinket -100
113210	57611994	7317761903161	Konstruksjonskrue WAF hvitt hode 6X80 blankforsinket -100

Konstruksjonskrue WAF, syrefast A4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	70 mm	14 mm	3,8 mm	50 mm
6 mm	90 mm	14 mm	3,8 mm	50 mm
6 mm	120 mm	14 mm	3,8 mm	70 mm
8 mm	40 mm	17 mm	5,3 mm	37 mm
8 mm	40 mm	17 mm	5,3 mm	40 mm
8 mm	70 mm	17 mm	5,3 mm	50 mm
8 mm	90 mm	17 mm	5,3 mm	50 mm
8 mm	120 mm	17 mm	5,3 mm	70 mm
8 mm	150 mm	17 mm	5,3 mm	80 mm
10 mm	40 mm	21 mm	6,3 mm	36 mm
10 mm	70 mm	21 mm	6,3 mm	50 mm
10 mm	90 mm	21 mm	6,3 mm	70 mm
10 mm	120 mm	21 mm	6,3 mm	70 mm
10 mm	150 mm	21 mm	6,3 mm	90 mm

Konstruksjonskrue WAF, syrefast A4

Angitt ytelse				
Vesentlige egenskaper	Ytelse			Harmonisert teknisk spesifikasjon
Diameter	6 mm	8 mm	10 mm	
Dimensjoner	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	6300	11600	19800	ETA-23/0747
Bøyvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk uttrekksparameter $f_{ax,k}$ [N/mm ²] (ρ_k = 350 kg/m ³)	16,1	15,5	14,1	ETA-23/0747
Karakteristisk gjennomtrekksparameter $f_{head,k}$ [N/mm ²] (ρ_k = 350 kg/m ³)	24,7	24,5	20,8	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	7,7	15,7	21,9	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	380	380	380	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	8,7	19,6	33,3	ETA-23/0747
Karakteristisk vridestyrke / innskruiingsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ (ρ = 480 kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

Konstruksjonskrue WAF, syrefast A4

Entydig identifikasjonskode for produkttypen			
Art.nr.	NOBB-nr	GTIN	Beskrivelse
113306	55297703	7317761869603	Konstruksjonskrue WAF 6X70 syrefast A4 -50
113310	55297718	7317761869610	Konstruksjonskrue WAF 6X90 syrefast A4 -50
113314	55297722	7317761869627	Konstruksjonskrue WAF 6X120 syrefast A4 -50
113325	55297737	7317761869634	Konstruksjonskrue WAF 8X40 syrefast A4 -50
10003724	60123200	7317761942580	Konstruksjonskrue WAF 8X40 syrefast A4 -4
10003725	60123199	7317761942597	Konstruksjonskrue WAF 8X70 syrefast A4 -4
113330	55297741	7317761869887	Konstruksjonskrue WAF 8X70 syrefast A4 -50
10003726	60123198	7317761942603	Konstruksjonskrue WAF 8X90 syrefast A4 -4
113334	55297756	7317761869900	Konstruksjonskrue WAF 8X90 syrefast A4 -50
10003727	60123197	7317761942610	Konstruksjonskrue WAF 8X120 syrefast A4 -4
113338	55297760	7317761869924	Konstruksjonskrue WAF 8X120 syrefast A4 -25
113340	55297775	7317761869948	Konstruksjonskrue WAF 8X150 syrefast A4 -25
113376	55297813	7317761869962	Konstruksjonskrue WAF 10X40 syrefast A4 -50
113382	55297824	7317761869986	Konstruksjonskrue WAF 10X70 syrefast A4 -50
113357	55297786	7317761870043	Konstruksjonskrue WAF 10X90 syrefast A4 -25
113360	55297794	7317761870067	Konstruksjonskrue WAF 10X120 syrefast A4 -25
113364	57213921	7317761902348	KONSTR.SKRUE WAF 10X120 7021 A4 SPS
113365	57214012	7317761902355	KONSTR.SKRUE WAF 10X120 9010 A4 SPS
113363	55297805	7317761870081	Konstruksjonskrue WAF 10X150 syrefast A4 -25

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Treskrue ESSDRIVE senkhode, CorrSeal C4

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	60 mm	11,7 mm	3,8 mm	36 mm
6 mm	70 mm	11,7 mm	3,8 mm	42 mm
6 mm	70 mm	11,7 mm	3,8 mm	43 mm
6 mm	80 mm	11,7 mm	3,8 mm	42 mm
6 mm	80 mm	11,7 mm	3,8 mm	43 mm
6 mm	90 mm	11,7 mm	3,8 mm	42 mm
6 mm	90 mm	11,7 mm	3,8 mm	43 mm
6 mm	100 mm	11,7 mm	3,8 mm	52 mm
6 mm	100 mm	11,7 mm	3,8 mm	53 mm
6 mm	110 mm	11,7 mm	3,8 mm	62 mm
6 mm	120 mm	11,7 mm	3,8 mm	72 mm
6 mm	140 mm	11,7 mm	3,8 mm	72 mm
6 mm	160 mm	11,7 mm	3,8 mm	72 mm
6 mm	180 mm	11,7 mm	3,8 mm	72 mm
6 mm	220 mm	11,7 mm	3,8 mm	72 mm
8 mm	80 mm	15 mm	5,4 mm	48 mm
8 mm	100 mm	15 mm	5,4 mm	60 mm
8 mm	120 mm	15 mm	5,4 mm	80 mm
8 mm	140 mm	15 mm	5,4 mm	80 mm
8 mm	160 mm	15 mm	5,4 mm	80 mm
8 mm	180 mm	15 mm	5,4 mm	80 mm
8 mm	200 mm	15 mm	5,4 mm	80 mm
8 mm	240 mm	15 mm	5,4 mm	80 mm
8 mm	300 mm	15 mm	5,4 mm	80 mm

Treskrue ESSDRIVE senkhode, CorrSeal C4

Angitt ytelse			
Vesentlige egenskaper	Ytelse		Harmonisert teknisk spesifikasjon
Diameter	6 mm	8 mm	
Dimensjoner	ETA-23/0747, Annex A5	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	7300	19700	ETA-23/0747
Bøyvinkel α [°]	$\geq 45^\circ$	$\geq 45^\circ$	ETA-23/0747
Karakteristisk uttrekksparameter $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	11,2	ETA-23/0747
Karakteristisk gjennomtrekksparameter $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	17,6	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,5	28,7	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	10,4	29,7	ETA-23/0747
Karakteristisk vridestyrke / innskruingsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	$\geq 1,5$	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 3 etter Eurokode EN 1995-1-1	Klimaklasse 3 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 [EN 13501-1]	Class A1 [EN 13501-1]	ETA-23/0747

Treskrue ESSDRIVE senkhode, CorrSeal C4

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
10003762	60124328	7317761942962	Treskrue ESSDRIVE senkhode 6X60 CorrSeal C4 - 10
137126	55210661	7317761847762	Treskrue ESSDRIVE senkhode 6X60 CorrSeal C4 A-100
10003763	60124323	7317761942979	Treskrue ESSDRIVE senkhode 6X70 CorrSeal C4 - 10
137127	54096204	7317761846383	Treskrue ESSDRIVE senkhode 6X70 CorrSeal C4 A-100
10003764	60124322	7317761942986	Treskrue ESSDRIVE senkhode 6X80 CorrSeal C4 - 10
137128	54096212	7317761846390	Treskrue ESSDRIVE senkhode 6X80 CorrSeal C4 A-100
137228	55022940	7317761847779	Treskrue ESSDRIVE senkhode 6X80 CorrSeal C4 A-500
10003765	60124307	7317761942993	Treskrue ESSDRIVE senkhode 6X90 CorrSeal C4 - 10
137130	54096223	7317761846406	Treskrue ESSDRIVE senkhode 6X90 CorrSeal C4 A-100
137231	54339664	7317761847786	Treskrue ESSDRIVE senkhode 6X90 CorrSeal C4 A-400
10003766	60124306	7317761943006	Treskrue ESSDRIVE senkhode 6X100 CorrSeal C4 - 10
137132	54096238	7317761846413	Treskrue ESSDRIVE senkhode 6X100 CorrSeal C4 A-100
137233	54339672	7317761847793	Treskrue ESSDRIVE senkhode 6X100 CorrSeal C4 A-400
137133	54096242	7317761846420	Treskrue ESSDRIVE senkhode 6X110 CorrSeal C4 A-100
10003767	60124305	7317761943013	Treskrue ESSDRIVE senkhode 6X120 CorrSeal C4 - 10
137134	54096257	7317761846437	Treskrue ESSDRIVE senkhode 6X120 CorrSeal C4 A-100
137235	54339683	7317761847809	Treskrue ESSDRIVE senkhode 6X120 CorrSeal C4 A-350
137136	54096261	7317761846444	Treskrue ESSDRIVE senkhode 6X140 CorrSeal C4 A-100
137138	55210676	7317761847816	Treskrue ESSDRIVE senkhode 6X160 CorrSeal C4 A-50
137140	55210680	7317761847823	Treskrue ESSDRIVE senkhode 6X180 CorrSeal C4 A-50
137142	55210695	7317761847830	Treskrue ESSDRIVE senkhode 6X220 CorrSeal C4 A-50
10002850	60167360	7317761935964	Treskrue ESSDRIVE senkhode 8X80 CorrSeal C4 A-50
10002851	60654531	7317761935971	TRESKRUE ESSDRIVE SENKHODE 8X100 CORRSEAL C4 -50
10002852	60133286	7317761935988	Treskrue ESSDRIVE senkhode 8X120 CorrSeal C4 A-50
10002853	60156825	7317761935995	Treskrue ESSDRIVE senkhode 8x140 CorrSeal C4 -50
10002854	60131102	7317761936008	Treskrue ESSDRIVE senkhode 8X160 CorrSeal C4 A-50
10002855	60131103	7317761936015	Treskrue ESSDRIVE senkhode 8X180 CorrSeal C4 A-50
10002856	60654532	7317761936022	TRESKRUE ESSDRIVE SENKHODE 8X200 CORRSEAL C4 -50
10002857	60654533	7317761936039	TRESKRUE ESSDRIVE SENKHODE 8X240 CORRSEAL C4 -50
10002858	60156826	7317761936046	Treskrue ESSDRIVE senkhode 8x300 CorrSeal C4 -50

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Treskrue ESSDRIVE, senkhode, blankforsinket

Geometri				
Utvendig diameter	Lengde	Diameter hode	Kjernediameter	Gjengelengde
6 mm	40 mm	11,7 mm	3,8 mm	24 mm
6 mm	50 mm	11,7 mm	3,8 mm	30 mm
6 mm	60 mm	11,7 mm	3,8 mm	36 mm
6 mm	70 mm	11,7 mm	3,8 mm	42 mm
6 mm	80 mm	11,7 mm	3,8 mm	42 mm
6 mm	90 mm	11,7 mm	3,8 mm	42 mm
6 mm	100 mm	11,7 mm	3,8 mm	52 mm
6 mm	110 mm	11,7 mm	3,8 mm	62 mm
6 mm	120 mm	11,7 mm	3,8 mm	72 mm
6 mm	130 mm	11,7 mm	3,8 mm	72 mm
6 mm	140 mm	11,7 mm	3,8 mm	72 mm
6 mm	150 mm	11,7 mm	3,8 mm	72 mm

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Treskrue ESSDRIVE, senkhode, blankforsinket

Angitt ytelse		
Vesentlige egenskaper	Ytelse	Harmonisert teknisk spesifikasjon
Diameter	6 mm	
Dimensjoner	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristisk flytemoment $M_{y,k}$ [Nmm]	7300	ETA-23/0747
Bøyvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk uttrekksparameter $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	ETA-23/0747
Karakteristisk gjennomtrekksparameter $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	ETA-23/0747
Karakteristisk strekkfasthet $f_{tens,k}$ [kN]	13,5	ETA-23/0747
Karakteristisk flytegrense $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridestyrke $f_{tor,k}$ [Nm]	10,4	ETA-23/0747
Karakteristisk vridestyrke / innskruiingsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Innbyrdes avstand, ende- og kantavstand	EN 1995-1-1	ETA-23/0747
Glidemodul K_{ser} [N/mm]	NPD	ETA-23/0747
Bestandighet mot korrosjon	Klimaklasse 2 etter Eurokode EN 1995-1-1	ETA-23/0747
Reaksjon på brann	Class A1 (EN 13501-1)	ETA-23/0747

Treskrue ESSDRIVE, senkhode, blankforsinket

Entydig identifikasjonskode for produkttypen

Art.nr.	NOBB-nr	GTIN	Beskrivelse
136159	55362474	7317761848165	Treskrue ESSDRIVE senkhode 6X40 blankforsinket A-200
10003816	60123227	7317761943495	Treskrue ESSDRIVE senkhode 6X50 blankforsinket -10
136140	55255972	7317761848172	Treskrue ESSDRIVE senkhode 6X50 blankforsinket A-200
10003817	60124315	7317761943501	Treskrue ESSDRIVE senkhode 6X60 blankforsinket - 10
136141	55370026	7317761848189	Treskrue ESSDRIVE senkhode 6X60 blankforsinket A-100
10003818	60124314	7317761943518	Treskrue ESSDRIVE senkhode 6X70 blankforsinket - 10
136142	55370034	7317761848196	Treskrue ESSDRIVE senkhode 6X70 blankforsinket A-100
10003819	60124313	7317761943525	Treskrue ESSDRIVE senkhode 6X80 blankforsinket - 10
136143	55370045	7317761848202	Treskrue ESSDRIVE senkhode 6X80 blankforsinket A-100
136243	55370193	7317761848219	Treskrue ESSDRIVE senkhode 6X80 blankforsinket A-500
436143	56842433	7317761848592	TRESKRUE ESSDRIVE senkhode 6X80 Blankforsinket A-10
136160	55370140	7317761848226	Treskrue ESSDRIVE senkhode 6X90 blankforsinket A-100
136260	55370223	7317761848233	Treskrue ESSDRIVE senkhode 6X90 blankforsinket A-450
10003820	60124311	7317761943532	Treskrue ESSDRIVE senkhode 6X90 blankforsinket - 10
10003821	60123226	7317761943549	Treskrue ESSDRIVE senkhode 6X100 blankforsinket -10
136144	55362466	7317761848240	Treskrue ESSDRIVE senkhode 6X100 blankforsinket -100
136244	55370204	7317761848257	Treskrue ESSDRIVE senkhode 6X100 blankforsinket -400
136145	55370053	7317761848264	Treskrue ESSDRIVE senkhode 6X110 blankforsinket -100
10003822	60124312	7317761943556	Treskrue ESSDRIVE senkhode 6X120 blankforsinket - 10
136146	55370064	7317761848271	Treskrue ESSDRIVE senkhode 6X120 blankforsinket -100
136246	55370212	7317761848288	Treskrue ESSDRIVE senkhode 6X120 blankforsinket -350
136147	55370072	7317761848295	Treskrue ESSDRIVE senkhode 6X130 blankforsinket -100
136148	55370083	7317761848301	Treskrue ESSDRIVE senkhode 6X140 blankforsinket -100
136149	55370098	7317761848318	Treskrue ESSDRIVE senkhode 6X150 blankforsinket -100

YTELSESERKLÆRING

DoP-ETA-230747 [NO]

Den ovennevnte byggevarens ytelse er i samsvar med angitt ytelse. Denne ytelseserklæringen er utstedt i samsvar med forordning (EU) nr. 305/2011 på ovennevnte produsents eget ansvar.

Undertegnet, for og på vegne av produsenten, av:



Viktor Bukowski, Product manager, concrete & mass timber fasteners
Kista 2026-01-28



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European Technical Assessment

ETA-23/0747
of 30.09.2025

English version prepared by ZAG

General Part

**Technical Assessment Body issuing the
European Technical Assessment**

ZAG

Trade name of the construction product

**ESSVE Construction screws ET-T, HF(HEX),
W(WAF), Wood screws ESSDRIVE**

**Product family to which the construction
product belongs**

**13: Structural timber products, elements
and ancillaries**

Manufacturer

**ESSVE AB
P.O. Box 7091
SE-16407 Kista
<https://www.essve.com/>**

Manufacturing plant

Plant 1, 2, 3, 4

This European Technical Assessment contains

**22 pages including Annex A 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**

**EAD 130118-01-0603, Screws and threaded
rods for use in timber construction,
edition February 2019**

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Specific parts

1 Technical description of the product

ESSVE Construction screws ET-T, HF (HEX), W (WAF), Woodscrews ESSDRIVE are dowel type self-tapping screws to be used in timber structures. The following types of fasteners are subject of this ETA (see also Annex A):

- Construction screws ET-T, diameters 6.5 and 8.2 mm, Material: hardened carbon steel, Cylindrical head, CorrSeal corrosion protection.
- Construction screws HF(HEX), diameters 6, 8 and 10 mm, Material: hardened carbon steel, Hexagon head with flange, CorrSeal corrosion protection.
- Construction screws W(WAF), diameters 6, 8 and 10 mm, Material: hardened carbon steel, Wafer head, Electro zinc plated (EZP) or CorrSeal corrosion protection.
- Construction screws W(WAF), diameters 6, 8 and 10 mm, Material: austenitic stainless steel A4 (SAE 316), Wafer head.
- ESSDRIVE screws, diameters 6 and 8 mm, Material: hardened carbon steel, Countersunk head, CorrSeal corrosion protection or Electro zinc plated (EZP).

Screws made from stainless steel are not hardened.

Screws subject of this ETA have diameters in range $6 \leq d \leq 10$ mm, minimum threaded length $4 \cdot d$ ($l_g \geq 4 \cdot d$), ratio d_1/d in range 0.62 - 0.70, tolerances according to EAD 130118-01-0603, Table 1, and bending angle α at least $45 / d^{0.7} + 20$ (in °).

Detailed dimensions of products are presented in Annex A.

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

The products are to be used for connections in timber constructions, e. g.:

- timber / timber, wood-based panels / timber, steel / timber connections, steel / wood - based panels,
- reinforcement of timber in areas of high tensile stresses perpendicular to the grain or compression stresses perpendicular to the grain (e.g. supports of beams),
- fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades.

Wood and various wood based materials / structural members can be used:

- Structural timber with rectangular cross section (EN 14081-1);
- Structural finger jointed solid timber (EN 15497);
- Glued solid timber, glue laminated timber (glulam), blocked glued glulam (EN 15497);
- Cross laminated timber (ETA according to EAD 130005-00-0304);
- Solid wood slab element (ETA according to EAD 130002-00-0304);
- Laminated veneer lumber / Glue laminated timber made of hardwood LVL (EN 14374 or ETA according to EAD 130010-01-0304);
- Wood based panels - Plywood (EN 13986 / EN 636);
- Other engineering products subject according to ETA where provisions for use of screws are given.

The general use conditions for which this EAD is valid are given in EN 1995-1-1. The use of the screws shall be limited to static and quasi-static actions, the design of the connections shall be based on the characteristic load-carrying capacities of the screw taking into consideration national provisions.

Depending on the durability of the fastener coating or of the stainless steel which the fasteners are made of they are used in constructions in Service classes 1 to 3 conditions according to EN 1995-1-1 considering the admissible service conditions and the admissible corrosive category according to EN ISO 12944-2 (and as informative according to prEN 1995-1-1:2023). Resistance to corrosion shall take into consideration national provisions at the installation site considering environmental conditions.

The provisions made in this ETA are based on an assumed intended working life (not the same as producer guarantee) for the intended of product taking into consideration proper use and maintenance of 50 years. These provisions are based upon the current state of the art and the available knowledge and experience. The actual working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for the works.

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

The assessment is performed according to EAD 130118-01-0603: Screws and threaded rods for use in timber construction, edition February 2019. If not dated the latest release of referenced documents should always be taken into consideration.

Table 1: Performance of the product

Product-type: Screws for use in timber construction		Intended use: For use in connections in load bearing timber structures	
Basic Work Requirements (BWR)	Essential characteristics of construction product	Assessment method	Product performance*
BWR 1 (Mechanical resistance and stability)	Dimensions	Clause 3.1.1	Clause 3.1.1 Annex A1 - A5
	Characteristic yield moment	Clause 3.1.2	Clause 3.1.2
	Bending angle	Clause 3.1.3	Clause 3.1.3
	Characteristic withdrawal parameter	Clause 3.1.4	Clause 3.1.4
	Characteristic head pull-through parameter of screws	Clause 3.1.5	Clause 3.1.5
	Characteristic tensile strength	Clause 3.1.6	Clause 3.1.6
	Characteristic yield strength	Clause 3.1.7	Clause 3.1.7
	Characteristic torsional strength	Clause 3.1.8	Clause 3.1.8
	Insertion moment	Clause 3.1.9	Clause 3.1.9
	Spacing, end and edge distances of the screws or threaded rods and minimum thickness of the timber material	Clause 3.1.10	Clause 3.1.10
	Slip modulus for mainly axially loaded screws	Clause 3.1.11	Clause 3.1.11
	Durability against corrosion	Clause 3.1.12	Clause 3.1.12
BWR 2 (Safety in case of fire)	Reaction to fire	Clause 3.2.1	Clause 3.2.1
BWR 4 (Safety and accessibility in use)	Same as BWR 1		

* NPA – No performance assessed.

This ETA is issued for the products on the basis of agreed data, deposited with Slovenian National Building and Civil Engineering Institute (hereinafter ZAG), which identifies the product that has been assessed and judged. Changes to the production process or the product itself, which could result in this deposited data being incorrect, should be notified to ZAG before the changes are introduced. ZAG will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment, and / or alteration to the ETA, shall be necessary.

Product characteristics are based on proved data provided by producer or by appropriate standards. Relevance of defined product characteristics is related to validity of standard / reports used in preparation of ETA.

3.1 Mechanical resistance and stability (BWR 1)

3.1.1. Dimensions

Dimensions of screws were measured according to the provisions of EN 14592 and are presented in Annexes A1 - A6.

3.1.2. Characteristic yield moment

The values of characteristic yield moments were determined by tests according to EN 409 and evaluated according to EN 14358. Values are given in Annex A7. No cracks were observed at angle α_k .

3.1.3. Bending angle

The bending angles of the screws were determined by tests according to EAD 130118-01-0603, Ch. 2.2.3. The plastic bending angles of all types of screws are $\geq 45^\circ$.

3.1.4. Characteristic withdrawal parameter

The values of characteristic withdrawal parameters were determined on solid timber / glulam by tests according to EN 1382, without pre-drilling; values given in Annex A8 are corrected with factor k_p .

3.1.5. Characteristic head pull-trough parameter of screws

The values of characteristic head pull-trough parameters were determined on solid timber / glulam by tests according to EN 1383 (see Annex A9), without pre-drilling. For other materials values given in Annex A9 were taken from EAD 130118-01-0603, Ch. 2.2.5.1.

3.1.6. Characteristic tensile strength

The values of characteristic tensile strengths of screws were determined by testing (EAD 130118-01-0603, Ch. 2.2.6, values are presented in Annex A10.

3.1.7. Characteristic yield strength

The values of characteristic yield strengths of screws were determined by testing (EAD 130118-01-0603, Ch. 2.2.7, values are presented in Annex A11.

3.1.8. Characteristic torsional strength

The values of characteristic torsional strengths of screws were determined by testing (EAD 130118-01-0603, Ch. 2.2.8.1), without pre-drilling, values are presented in Annex A12.

3.1.9. Insertion moment

The values of insertion moments of screws were determined by testing (EAD 130118-01-0603, Ch. 2.2.9), without pre-drilling, values are presented in Annex A12.

3.1.10. Spacing, end and edge distances of the screws or threaded rods and minimum thickness of the timber material

The values of spacing, end and edge distances of the screws were determined by testing (EAD 130118-01-0603, Ch. 2.2.10.2), values for some types are presented in Annex A13, for others no performance assessed (NPA) option is applied.

3.1.11. Slip modulus for mainly axially loaded screws

No performance assessed (NPA) option is applied.

3.1.12. Durability against corrosion

Type and thickness of corrosion protection / type of stainless steel is given in Annex A1. Contact between screws, acid (in terms of metal corrosion) timber species and other components of the joint made from metal shall not result in corrosion in the intended use. Contact between screws and timber preservative treated against biological attack or fire retardants shall not result in corrosion in the intended use. If screws are used in preservative treated timber the compatibility has to be assessed.

Screws with electro zinc plated (EZP) corrosion protection can be used in Use classes 1 and 2 (acc. to EN 1995-1-1) and screws with CorrSeal corrosion protection or stainless steel in Use classes 1, 2 and 3 (acc. to EN 1995-1-1).

3.2 Safety in case of fire (BWR 2)

3.2.1 Reaction to fire

Screws made from steel / stainless steel are classified as Class A1 of reaction to fire in accordance with EN 13501-1 and European Commission Decision 96/603/EC amended by European Commission Decisions 2000/605/EC and 2003/424/EC.

It is assumed that due to thin layer of lubricants / coatings do not contribute to fire growth or the fully developed fire and have no significant influence to the smoke hazard.

3.2 Safety and accessibility in use (BWR 4)

Same as BWR 1.

3.3 General aspects

3.3.1 Identification

The identification parameters and reference to product specifications is given in Annex A.

3.3.2 Installation

The installation (pre-drilling, minimum spacing and edge and end distances) shall be carried out in accordance with EN 1995-1-1, an appropriate national provisions and instructions from manufacturer.

Pre-drilling is not required but optional; the drill dimension d_{drill} shall not be larger than the one given in Table 2.

Table 2: Pre-drilling: drill dimensions.

Product	d [mm]	d ₁ [mm]	Softwood	Hardwood
			d _{drill} [mm]	d _{drill} [mm]
ET-T	6.5	4.0	4.0	4.0
ET-T	8.2	5.7	5.5	6.0
HF(HEX)	6	3.8	3.5	4.0
HF(HEX)	8	5.3	5.0	5.5
HF(HEX)	10	6.6	6.5	7.0
W(WAF)	6	3.8	3.5	4.0
W(WAF)	8	5.3	5.0	5.5
W(WAF)	10	6.6	6.5	7.0
ESSDRIVE	6	3.8	3.5	4.0
ESSDRIVE	8	5.4	5.0	5.5

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied

According to the Commission Decision 97/176/EC, the system of assessment and verification of constancy of performance (AVCP) (see Annex V of Regulation (EU) No 305/2011 and Commission Delegated Regulation (EU) No 568/2014) to be applied for specified use of the product is **3**.

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 EAD 130118-01-0603, Ch. 3.

Issued in Ljubljana on 30.09.2025

Signed by:

mag. Franc Capuder, univ. dipl. inž. grad.

Head of Service of TAB

ANNEX A: Products description / characteristic

Index:

- A1 ESSVE screws - products overview
- A2 Construction screws ET-T, $\varnothing$ 6.5, 8.2 mm
- A3 Construction screws HF(HEX), $\varnothing$ 6, 8, 10 mm (EZP, CorrSeal)
- A4 Construction screws W(WAF), $\varnothing$ 6, 8, 10 mm (EZP, CorrSeal)
- A5 Construction screws W(WAF), $\varnothing$ 6, 8, 10 mm (Austenitic stainless steel)
- A6 Wood screws ESSDRIVE, $\varnothing$ 6, 8 mm (EZP, CorrSeal)
- A7 Characteristic yield moment and plastic bending angle
- A8 Characteristic withdrawal parameter
- A9 Characteristic head pull-trough parameter
- A10 Characteristic tensile strength and Characteristic yield strength
- A11 Characteristic torsional strength / Insertion moment
- A12 Spacing, end and edge distances of the screws
- A13 Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades

A1: ESSVE screws – products overview

Table A1: Products overview.

Screw type	d [mm]	l [mm]	Head type	Steel grade	Coating type***
ET-T	6.5	65 - 220	Cylindrical	Hardened carbon steel	CorrSeal*
	8.2	90 - 330			
HF(HEX)	6	40 - 220	Hex	Hardened carbon steel	CorrSeal*
	8	40 - 340			
	10	40 - 240			
W(WAF)	6	40 - 220	Wafer	Hardened carbon steel	EZP**
	8	40 - 340			
	10	40 - 240			
W(WAF)	6	40 - 220	Wafer	Hardened carbon steel	CorrSeal*
	8	40 - 340			
	10	40 - 240			
W(WAF)	6	70 - 120	Wafer	Austenitic stainless steel A4 (SAE 316)	
	8	40 - 150			
	10	40 - 150			
ESSDRIVE	6	40 - 240	Countersunk	Hardened carbon steel	EZP**
	8	40 - 300			
ESSDRIVE	6	40 - 240	Countersunk	Hardened carbon steel	CorrSeal*
	8	40 - 300			

* CorrSeal: Zinc - based coating, min 23 µm.

** EZP: Electro zinc plated, min. 5 µm.

***Alternative corrosion protection: to be declared in accordance with EN 14592 / EN 1995-1-1.

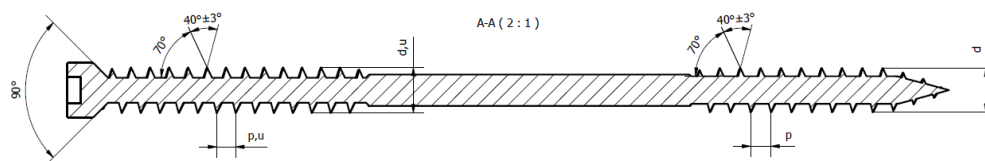
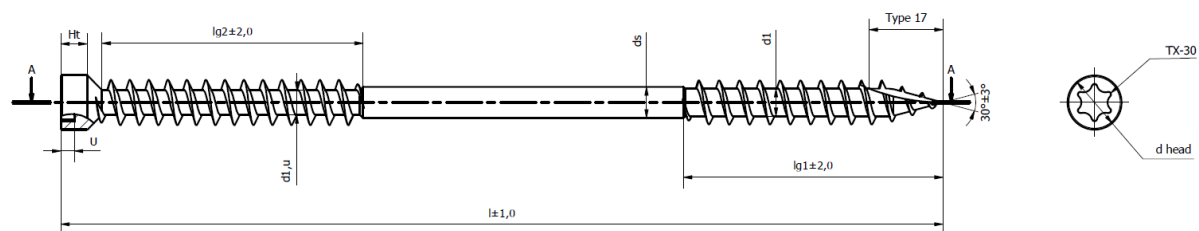
Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE

ESSVE

Annex A (1/15)

A2: Construction screws ET-T, $\varnothing$ 6.5, 8.2 mm

ET-T, $\varnothing$ 6.5 mm

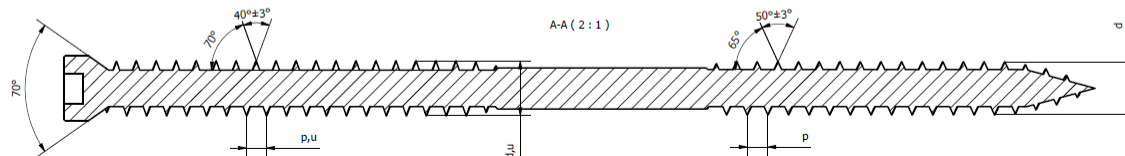
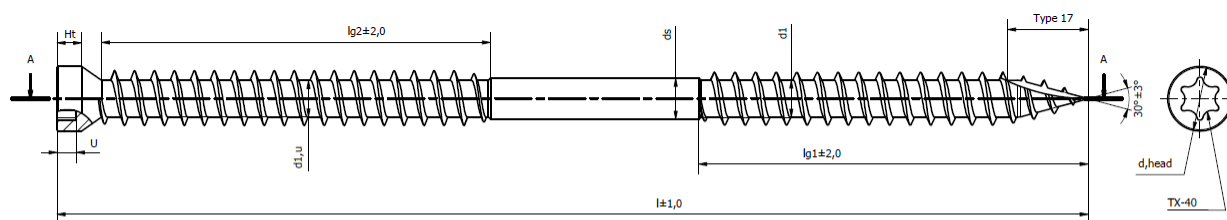


d	6.5 mm
d,u	6.7 mm
d1	4.1 mm
d1,u	3.6 mm
p	3.1 mm
p,u	2.8 mm
d,s	4.6 mm

d head	8.0 mm
Ht	3.9 mm
U	2 mm

l [mm]	lg1 [mm]	lg2 [mm]
65	22	22
90	38	38
130	38	38
160	60	60
190	80	80
220	95	95

ET-T, $\varnothing$ 8.2 mm



d	8.2 mm
d,u	8.5 mm
d1	5.7 mm
d1,u	5.6 mm
p	3.3 mm
d,s	6.3 mm
d,head	10 mm

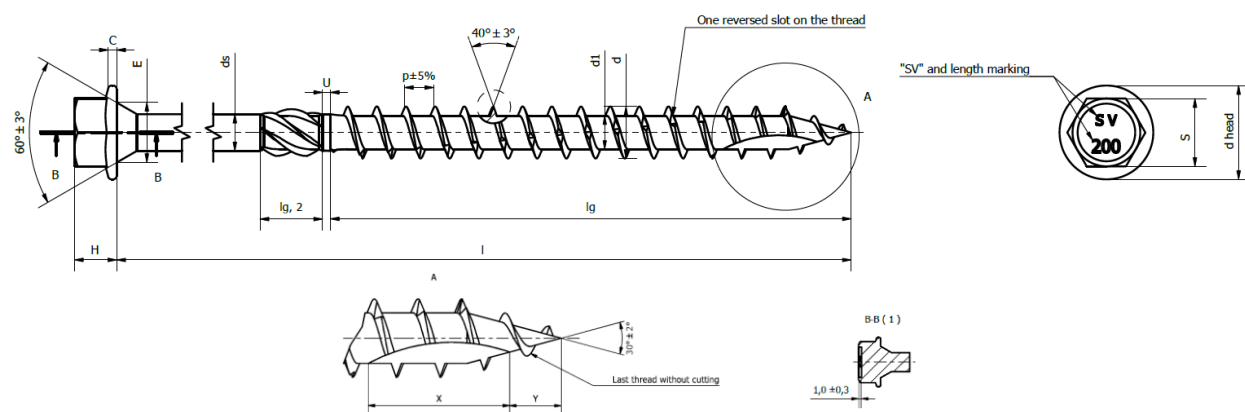
l [mm]	lg1 [mm]	lg2 [mm]	p,u [mm]	Ht [mm]	U [mm]
90	38	38	2.9	3.8	3.0
130	38	38	2.9	3.8	3.0
160	60	60	3.0	3.8	3.0
190	80	80	3.0	3.8	3.0
220	95	95	3.0	3.8	3.0
245	107	107	3.0	4.8	4.0
275	107	107	3.0	4.8	4.0
300	135	135	3.1	4.8	4.0
330	135	135	3.1	4.8	4.0

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE

ESSVE

Annex A (2/15)

A3: Construction screws HF(HEX), ø 6, 8, 10 mm



Size [mm]	d [mm]	d1 [mm]	ds [mm]	P [mm]	E [mm]	C [mm]	H [mm]	S [mm]	d head [mm]	X* [mm]	Y* [mm]
6	6.0	3.8	4.2	4.5	7.9	min. 1.0	max. 5.8	7.9	13.0	16.5	5.0
8	8.0	5.3	5.8	5.2	10.0	min. 1.1	max. 6.6	9.9	15.0	17.0	5.0
10	10.0	6.6	7.0	5.6	11.5	min. 1.2	max. 8.1	12.9	18.0	20.0	5.0

* L $\geq$ 60 mm, L < 60 mm: Type 17-cut.

Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
6x40	40	40	Not available
6x50	50		
6x60	60		50
6x70	70		
6x80	80		
6x90	90		
6x100	100		
6x120	120		
6x140	140		
6x160	160		
6x180	180		
6x200	200		
6x220	220		

Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
8x40	40	Full	Not available
8x50	50		
8x60	60		
8x70	70	50	12
8x80	80		
8x90	90		
8x100	100		
8x120	120	60	
8x140	140	80	
8x160	160		
8x180	180		
8x200	200		
8x220	220	100	
8x240	240		
8x280	280		
8x300	300		
8x320	320		
8x340	340		

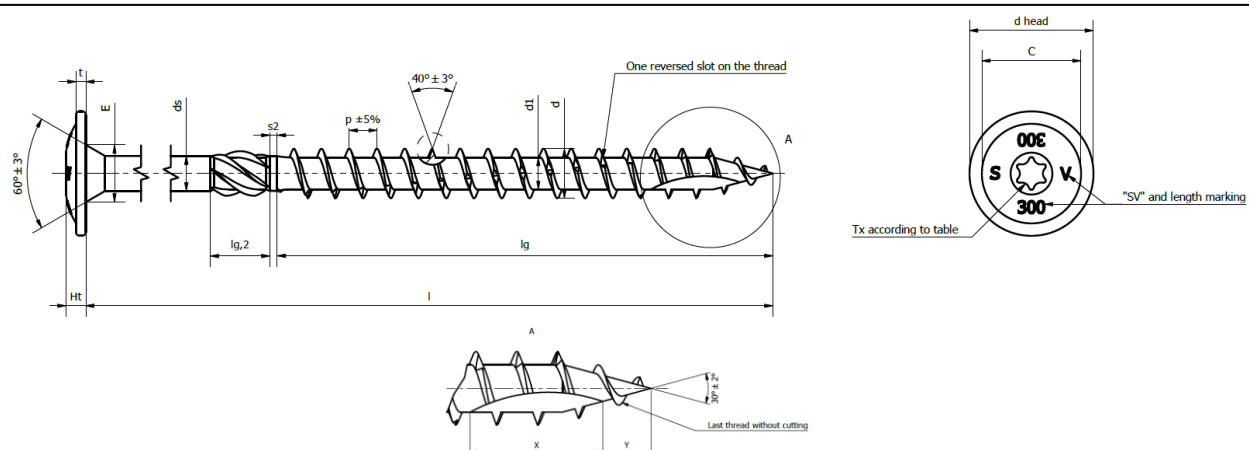
Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
10x40	40	Full	Not available
10x50	50		
10x60	60		
10x70	70	60	12
10x80	80		
10x100	100		
10x120	120	80	
10x140	140		
10x160	160		
10x180	180		
10x200	200	100	
10x220	220		
10x240	240		

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (3/15)

A4: Construction screws W(WAF), ø 6, 8, 10 mm (EZP, CorrSeal)



Size [mm]	d [mm]	d1 [mm]	P [mm]	E [mm]	Ht [mm]	t [mm]	s2 [mm]	d head [mm]	C [mm]	Tx	Txdepth [mm]	ds [mm]	X* [mm]	Y* [mm]
6	6.0	3.9	4.5	8.0	2.9	1.6	1.5	15.3	11.0	30	2.7	4.2	16.5	5.0
8	8.0	5.4	5.2	10.0	3.4	1.8	1.5	22.0	16.0	40	3.4	5.8	17.0	5.0
10	10.0	6.6	5.6	11.5	4.0	2.0	NA	25.0	20.0	40	3.8	7.0	20.0	5.0

* L ≥ 60 mm, L < 60 mm: Type 17-cut.

Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
6x40	40	40	Not available
6x50	50		
6x60	60		
6x70	70		
6x80	80	50	12
6x90	90		
6x100	100	75	
6x120	120		
6x140	140		
6x160	160		
6x180	180		
6x200	200		
6x220	220		

Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
8x40	40	Full	Not available
8x50	50		
8x60	60		
8x70	70	50	12
8x80	80		
8x90	90		
8x100	100		
8x120	120	60	
8x140	140		
8x160	160		
8x180	180		
8x200	200	80	
8x220	220		
8x240	240		
8x280	280		
8x300	300	100	
8x320	320		
8x340	340		

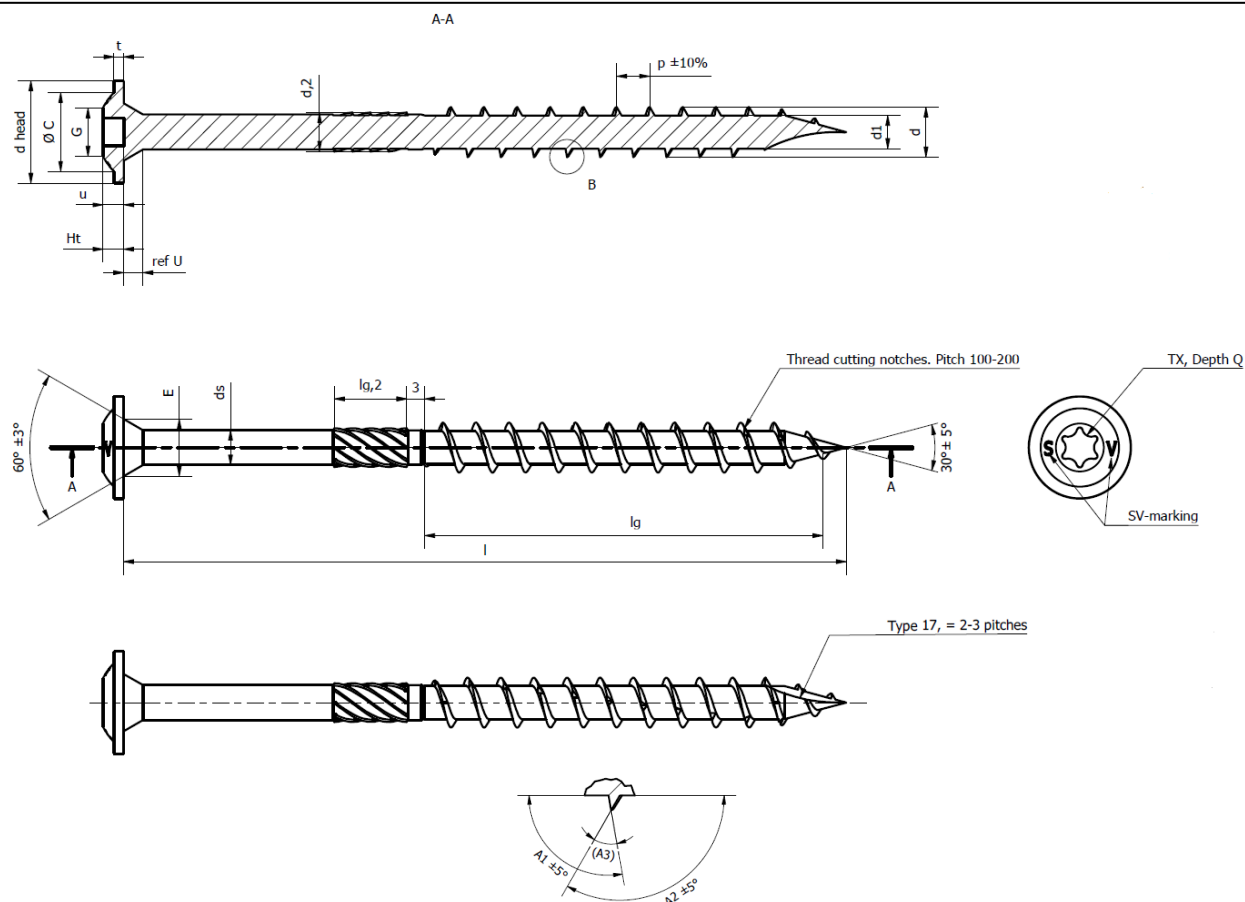
Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
10x40	40	Full	Not available
10x50	50		
10x60	60		
10x70	70	60	12
10x80	80		
10x100	100	80	
10x120	120		
10x140	140		
10x160	160		
10x180	180	100	
10x200	200		
10x220	220		
10x240	240		

Construction screws ET-T, HF(HEX), W(WAF)
Woodscrews ESSDRIVE

ESSVE

Annex A (4/15)

A5: Construction screws W(WAF), ø 6, 8, 10 mm (Austenitic stainless steel)



Size [mm]	A1 [°]	A2 [°]	A3 [°]	d head [mm]	C [mm]	d [mm]	d,2 [mm]	d,1 [mm]	ds [mm]	F [mm]	Ht [mm]	p [mm]	u [mm]
6	110	115	45	14.0	11.0	6.0	4.8	3.8	4.3	7.5	2.9	4.5	2.7
8	100	120	40	17.0	13.0	8.0	6.5	5.3	5.8	10.0	3.6	5.5	3.3
10	100	120	40	21.0	17.0	10.0	7.8	6.3	7.0	12.0	4.0	6.6	3.6

Size [mm]	t [mm]	TX [mm]	U [mm]	G [mm]
6	1.4	TX30	2.5	6.4
8	1.8	TX40	3.0	8.0
10	2.0	TX40	4.0	8.0

Size [mm]	I [mm]	lg [mm]	lg,2 [mm]
6x70	70	50	NA
6x80	80		12
6x90	90		
6x100	100		
6x120	120	70	

Size [mm]	I [mm]	lg [mm]	lg,2 [mm]
8x40	40	Full	NA
8x50	50		
8x60	60		
8x70	70		
8x80	80	50	12
8x90	90		
8x100	100		
8x120	120		
8x140	140	80	
8x150	160		

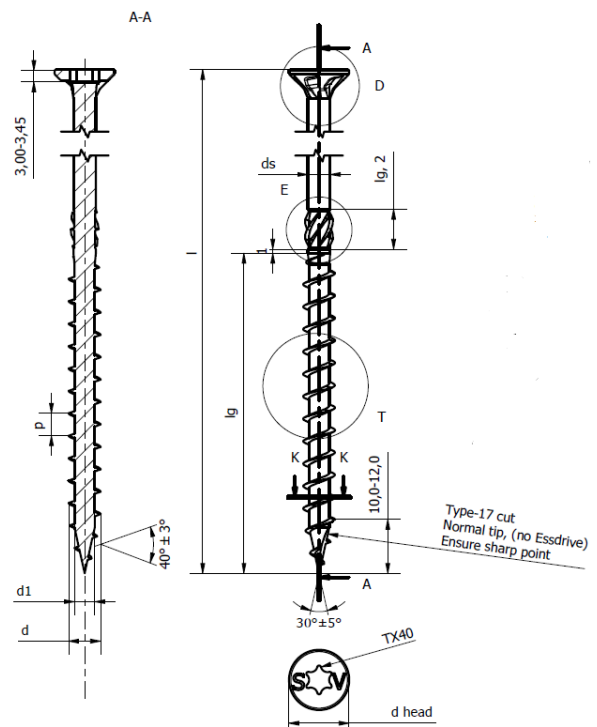
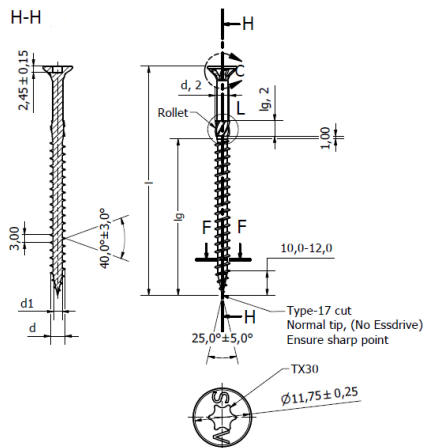
Size [mm]	I [mm]	lg [mm]	lg,2 [mm]
10x40	40	Full	NA
10x50	50		
10x60	60		
10x70	70		
10x80	80	70	12
10x90	90		
10x100	100		
10x120	120		
10x140	140	90	
10x150	160		

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (5/15)

A6: Wood screws ESSDRIVE, ø 6, 8 mm (EZP, CorrSeal)



Size [mm]	l [mm]	lg [mm]	lg,2 [mm]	d,2 [mm]
6x40	40	24	NA	NA
6x50	50	30		
6x60	60	36		
6x70	70	42		
6x80	80	42	6	4.7
6x90	90	42		
6x100	100	52		
6x110	110	62		
6x120	120	72		
6x130	130	72		
6x140	140	72		
6x150	150	72		
6x160	160	72		
6x180	180	72		
6x200	200	72		
6x220	220	72		
6x240	240	72		

d head	11.7 mm
d	6.0 mm
d1	3.8 mm
ds	4.2 mm
p	3.0 mm

Size [mm]	l [mm]	lg [mm]	lg,2 [mm]	d,2 [mm]
8x80	80	48	80	12
8x100	100	60		
8x120	120	60		
8x140	140	60		
8x160	160	60		
8x200	200	60		
8x220	220	60		
8x240	240	60		
8x250	250	60		
8x260	260	60		
8x280	280	60		
8x300	300	60		

d head	15.0 mm
d	8.0 mm
d1	5.4 mm
ds	5.8 mm
p	5.6 mm

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (6/15)

A7: Characteristic yield moment and plastic bending angle

Table A7: Characteristic yield moment.

Screw type	d [mm]	$M_{y,k}$ [Nmm]	Steel grade	Coating type
ET-T	6.5	8 800	Hardened carbon steel	CorrSeal
	8.2	28 300		
HF(HEX) W (WAF)	6	11 900	Hardened carbon steel	EZP CorrSeal
	8	25 500		
	10	36 600		
W(WAF)	6	6 300	Austenitic stainless steel A4 (SAE 316)	
	8	11 600		
	10	19 800		
ESSDRIVE	6	7 300	Hardened carbon steel	EZP, CorrSeal
	8	19 700		

Plastic bending angle for all types of screws: $> 45^\circ$.

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (7/15)

A8: Characteristic withdrawal parameter

Table A8_1: Characteristic withdrawal parameter $f_{ax,k}$ (solid timber ($\geq$ C24), glulam ($\geq$ GL 24), cross laminated timber, $\rho_k \geq 350 \text{ kg/m}^3$), perpendicular / parallel to grain.

Screw type	d [mm]	$f_{ax,k} [\text{N/mm}^2]$ perpendicular	$f_{ax,k} [\text{N/mm}^2]$ parallel	Coating type
ET-T	6.5	17.3	8.9*	CorrSeal
	8.2	15.3	7.8*	
HF(HEX) W(WAF)	6	10.9	/	EZP, CorrSeal
	8	12.5	/	
	10	10.0	/	
W(WAF)	6	16.1	12.3	Austenitic stainless steel A4 (SAE 316)
	8	15.5	11.3	
	10	14.1	10.3	
ESSDRIVE	6	14.6	/	EZP, CorrSeal
	8	11.2	/	

* informative, calculation based on 10 specimens.

Table A8_2: Characteristic withdrawal parameter $f_{ax,k}$ (solid timber ($\geq$ C24), glulam ($\geq$ GL 24), cross laminated timber, $\rho_k \geq 350 \text{ kg/m}^3$), $\alpha = 60^\circ$.

Screw type	d [mm]	$f_{ax,k} [\text{N/mm}^2]$	Coating type
ET-T	6.5	15.1	CorrSeal
	8.2	15.5	

For angles α between screw axis and grain direction $15^\circ \leq \alpha < 45^\circ$ the characteristic withdrawal capacity $F_{ax,\alpha,Rk}$ should multiply by factor k_{ax} :

$$k_{ax} = 0.3 + \frac{0.7 \cdot \alpha}{45^\circ}$$

Characteristic withdrawal capacity of connections with axially loaded screws shall be calculated as:

$$F_{ax,\alpha,Rk} = k_{ax} \cdot n_{ef} \cdot f_{ax,90,k} \cdot d \cdot l_{ef} \cdot \left(\frac{\rho_k}{350} \right)^{0.8}$$

k_{ax} factor to consider the influence of the angle between screw axis and grain direction and the long - term behaviour ($k_{ax} = 1$ for $45^\circ \leq \alpha \leq 90^\circ$)

n_{ef} effective number of screws according to EN 1995-1-1

$f_{ax,90,k}$ short-term characteristic withdrawal parameter for an angle α between screw axis and grain direction of 90° in N/mm^2

d outer thread diameter of the screw in mm

l_{ef} penetration length of the threaded part of the screw in the timber member in mm

ρ_k characteristic density of the timber member in kg/m^3

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (8/15)

A9: Characteristic head pull-through parameter

Table A9_1: Characteristic head pull-through parameter $f_{head,k}$ (solid timber ($\geq$ C24), glulam ($\geq$ GL 24), cross laminated timber, $\rho_k \geq 350$ kg/m³).

Screw type	d [mm]	d head [mm]	$f_{head,k}$ [N/mm ²]	Coating type
ET-T	6.5	8	NPA	CorrSeal
	8.2	10	NPA	
HF(HEX)	6	13	17.1	CorrSeal
	8	15	16.6	
	10	18	19.7	
W(WAF)	6	15.3	16.3	EZP, CorrSeal
	8	22	12.6	
	10	25	15.5	
W(WAF)	6	14	24.7	Austenitic stainless steel A4 (SAE 316)
	8	17	24.5	
	10	21	20.8	
ESSDRIVE	6	11.7	17.7	EZP, CorrSeal
	8	15	17.6	

Table A9_2: Other timber and timber based products.

Material	$f_{head,k}$ [N/mm ²]
Timber and timber based products, $\rho_k \geq 350$ kg/m ³ , thickness ≥ 20 mm: – Plywood according to EN 636 and EN 13986, – Oriented strand boards, OSB according to EN 300 and EN 13986, – Solid wood panels according to EN 13353 and EN 13986, – Particleboards according to EN 312 and EN 13986, – Cement-bonded particle boards according to EN 634-2 and EN 13986, – Fibreboards according to EN 622-2, EN 622-3 and EN 13986.	10
Wood based panels, thickness less than 12 mm, minimum thicknesses of the wood based panels: $1.2 \cdot$ (outer screw thread diameter) and minimum board thickness: – Plywood and fibreboards (hardboards and medium boards): 6 mm, – Oriented strand boards, particleboards, cement-bonded particle board: 8 mm, – Solid wood panels: 12 mm.	8 $F_{ax,Rk,max.} = 400$ N

Characteristic head pull-through capacity (EN 1995-1-1):

$$F_{ax,\alpha,Rk} = n_{ef} \cdot f_{head,k} \cdot d_h^2 \cdot \left(\frac{\rho_k}{350}\right)^{0.8}$$

n_{ef} effective number of screws according to EN 1995-1-1

f_{head} characteristic head pull-through parameter in N/mm²

d_h diameter of the screw head in mm

ρ_k characteristic density of the timber member in kg/m³

REMARK: Conversion of the characteristic head pull-through parameter $f_{head,k}^{EN 1383}$ in the characteristic head pull-through strength (prEN 1995-1-1):

$$f_{head,k} = \frac{4}{\pi} f_{head,k}^{EN 1383}$$

Construction screws ET-T, HF(HEX), W(WAF) Wood screws ESSDRIVE	Annex A (9/15)
	

A10: Characteristic tensile strength and Characteristic yield strength

Table A10_1: Characteristic tensile strength.

Screw type	d [mm]	$f_{tens,k}$ [kN]	Steel grade	Coating type
ET-T	6.5	14.8	Hardened carbon steel	CorrSeal
	8.2	30.1		
HF(HEX)	6	13.3	Hardened carbon steel	CorrSeal
	8	24.6		
	10	33.6		
W(WAF)	6	13.3	Hardened carbon steel	EZP, CorrSeal
	8	24.6		
	10	33.6		
W(WAF)	6	7.7	Austenitic stainless steel A4 (SAE 316)	
	8	15.7		
	10	21.9		
ESSDRIVE	6	13.5	Hardened carbon steel	EZP, CorrSeal
	8	28.7		

Table A10_2: Characteristic yield strength.

Screw type	d [mm]	$f_{y,k}$ [N/mm ²]	Steel grade
ET-T	6.5	≥ 900	Hardened carbon steel
	8.2		
HF(HEX)	6	≥ 900	Hardened carbon steel
	8		
	10		
W(WAF)	6	≥ 900	Hardened carbon steel
	8		
	10		
W(WAF)	6	≥ 380	Austenitic stainless steel A4 (SAE 316)
	8		
	10		
ESSDRIVE	6	≥ 900	Hardened carbon steel
	8		

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (10/15)

A11: Characteristic torsional strength / Insertion moment

Table A11: Characteristic torsional strength $f_{tor,k}$.

Screw type	d [mm]	$f_{tor,k}$ [Nm]	Steel grade	Coating type
ET-T	6.5	11.3	Hardened carbon steel	CorrSeal
	8.2	34.5		
HF(HEX)	6	12.4	Hardened carbon steel	CorrSeal
	8	28.2		
	10	46.3		
W(WAF)	6	12.4	Hardened carbon steel	EZP, CorrSeal
	8	28.2		
	10	46.3		
W(WAF)	6	8.7	Austenitic stainless steel A4 (SAE 316)	
	8	19.6		
	10	33.3		
ESSDRIVE	6	10.4	Hardened carbon steel	EZP, CorrSeal
	8	29.7		

Ratio of the characteristic torsional strength to the mean insertion moment for all type of screws:

$$\frac{f_{tor,k}}{R_{tor,mean}} \geq 1.5$$

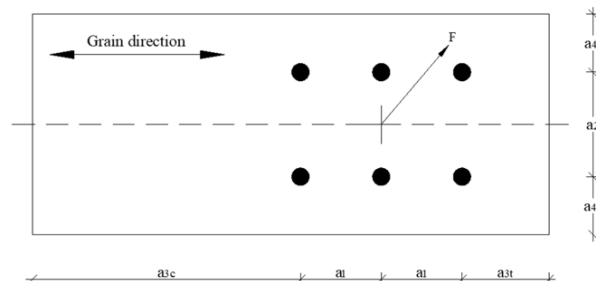
Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE

ESSVE

Annex A (11/15)

A12: Spacing, end and edge distances of the screws

For screws in solid wood (strength classes C16 up to C40 and D30 up to D70 according to EN 14081-1) and glued laminated timber (strength class GL24 up to GL36 according to EN 14080) the spacing, end and edge distances and the minimum thickness of the timber material are to be determined according to EN 1995-1-1, Clause 8.3.1.2 and Table 8.2 (Figure A12).



- (1) loaded end
- (2) unloaded end
- (3) loaded edge
- (4) unloaded edge
- α angle between the force and grain direction

Figure A12: Spacing, end and edge distances of the screws.

For screws ET-T, $d = 6.5$ mm, the minimum spacing, end and edge distances of the screws are given in Table A12.

Table A12: Spacing, end and edge distances for the screws ET-T, $d = 6.5$ mm.

Screw type	a_1	a_2	$a_{3,c}$	$a_{3,t}$	$a_{4,c}$	$a_{4,t}$
ET-T	$6d$	$3d$	$8d$	$8d$	$3d$	$3d$
6.5 mm	40 mm	20 mm	50 mm	50 mm	20 mm	20 mm

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



Annex A (12/15)

A13_1: Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades

A13.1 General

ESSVE Construction screws ET-T, HF(HEX), W(WAF), Wood screws ESSDRIVE may also be used for fixation of various thermal insulation materials in roof and wall structures. Length of the screws has to be sufficient to ensure the lower thread is fully embedded in base load bearing structure / elements (Figure A13).

Max. spacing between the screws is limited to $e_s = 1.75 \text{ m}$.

The angle between grain direction and screw axis should be $30^\circ \leq \alpha \leq 90^\circ$.

The thickness of insulation material is $h_{TI, \max, \alpha=90^\circ} = 250 \text{ mm}$ ($h_{TI, \max, \alpha=60^\circ} = 205 \text{ mm}$). The minimum compressive stress of the thermal insulation material at 10 % deformation shall be $\sigma_{TI, C, 10\%, \min} = 0.05 \text{ N/mm}^2$ (EN 826:2013).

Minimum counter battens dimensions are presented in Table A13. The minimum strength class of timber elements is C24 (EN 338). Alternative board materials, listed in Chapter 2, can be used as alternative.

Table A13: Minimum counter battens dimensions.

Screw diameter [mm]	Batten width ($2 \cdot (4 \cdot d)$) [mm]	Batten thickness ($4 \cdot d$) [mm]
6.0	48	24
6.5	52	26
8.0	64	32
8.2	65	33
10.0	80	40

Base load bearing structure / elements (rafters, studs, panels, etc.) can be made of solid timber (EN 14081-1) (min. C24), glue laminated timber (EN 14080), (min. GL 24), cross laminated timber or LVL Laminated veneer lumber (EN 14374) / Glue laminated timber made of hardwood LVL (ETA according to EAD). Min. width of timber / timber composites is limited to 60 mm.

Only the mechanical resistance is subject of this Annex, building physic performance is not subject of this assessment.

Basic mechanical model of counter battens, thermal insulation material and timber based base material (rafter, etc.) is a beam on elastic foundation: counter battens present the beam; thermal insulation installed above base material presents the elastic foundation.

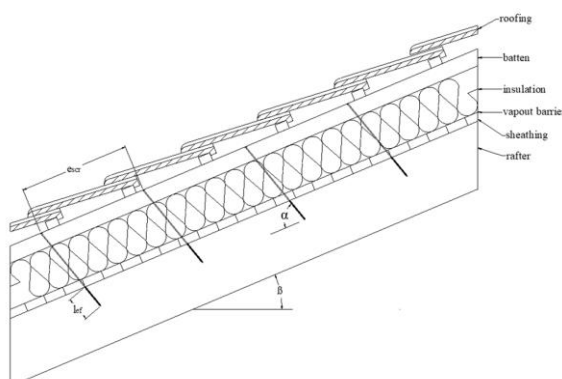


Figure A13: Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades.

Construction screws ET-T, HF(HEX), W(WAF)

Wood screws ESSDRIVE

ESSVE

Annex A (13/15)

A13_2: Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades

DESIGN OF COUNTER BATTNES:

Design shall follow EN 1995-1-1.

Friction forces shall not be taken into consideration in the design of the axial capacity of the screws.

a.) Bending:

$$\text{Bending moment: } M_k = \frac{(F_{b,k} + F_{s,k})}{4} \cdot l_{ch}; l_{ch} = \sqrt[4]{\frac{4EI}{b_{ef} \cdot K}}$$

$F_{b,k}$ characteristic point loads perpendicular to the battens (dead, wind, snow, etc.)

$F_{s,k}$ characteristic loads perpendicular to the battens (screw load application)

l_{ch} characteristic length

EI counter batten bending stiffness: $I = bh^3/12$

b_{ef} effective width: $b_{ef} = b + h_{TI}/2$

h_{TI} thickness of thermal insulation material

K coefficient of subgrade reaction: $K = E_{TI}/h_{TI}$

b, h width and height of counter batten (net dimensions)

$$\frac{\sigma_{m,d}}{f_{m,d}} = \frac{M_d}{W \cdot f_{m,d}} \leq 1; W = \frac{bh^2}{6}$$

b.) Shear:

$$\text{Shear force: } V = \frac{(F_b + F_s)}{2}$$

$$\frac{\tau_d}{f_{v,d}} = \frac{V_d}{A_s \cdot f_{m,d}} \leq 1; A_s = \frac{A}{1.5} = \frac{b \cdot h}{1.5}$$

DESIGN OF THERMAL INSULATION MATERIAL (in compression):

$$\sigma_k = \frac{1.5 \cdot F_{b,k} + F_{s,k}}{2 \cdot l_{ch} \cdot b} \leq 1.1 \cdot \sigma_{TI,C,10\%}$$

$\sigma_{TI,C,10\%}$ compressive stresses in thermal insulation at 10 % deformation calculated according to EN 826:2013

DESIGN OF SCREWS (parallel inclined screws):

Axial tension force in screw:

$$T_{s,k} = \frac{R_{s,k}}{\cos \alpha}; R_{s,k} = (G_{s,k} + S_{s,k}) \cdot \sin \beta$$

Construction screws ET-T, HF(HEX), W(WAF)

Wood screws ESSDRIVE

ESSVE

Annex A (14/15)

A13_3: Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades

Axial withdrawal capacity of screw (min value of design value of the axial withdrawal capacity of the threaded part of the screw, the head pull-through capacity of the screw and the tensile capacity of the screw according to Annexes A8 - A10):

$$F_{ax,\alpha,Rd} = \min \left\{ \begin{array}{l} f_{ax,d} \cdot d \cdot l_{ef} \cdot k_1 \cdot k_2 \cdot \left(\frac{\rho_k}{350} \right)^{0.8} \\ f_{head,d} \cdot d_h^2 \cdot \left(\frac{\rho_k}{350} \right)^{0.8} \\ f_{tens,d} \end{array} \right.$$

- $f_{ax,d}$ design value of the axial withdrawal parameter of screw
 d thread diameter of screw
 l_{ef} effective penetration length in base material (rafter) ($\leq 6 \cdot d$)
 k_{ax} factor to consider the influence of the angle between screw axis and grain direction and the long-term behaviour ($k_{ax} = 1$ for $45^\circ \leq \alpha^\circ \leq 90^\circ$; $k_{ax} = 0.3 + (0.7 \cdot \alpha^\circ / 45^\circ)$ for $45^\circ \leq \alpha^\circ \leq 90^\circ$)
 k_1 reduction factor – dimensions of thermal insulation material ($k_1 = \min \{1; 200 / h_{TI} [\text{mm}]\}$)
 k_2 reduction factor – stresses in thermal insulation material ($k_2 = \min \{1; \sigma_{TI,C,10\%} [\text{N/mm}] / 0.12\}$)
 ρ_k characteristic density of base material (rafter)
 $f_{head,d}$ design value of the head pull-through capacity of the screw
 d_h head diameter
 $f_{tens,d}$ design tensile strength of the screw

Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE

ESSVE

Annex A (15/15)