

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Konstruktionsskruv ET-T, Corrseal C4
Konstruktionsskruv-HF (HEX), Corrseal C4
Konstruktionsskruv-W (WAF) med stort huvud, Corrseal C4
Konstruktionsskruv-W (WAF) med stort huvud, FZB
Konstruktionsskruv-W (WAF) med stort vitlackat huvud, FZB
Träskruv WAF med stort huvud, rostfri syrafast A4
Träskruv ESSDRIVE försänkt huvud, Corrseal
Träskruv ESSDRIVE försänkt huvud, FZB
Småpack Träskruv ESSDRIVE försänkt huvud, Corrseal
Småpack Träskruv ESSDRIVE försänkt huvud, FZB
Småpack Konstruktionsskruv-W (WAF), stort huvud, Corrseal
Småpack Konstruktionsskruv-W (WAF) med stort huvud, rostfri syrafast A4

AVSEDD ANVÄNDNING

Produkterna är avsedda för förband i träkonstruktioner enligt ETA-23/0747 (version 2025-09-30) och EAD 130118-01-0603 (utgåva februari 2019).

TILLVERKARE

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SYSTEM FÖR BEDÖMNING OCH FORTLÖPANDE KONTROLL AV PRESTANDA

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ANMÄLT ORGAN

ZAG (TAB)

Konstruktionsskruv ET-T, Corrseal C4

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Konstruktionskrav ET-T, Corrseal C4

Angiven prestanda

Väsentliga egenskaper	Prestanda		Harmoniserad teknisk specifikation
	6,5 mm	8,2 mm	
Diameter	ETA-23/0747, Annex A2	ETA-23/0747, Annex A2	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	8800	28300	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,3	15,3	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	NPD	NPD	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	14,8	30,1	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	11,3	34,5	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	ETA-23/0747, Annex A13	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	Class A1 [EN 13501-1]	ETA-23/0747

Konstruktionsskruv ET-T, Corraseal C4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
118100	7317761151531	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X65 100ST
118102	7317761151548	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X90 100ST
118104	7317761151555	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X130 100ST
118106	7317761151562	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X160 50ST
118108	7317761151579	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X190 50ST
118110	7317761151586	KONSTRUKTIONSSKRUV ET-T TX30 CYL CORRSEAL 6,5X220 50ST
118114	7317761151609	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X130 50ST
118116	7317761151616	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X160 50ST
118118	7317761151623	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X190 50ST
118120	7317761151630	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X220 50ST
118122	7317761151647	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X245 50ST
118124	7317761151654	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X275 50ST
118126	7317761151661	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X300 50ST
118128	7317761151678	KONSTRUKTIONSSKRUV ET-T TX40 CYL CORRSEAL 8,2X330 50ST

Konstruktionsskruv-HF (HEX), Corrseal C4

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Konstruktionskrav-HF (HEX), Corrseal C4

Angiven prestanda

Väsentliga egenskaper	Prestanda			Harmoniserad teknisk specifikation
	6 mm	8 mm	10 mm	
Dimensioner	ETA-23/0747, Annex A3	ETA-23/0747, Annex A3	ETA-23/0747, Annex A3	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Böjvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	10,9	12,5	10	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	17,1	16,6	19,7	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480$ kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

PRESTANDADECLARATION

DoP-ETA-230747 [SV]

Konstruktionsskruv-HF (HEX), Corrseal C4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
113403	7317761901907	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 6,0X50 100ST
113408	7317761901914	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 6,0X70 100ST
113411	7317761901921	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 6,0X90 100ST
113415	7317761901938	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 6,0X120 100ST
113417	7317761901945	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 6,0X140 50ST
113431	7317761901952	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X50 50ST
113435	7317761901969	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X70 50ST
113439	7317761901976	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X90 50ST
113443	7317761901983	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X120 50ST
113451	7317761901990	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X160 50ST
113453	7317761902003	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X200 25ST
113455	7317761902010	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 8,0X240 25ST
113461	7317761902027	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X50 50ST
113466	7317761902034	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X80 50ST
113467	7317761902041	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X100 25ST
113469	7317761902058	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X120 25ST
113473	7317761902065	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X160 25ST
113477	7317761902072	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X200 25ST
113481	7317761902089	TRÄSKRUV KONSTRUKTION-HF CORRSEAL 10,0X240 25ST

Konstruktionsskruv-W (WAF) med stort huvud, Corrseal C4

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	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	5,4 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	
10 mm	40 mm	25 mm	6,6 mm	35 mm	
10 mm	50 mm	25 mm	6,6 mm	45 mm	

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Konstruktionsskruv-W (WAF) med stort huvud, Corrseal C4

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Konstruktionsskruv-W (WAF) med stort huvud, Corrseal C4

Angiven prestanda

Väsentliga egenskaper	Prestanda			Harmoniserad teknisk specifikation
	6 mm	8 mm	10 mm	
Dimensioner	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Böjvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	10,9	12,5	10	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	16,3	12,6	15,5	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

Konstruktionsskruv-W (WAF) med stort huvud, Corraseal C4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
10003342	7317761939429	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X40 100ST
113103	7317761905066	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X50 100ST
9550113103	7317761955917	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X50
113105	7317761905073	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X60 100ST
113107	7317761905080	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X70 100ST
113109	7317761905097	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X80 100ST
9550113109	7317761955931	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X80
113111	7317761905103	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X90 100ST
113113	7317761905110	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X100 100ST
113115	7317761905127	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X120 50ST
113117	7317761905134	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X140 50ST
113119	7317761905141	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X160 50ST
113121	7317761905158	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X180 50ST
113123	7317761905165	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X200 50ST
113127	7317761905172	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 6,0X220 50ST
113129	7317761905189	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X40 50ST
113131	7317761905196	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X50 50ST
113133	7317761905202	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X60 50ST
113135	7317761905219	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X70 50ST
113137	7317761905226	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X80 50ST
113139	7317761905233	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X90 50ST
113141	7317761905240	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X100 50ST
113143	7317761905257	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X120 50ST
113147	7317761905264	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X140 50ST
113151	7317761905271	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X160 50ST
113152	7317761905288	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X180 25ST
113153	7317761905295	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X200 25ST
113154	7317761905301	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X220 20ST
113155	7317761905318	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X240 20ST
113097	7317761905325	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X280 25ST
113157	7317761905332	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X300 25ST
113099	7317761905349	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X320 25ST

Konstruktionsskruv-W (WAF) med stort huvud, Corraseal C4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
113159	7317761905356	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X40 50ST
113161	7317761905363	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X50 50ST
113163	7317761905370	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X60 50ST
113165	7317761905387	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X70 50ST
113166	7317761905394	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X80 50ST
113167	7317761905400	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X100 25ST
113169	7317761905417	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X120 25ST
113171	7317761905424	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X140 25ST
113173	7317761905431	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X160 25ST
113175	7317761905448	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X180 25ST
113177	7317761905455	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X200 25ST
113179	7317761905462	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X220 20ST
113181	7317761905479	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 10,0X240 20ST

Konstruktionsskruv-W (WAF) med stort huvud, FZB

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Konstruktionsskruv-W (WAF) med stort huvud, FZB

Angiven prestanda

Väsentliga egenskaper	Prestanda			Harmoniserad teknisk specifikation
	6 mm	8 mm	10 mm	
Dimensioner	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	11900	25500	36600	ETA-23/0747
Böjvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	10,9	12,5	10	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	16,3	12,6	15,5	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,3	24,6	33,6	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	900	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	12,4	28,2	46,3	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480$ kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 2 enligt EN 1995-1-1	Klimatklass 2 enligt EN 1995-1-1	Klimatklass 2 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

PRESTANDADECLARATION

DoP-ETA-230747 [SV]

Konstruktionsskruv-W (WAF) med stort huvud, FZB

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
113203	7317761904519	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X50 100ST
113205	7317761904526	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X60 100ST
113209	7317761904533	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X80 100ST
113211	7317761904540	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X90 100ST
113213	7317761904557	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X100 100ST
113215	7317761904564	TRÄKONSTRUKTIONSSKRUV WAF FZB 6,0X120 50ST
113217	7317761904571	TRÄKONSTRUKTIONSSKRUV WAF FZB6,0X140 50ST
113235	7317761904588	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X70 50ST
113237	7317761904595	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X80 50ST
113239	7317761904601	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X90 50ST
113241	7317761904618	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X100 50ST
113243	7317761904625	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X120 50ST
113247	7317761904632	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X140 50ST
113251	7317761904649	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X160 50ST
113252	7317761904656	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X180 25ST
113253	7317761904663	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X200 25ST
113255	7317761904670	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X240 25ST
113256	7317761904687	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X280 25ST
113257	7317761904694	TRÄKONSTRUKTIONSSKRUV WAF FZB 8,0X320 25ST
113266	7317761904700	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X80 50ST
113267	7317761904717	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X100 25ST
113269	7317761904724	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X120 25ST
113271	7317761904731	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X140 25ST
113273	7317761904748	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X160 25ST
113275	7317761904755	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X180 25ST
113277	7317761904762	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X200 25ST
113281	7317761904779	TRÄKONSTRUKTIONSSKRUV WAF FZB 10,0X240 20ST

Konstruktionsskruv-W (WAF) med stort vitlackat huvud, FZB**Geometri**

Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd
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

Konstruktionsskruv-W (WAF) med stort vitlackat huvud, FZB

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	6 mm	
Dimensioner	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	11900	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	10,9	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	16,3	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,3	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	12,4	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 2 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 (EN 13501-1)	ETA-23/0747

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Konstruktionsskruv-W (WAF) med stort vitlackat huvud, FZB

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
113204	7317761903147	TRÄKONSTRUKTIONSSKRUV WAF FZB+ VIT RAL9010 6,0X50 100ST
113206	7317761903154	TRÄKONSTRUKTIONSSKRUV WAF FZB+ VIT RAL9010 6,0X60 100ST
113210	7317761903161	TRÄKONSTRUKTIONSSKRUV WAF FZB+ VIT RAL9010 6,0X80 100ST

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Träskruv WAF med stort huvud, rostfri syrafast A4

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	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	

Träskruv WAF med stort huvud, rostfri syrafast A4

Angiven prestanda

Väsentliga egenskaper	Prestanda			Harmoniserad teknisk specifikation
	6 mm	8 mm	10 mm	
Diameter	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	6300	11600	19800	ETA-23/0747
Böjvinkel α [°]	≥ 45°	≥ 45°	≥ 45°	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	16,1	15,5	14,1	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350$ kg/m ³)	24,7	24,5	20,8	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	7,7	15,7	21,9	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	380	380	380	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	8,7	19,6	33,3	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480$ kg/m ³) [Nm]	≥ 1,5	≥ 1,5	≥ 1,5	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	Class A1 (EN 13501-1)	ETA-23/0747

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Träskruv WAF med stort huvud, rostfri syrafast A4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
113306	7317761869603	TRÄSKRUV WAF STORT HUVUD A4 TX30 6,0X70 50ST
113310	7317761869610	TRÄSKRUV WAF STORT HUVUD A4 TX30 6,0X90 50ST
113314	7317761869627	TRÄSKRUV WAF STORT HUVUD A4 TX30 6,0X120 50ST
113325	7317761869634	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X40 50ST
113330	7317761869887	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X70 50ST
113334	7317761869900	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X90 50ST
113338	7317761869924	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X120 25ST
113340	7317761869948	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X150 25ST
113376	7317761869962	TRÄSKRUV WAF STORT HUVUD A4 TX40 10,0X40 50ST
113382	7317761869986	TRÄSKRUV WAF STORT HUVUD A4 TX40 10,0X70 50ST
113357	7317761870043	TRÄSKRUV WAF STORT HUVUD A4 TX40 10,0X90 25ST
113360	7317761870067	TRÄSKRUV WAF STORT HUVUD A4 TX40 10,0X120 25ST
113364	7317761902348	TRÄSKRUV WAF SH RAL7021 MATTE ROSTFRI SYRAFAST A4 10,0X120
113365	7317761902355	TRÄSKRUV WAF SH RAL 9010 MATTE ROSTFRI SYRAFAST A4 10,0X120
113363	7317761870081	TRÄSKRUV WAF STORT HUVUD A4 TX40 10,0X150 25ST

Träskruv ESSDRIVE försänkt huvud, Corrseal

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
6 mm	60 mm	11,7 mm	3,8 mm	36 mm	
6 mm	70 mm	11,7 mm	3,8 mm	43 mm	
6 mm	80 mm	11,7 mm	3,8 mm	43 mm	
6 mm	90 mm	11,7 mm	3,8 mm	43 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	

Träskruv ESSDRIVE försänkt huvud, Cororseal

Angiven prestanda

Väsentliga egenskaper	Prestanda		Harmoniserad teknisk specifikation
	6 mm	8 mm	
Diameter	ETA-23/0747, Annex A5	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	7300	19700	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	11,2	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	17,6	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,5	28,7	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	10,4	29,7	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	Class A1 [EN 13501-1]	ETA-23/0747

PRESTANDADECLARATION

Träskruv ESSDRIVE försänkt huvud, Cororseal

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
137126	7317761847762	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X60 100ST
137127	7317761846383	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X70 100ST
137128	7317761846390	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X80 100ST
137228	7317761847779	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X80 500ST
137130	7317761846406	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X90 100ST
137231	7317761847786	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X90 400ST
137132	7317761846413	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X100 100ST
137233	7317761847793	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X100 400ST
137133	7317761846420	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X110 100ST
137134	7317761846437	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X120 100ST
137235	7317761847809	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X120 350ST
137136	7317761846444	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X140 100ST
137138	7317761847816	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X160 50ST
137140	7317761847823	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X180 50ST
137142	7317761847830	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X220 50ST
10002850	7317761935964	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X80 50ST
10002851	7317761935971	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X100 50ST
10002852	7317761935988	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X120 50ST
10002853	7317761935995	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X140 50ST
10002854	7317761936008	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X160 50ST
10002855	7317761936015	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X180 50ST
10002856	7317761936022	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X200 50ST
10002857	7317761936039	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X240 50ST
10002858	7317761936046	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 8X300 50ST

Träskruv ESSDRIVE försänkt huvud, FZB

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Träskruv ESSDRIVE försänkt huvud, FZB

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	6 mm	
Dimensioner	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	7300	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,5	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	10,4	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 2 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	ETA-23/0747

PRESTANDEDEKLARATION

DoP-ETA-230747 [SV]

Träskruv ESSDRIVE försänkt huvud, FZB

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
136159	7317761848165	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X40 200ST
136140	7317761848172	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X50 200ST
136141	7317761848189	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X60 100ST
136142	7317761848196	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X70 100ST
136143	7317761848202	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X80 100ST
136243	7317761848219	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X80 500ST
436143	7317761848592	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X80 10ST UTG
136160	7317761848226	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X90 100ST
136260	7317761848233	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X90 400ST
136144	7317761848240	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X100 100ST
136244	7317761848257	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X100 400ST
136145	7317761848264	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X110 100ST
136146	7317761848271	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X120 100ST
136246	7317761848288	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X120 350ST
136147	7317761848295	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X130 100ST
136148	7317761848301	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X140 100ST
136149	7317761848318	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X150 100ST

Småpack Träskruv ESSDRIVE försänkt huvud, Corroseal

Geometri

Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd
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	120 mm	11,7 mm	3,8 mm	72 mm

Småpack Träskruv ESSDRIVE försänkt huvud, Corrseal

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	6 mm	
Dimensioner	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	7300	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,5	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	10,4	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	ETA-23/0747

Småpack Träskruv ESSDRIVE försänkt huvud, Corrseal

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
10003762	7317761942962	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X60 10ST
10003763	7317761942979	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X70 10ST
10003764	7317761942986	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X80 10ST
10003765	7317761942993	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X90 10ST
10003766	7317761943006	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X100 10ST
10003767	7317761943013	TRÄSKRUV ESSDRIVE FÖRSÄNKT HUVUD CORRSEAL 6,0X120 10ST

Småpack Träskruv ESSDRIVE försänkt huvud, FZB

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	120 mm	11,7 mm	3,8 mm	72 mm	

Småpack Träskruv ESSDRIVE försänkt huvud, FZB

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	6 mm	
Dimensioner	ETA-23/0747, Annex A5	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	7300	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	14,6	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	17,7	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	13,5	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	10,4	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 2 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	ETA-23/0747

Småpack Träskruv ESSDRIVE försänkt huvud, FZB

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
10003816	7317761943495	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X50 10ST
10003817	7317761943501	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X60 10ST
10003818	7317761943518	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X70 10ST
10003819	7317761943525	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X80 10ST
10003820	7317761943532	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X90 10ST
10003821	7317761943549	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X100 10ST
10003822	7317761943556	TRÄSKRUV ESSDRIVE FÖRSÄNKAT HUVUD FZB 6,0X120 10ST

PRESTANDADECLARATION

DoP-ETA-230747 [SV]

Småpack Konstruktionsskruv-W (WAF), stort huvud, Cororseal

Geometri					
Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd	
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	

Småpack Konstruktionsskruv-W (WAF), stort huvud, Cororseal

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	8 mm	
Dimensioner	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	25500	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	12,5	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	12,6	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	24,6	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	900	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	29,7	ETA-23/0747
Karakteristisk vridstyrka / iskruvningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	ETA-23/0747

Småpack Konstruktionskrav-W (WAF), stort huvud, Corrseal

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
10003718	7317761942528	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X40 4ST
10003729	7317761942634	TRÄSKRUV KONSTRUKTION WAF CORRSEAL TX40 8,0X50 4ST
10003719	7317761942535	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X60 4ST
10003720	7317761942542	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X70 4ST
10003721	7317761942559	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X80 4ST
10003722	7317761942566	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X90 4ST
10003723	7317761942573	TRÄSKRUV KONSTRUKTION WAF CORRSEAL 8,0X100 4ST
10003728	7317761942627	TRÄSKRUV KONSTRUKTION WAF CORRSEAL TX40 8,0X120 4ST

Småpack Konstruktionsskruv-W (WAF) med stort huvud, rostfri syrafast A4**Geometri**

Diameter	Längd	Huvuddiameter	Kärndiameter	Gänglängd
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

Småpack Konstruktionsskruv-W (WAF) med stort huvud, rostfri syrafast A4

Angiven prestanda

Väsentliga egenskaper	Prestanda	Harmoniserad teknisk specifikation
Diameter	8 mm	
Dimensioner	ETA-23/0747, Annex A4	ETA-23/0747
Karakteristiskt flytmoment $M_{y,k}$ [Nmm]	11600	ETA-23/0747
Böjvinkel α [°]	$\geq 45^\circ$	ETA-23/0747
Karakteristisk utdragshållfasthet $f_{ax,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	15,5	ETA-23/0747
Karakteristisk genomdragningshållfasthet $f_{head,k}$ [N/mm ²] ($\rho_k = 350 \text{ kg/m}^3$)	24,5	ETA-23/0747
Karakteristisk draghållfasthet $f_{tens,k}$ [kN]	15,7	ETA-23/0747
Karakteristisk sträckgräns $f_{y,k}$ [N/mm ²]	380	ETA-23/0747
Karakteristisk vridstyrka $f_{tor,k}$ [Nm]	19,6	ETA-23/0747
Karakteristisk vridstyrka / iskrivningsmoment $f_{tor,k}$ [Nm] / $R_{tor,mean}$ ($\rho = 480 \text{ kg/m}^3$) [Nm]	$\geq 1,5$	ETA-23/0747
Inbördes avstånd, änd- och kantavstånd	EN 1995-1-1	ETA-23/0747
Glidmodul K_{ser} [N/mm]	NPD	ETA-23/0747
Beständighet mot korrosion	Klimatklass 3 enligt EN 1995-1-1	ETA-23/0747
Reaktion vid brand	Class A1 [EN 13501-1]	ETA-23/0747

PRESTANDADECLARATION

DoP-ETA-230747 [SV]

Småpack Konstruktionsskruv-W (WAF) med stort huvud, rostfri syrafast A4

Produkttypens unika identifikationskod

Artikelnr.	GTIN	Beskrivning
10003724	7317761942580	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X40 4ST
10003725	7317761942597	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X70 4ST
10003726	7317761942603	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X90 4ST
10003727	7317761942610	TRÄSKRUV WAF STORT HUVUD A4 TX40 8,0X120 4ST

Prestandan för ovanstående produkt överensstämmer med den angivna prestandan. Denna prestandadeklaration har utfärdats i enlighet med förordning (EU) nr 305/2011 på eget ansvar av den tillverkare som anges ovan.

Undertecknat för tillverkaren 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**

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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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-trough 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-through parameter of screws

The values of characteristic head pull-through 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-through 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.

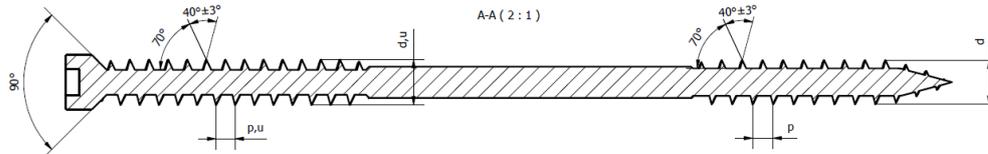
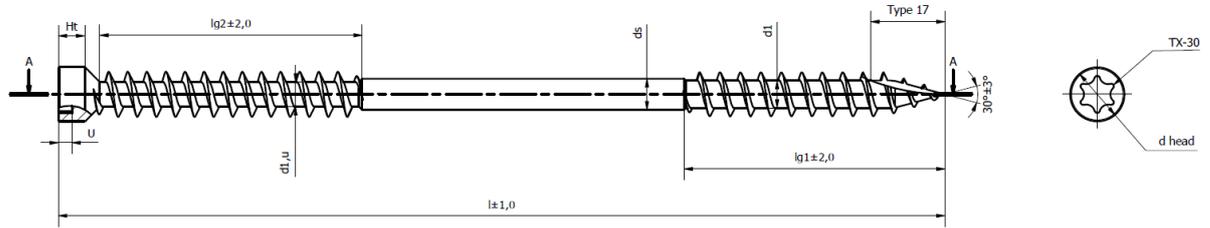
Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE

ESSVE

Annex A (1/15)

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

ET-T, \varnothing 6.5 mm

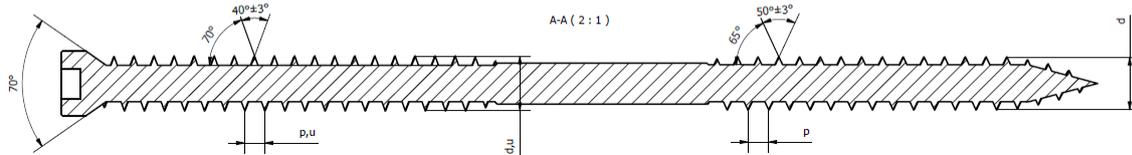
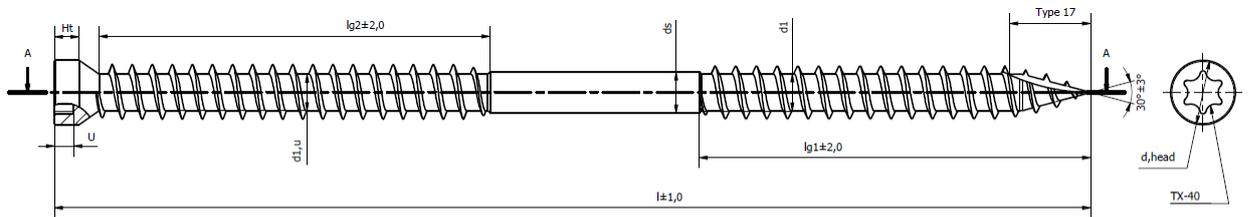


d	6.5 mm
d,u	6.7 mm
d1	4.1 mm
d1,u	3.6 mm
p	3.1 mm
p,u	2.8 mm
d,s	4.6 mm

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

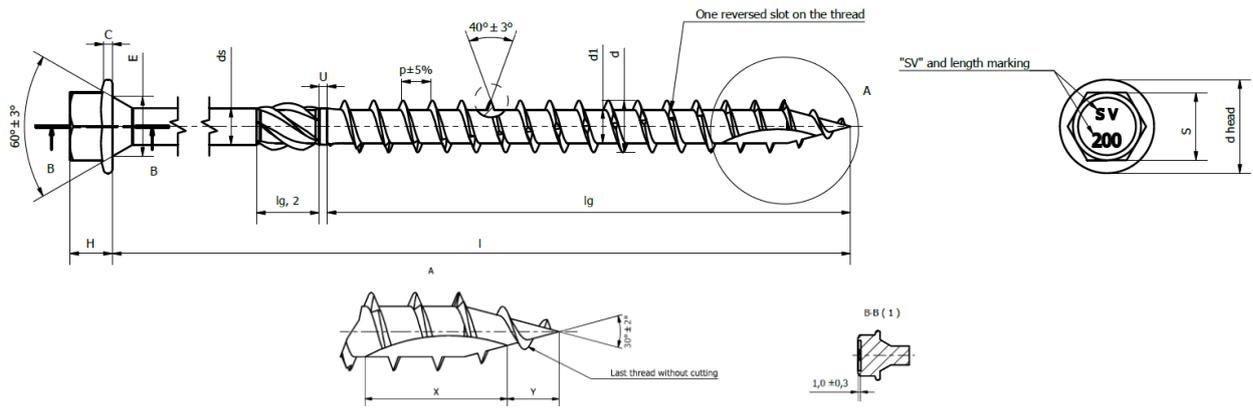
l [mm]	lg1 [mm]	lg2 [mm]	p,u [mm]	Ht [mm]	U [mm]
90	38	38	2.9	3.8	3.0
130	38	38	2.9	3.8	3.0
160	60	60	3.0	3.8	3.0
190	80	80	3.0	3.8	3.0
220	95	95	3.0	3.8	3.0
245	107	107	3.0	4.8	4.0
275	107	107	3.0	4.8	4.0
300	135	135	3.1	4.8	4.0
330	135	135	3.1	4.8	4.0

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



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 ≥ 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	12
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	50	12
8x70	70		
8x80	80		
8x90	90		
8x100	100	60	12
8x120	120		
8x140	140	80	12
8x160	160		
8x180	180	100	12
8x200	200		
8x220	220		
8x240	240		
8x280	280		
8x300	300		
8x320	320		
8x340	340		

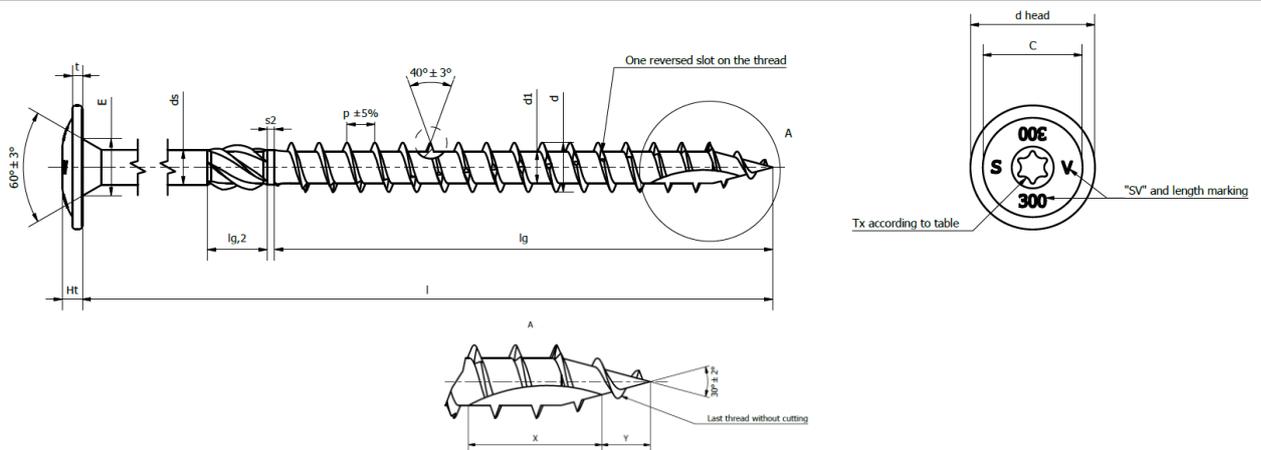
Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
10x40	40	Full	Not available
10x50	50		
10x60	60		
10x70	70	60	12
10x80	80		
10x100	100	80	12
10x120	120		
10x140	140		
10x160	160		
10x180	180	100	12
10x200	200		
10x220	220		
10x240	240		

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	12
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	80	12
8x140	140		
8x160	160		
8x180	180		
8x200	200	100	12
8x220	220		
8x240	240		
8x280	280		
8x300	300		
8x320	320		
8x340	340		

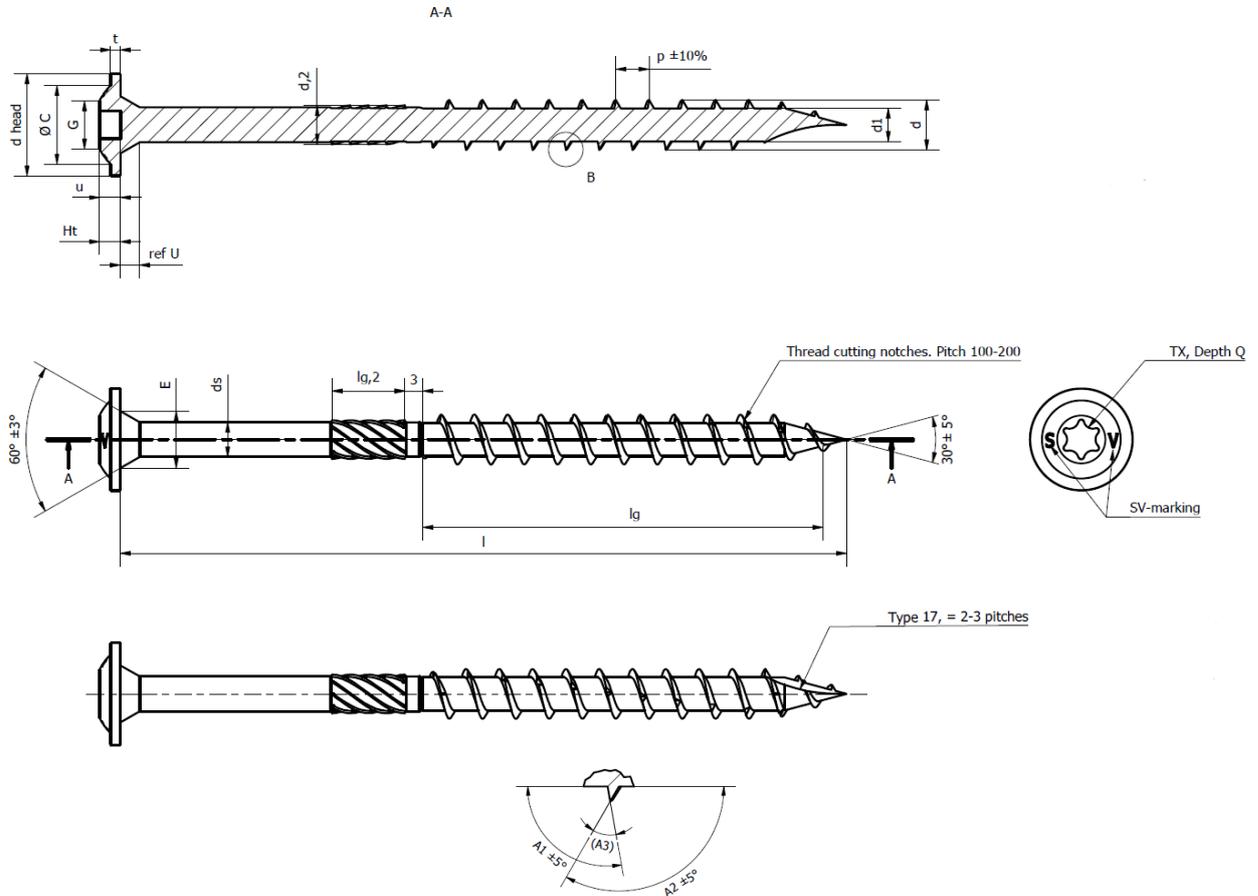
Size [mm]	l [mm]	lg [mm]	lg,2 [mm]
10x40	40	Full	Not available
10x50	50		
10x60	60		
10x70	70	60	12
10x80	80		
10x100	100	80	12
10x120	120		
10x140	140		
10x160	160		
10x180	180	100	12
10x200	200		
10x220	220		
10x240	240		

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



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]	l [mm]	l _g [mm]	l _{g,2} [mm]
6x70	70	50	NA
6x80	80		12
6x90	90		
6x100	100		
6x120	120	70	

Size [mm]	l [mm]	l _g [mm]	l _{g,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		

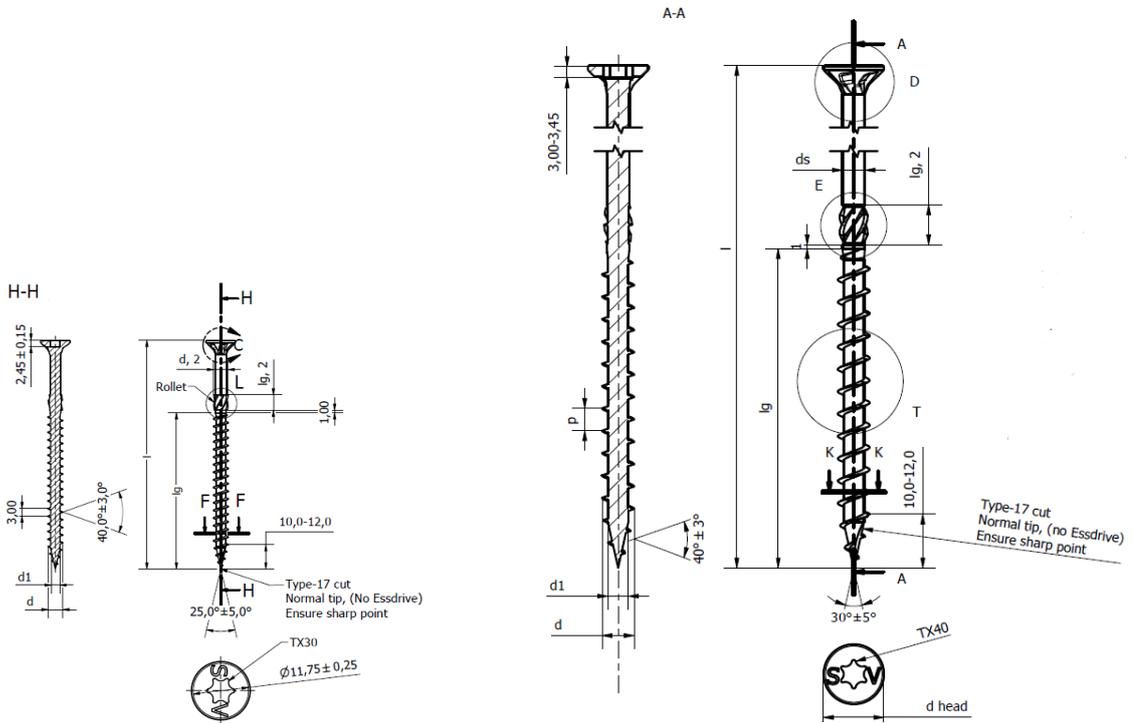
Size [mm]	l [mm]	l _g [mm]	l _{g,2} [mm]
10x40	40	Full	NA
10x50	50		
10x60	60		
10x70	70		
10x80	80	70	12
10x90	90		
10x100	100		
10x120	120		
10x140	140	90	
10x150	160		

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	6	4.7
6x70	70	42		
6x80	80			
6x90	90			
6x100	100	52		
6x110	110	62		
6x120	120	72		
6x130	130			
6x140	140			
6x150	150			
6x160	160			
6x180	180			
6x200	200			
6x220	220			
6x240	240			

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	7.1		
8x140	140			
8x160	160			
8x200	200			
8x220	220			
8x240	240			
8x250	250			
8x260	260			
8x280	280			
8x300	300			

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°.

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]	$f_{ax,k}$ [N/mm ²] perpendicular	$f_{ax,k}$ [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]	$f_{ax,k}$ [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/mm²

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/m³

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]
<p>Timber and timber based products, $\rho_k \geq 350$ kg/m³, thickness ≥ 20 mm:</p> <ul style="list-style-type: none"> - 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
<p>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:</p> <ul style="list-style-type: none"> - 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:

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

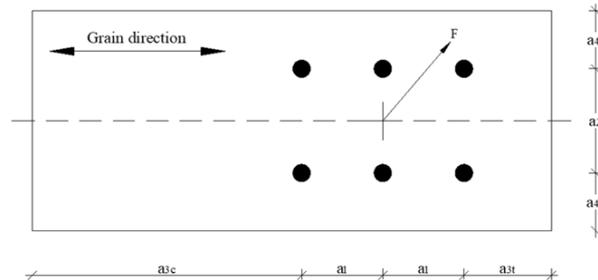
Construction screws ET-T, HF(HEX), W(WAF)
Wood screws ESSDRIVE



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

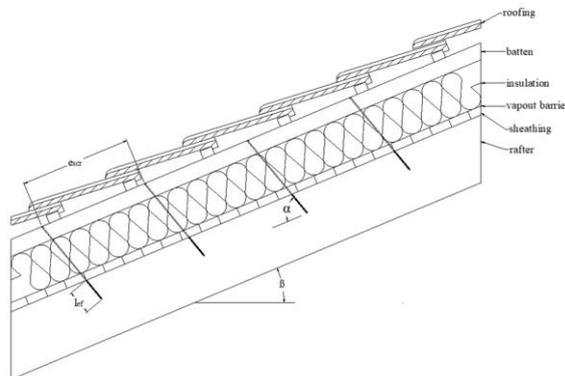


Figure A13: Fastening of battens on thermal insulation systems on top of rafters or on timber members in vertical façades.

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



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



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

Annex A (15/15)

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