



INSTYTUT TECHNIKI BUDOWLANEJ



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European Technical Assessment

**ETA-23/0651
of 26/09/2023**



General Part

Technical Assessment Body issuing the European Technical Assessment

Instytut Techniki Budowlanej

Trade name of the construction product

Eurofast Flat Roof Fasteners

Product family to which the construction product belongs

Fasteners for flexible roof waterproofing systems

Manufacturer

Van Roij Fasteners Europe B.V.
(EUROFAST / EUROFAST GROUP)
Indumastraat 18
5753 RJ Deurne
Netherlands

Manufacturing plants

Van Roij Fasteners Europe B.V. plants

This European Technical Assessment contains

320 pages including 21 Annexes which form an integral part of this Assessment

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

European Assessment Document (EAD)
030351-00-0402 "Systems of mechanically fastened flexible roof waterproofing sheets"



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Specific Part

1 Technical description of the product

Eurofast Flat Roof Fasteners are mechanical fasteners comprise a screw, washer, washer with integral sleeve or linear washer. Screws are made of stainless steel or carbon steel protected by ceramic coating Eurofast Coat 15C or Eurofast Coat 30C. Washers (metal pressure plates) and linear washers (termination bars) are made of carbon steel protected by Aluzinc coating. Washers with integrated sleeve (pressure plates with tube) are made of plastic material: polyamide (PA) or polypropylene (PP) with addition of polyethylene (PE).

Eurofast Flat Roof Fasteners are shown in the Annexes to this European Technical Assessment.

The material properties, dimensions and tolerances not indicated in the Annexes shall correspond to the information laid down in the technical information to this European Technical Assessment.

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

Eurofast Flat Roof Fasteners are intended to be used for flexible roof waterproofing systems according to EAD 030351-00-0402. The possible substrates are steel or aluminum sheets, concrete, autoclaved aerated concrete, OSB/3 sheets, chipboards, plywood and timber. The plastic parts of the fasteners should not be exposed to UV and water.

The performance given in Section 3 is only valid if the fasteners are used in compliance with the specifications and conditions given in the Annexes.

The provisions made in this European Technical Assessment are based on an assumed working life of the products of 10 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

Systems of mechanically fastened flexible roof waterproofing membrane according to EAD 030351-00-0402 should be covered by a separate ETA.

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

3.1 Performance of the product

3.1.1 Safety and accessibility in use (BWR 4)

3.1.1.1 Fastener axial loads

Fastener axial loads are given in Annex A.1, A.2, B.1, B.2, C.1, C.2, D.1, D.2, E.1, E.2, F.1, G.1, G.2, H.1, H.2, I.1, I.2, J.1, J.2, K.1, K.2, L.1, L.2, M.1, N.1, N.2, O.1, O.2, P.1, R.1, S.1, T.1 and U.1.

3.1.1.2 Resistance to fastener unwinding

The fasteners are considered to be safe against unwinding. This was evaluated on the basis of the existing field experience of the manufacturer.

3.1.1.3 Mechanical resistance / brittleness of plastic elements

Plastic elements of fasteners are resistant to impact and brittleness, after impact of weight from drop height $\geq 1,0$ m.

3.1.1.4 Resistance to corrosion of metallic elements

All elements made of coated carbon steel, subjected to 15 cycles of action of a humid atmosphere containing 2,0 l SO₂ do not show more than 15% surface corrosion.

3.1.1.5 Mechanical resistance after heat ageing of plastic fasteners

Plastic elements, after heat ageing, are resistant to impact and brittleness, after impact of weight from drop height $\geq 1,0$ m.

3.2 Methods used for the assessment

The assessment has been made in accordance with EAD 030351-00-0402.

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

According to Decision 98/143/EC of the European Commission the system 2+ of assessment and verification of constancy of performance applies (see Annex V to regulation (EU) No 305/2011).

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

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

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

Issued in Warsaw on 26/09/2023 by Instytut Techniki Budowlanej



Anna Panek, MSc
Deputy Director of ITB

Screw / Fastener		Figure Annex	Characteristic loads Annex	Parameters Annex	Assemblies Annex	
Product key	Alternative product keys					
EDS-S-48xLL	ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M	ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M	A.1 (p. 8)	A.1 and A.2 (p. 8, 9)	A.3 (p. 10)	A.4 to A.27
EDS-B-48xLL	ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M	ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M	B.1 (p. 35)	B.1 and B.2 (p. 35, 36)	B.3 (p. 37)	B.4 to B.27
EDS-B-58xLL	ERSS-58xLL-2-T25-30C	-	C.1 (p. 62)	C.1 and C.2 (p. 62, 63)	C.3 (p. 64)	C.4 to C.21
EDS-SRB-48xLL	ERSS-48xLL-2-T25-B	ERSS-48xLL-2-PH2-B	D.1 (p. 83)	D.1 and D.2 (p. 83, 84)	D.3 (p. 85)	D.4 to D.27
EFXHD-67xLL	ERSS-67xLL-2-T25-M	-	E.1 (p. 110)	E.1 and E.2 (p. 110, 111)	E.2 (p. 111)	E.3 to E.18
DFHD-67xLL	ERSS-67xLL-2-PH3-15C	-	F.1 (p. 128)	F.1 (p. 128)	F.2 (p. 129)	F.3 to F.9
EDS-BZT-48xLL / EDS-BGT-48xLL	ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M / ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C	-	G.1 (p. 137)	G.1 and G.2 (p. 137, 138)	G.3 (p. 139)	G.4 to G.14
EDS-BZTHD-48xLL / EDS-BGTHD-48xLL	ERSS-48xLL-3-HWH-15C / ERSS-48xLL-3-HWH-15C-C	-	H.1 (p. 151)	H.1 and H.2 (p. 151; 152)	H.2 (p. 152)	H.3 to H.13
EDS-BZTR-48xLL / EDS-BGTR-48xLL	ERSS-48xLL-2-HWH-B / ERSS-48xLL-2-HWH-B-C	-	I.1 (p. 164)	I.1 and I.2 (p. 164; 165)	I.3 (p. 166)	I.4 to I.14
EDS-H-50xLL	ERWS-50xLL-0-PH2-15C	ERWS-50xLL-0-T25-15C	J.1 (p. 178)	J.1 and J.2 (p. 178, 179)	J.3 (p. 180)	J.4 to J.28
GBS-60xLL	ERAS-60xLL-0-T25-15C	-	K.1 (p. 206)	K.1 and K.2 (p. 206, 207)	K.3 (p. 208)	K.4 to K.20
GBSA2-60xLL	ERAS-60xLL-0-T25-S	-	L.1 (p. 226)	L.1 and L.2 (p. 226; 227)	L.3 (p. 228)	L.4 to L.20
GBS-80xLL	ERAS-80xLL-0-T25-15C	-	M.1 (p. 246)	M.1 (p. 246)	M.2 (p. 247)	M.3 to M.9
EFHD-63xLL	ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M	-	N.1 (p. 255)	N.1 and N.2 (p. 255, 256)	N.3 (p. 257)	N.4 to N.20
EFR-65xLL	ERCS-65xLL-0-T25-15C	-	O.1 (p. 275)	O.1 and O.2 (p. 275, 276)	O.3 (p. 277)	O.4 to O.20
DFCF-63xLL	ERCS-63xLL-0-HWH-15C	-	P.1 (p. 295)	P.1 (p. 295)	P.2 (p. 296)	P.3 to P.8
DFCF-63xLL-S	ERCS-63xLL-0-FH-15C	-	R.1 (p. 303)	R.1 (p. 303)	R.2 (p. 304)	R.3 to R.4
EAS-65xLL	ERCS-65xLL-0-T25-15C-EAS	-	S.1 (p. 307)	S.1 (p. 307)	S.2 (p. 308)	S.3 to S.10
ISPC-50xLL	ECT-50xLL-PA	-	T.1 (p. 317)	T.1 (p. 317)	T.1 (p. 317)	T.2
ISPCA2-50xLL	ECT-S-50xLL-PA	-	U.1 (p. 319)	U.1 (p. 319)	U.1 (p. 319)	U.2
Eurofast Flat Roof Fasteners			Annex Info.1 of European Technical Assessment ETA-23/0651			
Screws / Fasteners						

Screw / Fastener			Substrates				
Product key	Alternative product keys		Steel sheet	Aluminium sheet	Concrete	Autoclaved aerated concrete	OSB/3 Chipboard Plywood Timber
EDS-S-48xLL	ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M	ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M	X				X
EDS-B-48xLL	ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M	ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M	X				X
EDS-B-58xLL	ERSS-58xLL-2-T25-30C		X				X
EDS-SRB-48xLL	ERSS-48xLL-2-T25-B	ERSS-48xLL-2-PH2-B	X	X			X
EFXHD-67xLL	ERSS-67xLL-2-T25-M	-	X				X
DFHD-67xLL	ERSS-67xLL-2-PH3-15C	-	X				X
EDS-BZTHD-48xLL / EDS-BGT-48xLL	ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M / ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C	-	X				X
EDS-BZTHD-48xLL / EDS-BGTHD-48xLL	ERSS-48xLL-3-HWH-15C / ERSS-48xLL-3-HWH-15C-C	-	X				X
EDS-BZTR-48xLL / EDS-BGTR-48xLL	ERSS-48xLL-2-HWH-B / ERSS-48xLL-2-HWH-B-C	-	X	X			X
EDS-H-50xLL	ERWS-50xLL-0-PH2-15C	ERWS-50xLL-0-T25-15C					X
GBS-60xLL	ERAS-60xLL-0-T25-15C	-			X	X	X
GBSA2-60xLL	ERAS-60xLL-0-T25-S	-				X	X
GBS-80xLL	ERAS-80xLL-0-T25-15C	-			X	X	
EFHD-63xLL	ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M	-			X		
EFR-65xLL	ERCS-65xLL-0-T25-15C	-			X		
DFCF-63xLL	ERCS-63xLL-0-HWH-15C	-			X		
DFCF-63xLL-S	ERCS-63xLL-0-FH-15C	-			X		
EAS-65xLL	ERCS-65xLL-0-T25-15C-EAS	-			X		
ISPC-50xLL	ECT-50xLL-PA	-			X		
ISPCA2-50xLL	ECT-S-50xLL-PA	-			X		

Eurofast Flat Roof Fasteners	Annex Info.2 of European Technical Assessment ETA-23/0651
Substrates	

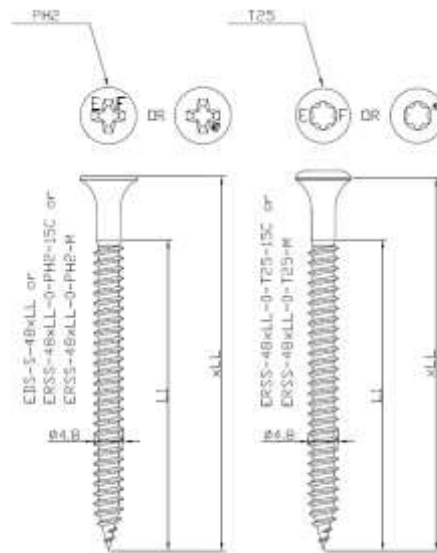
Product keys for metal pressure plates and pressure plates tube supplied as pre-assembled combinations with various screws.									
Product key					Alternative product key				
Metal pressure plates or pressure plates with tube		Screw		Pre-assembled combination	Metal pressure plates or pressure plates with tube		Screw		Pre-assembled combination
TRP-45xLL	+	EDS-S-48xLL	=	TRPS-45	EPT-45xLL-PA	+	ERSS-48xLL-0-PH2-15C	=	EPTSS-XXX-0-45-48-PA
TRP-45xLL	+	EDS-B-48xLL	=	TRPB-45	EPT-45xLL-PA	+	ERSS-48xLL-2-T25-15C	=	EPTSS-XXX-2-45-48-PA
TRP-45xLL	+	EDS-SRB-48xLL	=	TRPSRB-45	EPT-45xLL-PA	+	ERSS-48xLL-2-T25-B	=	EPTSS-XXX-2B-45-48-PA
TRP-45xLL	+	EDS-H-50xLL	=	TRPH-45	EPT-45xLL-PA	+	ERWS-50xLL-0-PH2-15C	=	EPTWS-XXX-0-45-50-PA
TRP-45xLL	+	EAS-65xLL	=	TRPEAS-45	EPT-45xLL-PA	+	ERCS-65xLL-0-T25-15C-EAS	=	EPTCS-XXX-YYY-EAS-0-45-65-PA
BTRP-45xLL	+	EDS-S-48xLL	=	BTRPS-45	EPT-B-45xLL-PA	+	ERSS-48xLL-0-PH2-15C	=	EPTSS-XXX-0-45B-48-PA
BTRP-45xLL	+	EDS-B-48xLL	=	BTRPB-45	EPT-B-45xLL-PA	+	ERSS-48xLL-2-T25-15C	=	EPTSS-XXX-2-45B-48-PA
BTRP-45xLL	+	EDS-SRB-48xLL	=	BTRPSRB-45	EPT-B-45xLL-PA	+	ERSS-48xLL-2-T25-B	=	EPTSS-XXX-2B-45B-48-PA
BTRP-45xLL	+	EDS-H-50xLL	=	BTRPH-45	EPT-B-45xLL-PA	+	ERWS-50xLL-0-PH2-15C	=	EPTWS-XXX-0-45B-50-PA
BTRP-45xLL	+	EAS-65xLL	=	BTRPEAS-45	EPT-B-45xLL-PA	+	ERCS-65xLL-0-T25-15C-EAS	=	EPTCS-XXX-YYY-EAS-0-45B-65-PA
TWP-8040xLL	+	EDS-S-48xLL	=	TWPS-8040	EPT-8040xLL-PA	+	ERSS-48xLL-0-PH2-15C	=	EPTSS-XXX-0-8040-48-PA
TWP-8040xLL	+	EDS-B-48xLL	=	TWPB-8040	EPT-8040xLL-PA	+	ERSS-48xLL-2-T25-15C	=	EPTSS-XXX-2-8040-48-PA
TWP-8040xLL	+	EDS-H-50xLL	=	TWPH-8040	EPT-8040xLL-PA	+	ERWS-50xLL-0-PH2-15C	=	EPTWS-XXX-0-8040-50-PA
TLK-45xLL	+	EDS-S-48xLL	=	TLKS-45	EPT-45xLL-PP	+	ERSS-48xLL-0-PH2-15C	=	EPTSS-XXX-0-45-48-PP
TLK-45xLL	+	EDS-B-48xLL	=	TLKB-45	EPT-45xLL-PP	+	ERSS-48xLL-2-T25-15C	=	EPTSS-XXX-2-45-48-PP
TLK-45xLL	+	EDS-SRB-48xLL	=	TLKSRB-45	EPT-45xLL-PP	+	ERSS-48xLL-2-T25-B	=	EPTSS-XXX-2B-45-48-PP
TLK-45xLL	+	EDS-H-50xLL	=	TLKH-45	EPT-45xLL-PP	+	ERWS-50xLL-0-PH2-15C	=	EPTWS-XXX-0-45-50-PP
TLK-45xLL	+	GBS-60xLL	=	TLKGBS-45	EPT-45xLL-PP	+	ERAS-60xLL-0-T25-15C	=	EPTAS-XXX-0-45-60-PP
TLK-45xLL	+	GBSA2-60xLL	=	TLKGBSA2-45	EPT-45xLL-PP	+	ERAS-60xLL-0-T25-S	=	EPTAS-XXX-0S-45-60-PP
TLK-45xLL	+	EFHD-63xLL	=	TLKEFHD-45	EPT-45xLL-PP	+	ERCS-63xLL-0-T25-15C	=	EPTCS-XXX-0-45-63-PP
TLK-45xLL	+	EFR-65xLL	=	TLKEFR-45	EPT-45xLL-PP	+	ERCS-65xLL-0-T25-15C	=	EPTCS-XXX-0HL-45-65-PP
TLK-45xLL	+	EAS-65xLL	=	TLKEAS-45	EPT-45xLL-PP	+	ERCS-65xLL-0-T25-15C-EAS	=	EPTCS-XXX-YYY-EAS-0-45-65-PP
TLK-75xLL	+	EDS-S-48xLL	=	TLKS-75	EPT-75xLL-PP	+	ERSS-48xLL-0-PH2-15C	=	EPTSS-XXX-0-75-48-PP
TLK-75xLL	+	EDS-B-48xLL	=	TLKB-75	EPT-75xLL-PP	+	ERSS-48xLL-2-T25-15C	=	EPTSS-XXX-2-75-48-PP
TLK-75xLL	+	EDS-SRB-48xLL	=	TLKSRB-75	EPT-75xLL-PP	+	ERSS-48xLL-2-T25-B	=	EPTSS-XXX-2B-75-48-PP
TLK-75xLL	+	EDS-H-50xLL	=	TLKH-75	EPT-75xLL-PP	+	ERWS-50xLL-0-PH2-15C	=	EPTWS-XXX-0-75-50-PP
TLK-75xLL	+	GBS-60xLL	=	TLKGBS-75	EPT-75xLL-PP	+	ERAS-60xLL-0-T25-15C	=	EPTAS-XXX-0-75-60-PP
TLK-75xLL	+	GBSA2-60xLL	=	TLKGBSA2-75	EPT-75xLL-PP	+	ERAS-60xLL-0-T25-S	=	EPTAS-XXX-0S-75-60-PP
TLK-75xLL	+	EFHD-63xLL	=	TLKEFHD-75	EPT-75xLL-PP	+	ERCS-63xLL-0-T25-15C	=	EPTCS-XXX-0-75-63-PP
TLK-75xLL	+	EFR-65xLL	=	TLKEFR-75	EPT-75xLL-PP	+	ERCS-65xLL-0-T25-15C	=	EPTCS-XXX-0HL-75-65-PP
TLK-75xLL	+	EAS-65xLL	=	TLKEAS-75	EPT-75xLL-PP	+	ERCS-65xLL-0-T25-15C-EAS	=	EPTCS-XXX-YYY-EAS-0-75-65-PP
DVP-EF-7005N	+	EDS-H-50xLL	=	CP-PP-H	EPM-70N-5.1-0.5	+	ERWS-50xLL-0-PH2-15C	=	EPMWS-0-70N-50xLL
DVP-EF-4010N3	+	EDS-H-50xLL	=	DAMP-H	EPM-N3-40N-5.85-1.0	+	ERWS-50xLL-0-PH2-15C	=	EPMWS-0-N3-40N-50xLL
-	-	-	-	-	EPM-51N-5.6-0.84	+	ERSS-67xLL-2-PH3-15C	=	EPMSS-2-51N-67xLL

XXX - clamping range for pre-assembled combination

XXX-YYY - min/max clamping range for pre-assembled combination with EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS) screw

Pre-assembled combinations, that are additionally supplied as collated products have extended product key with "C" letter at the end. Example: EPTSS-XXX-0-45-48-PA-C.

<p>Eurofast Flat Roof Fasteners</p>	<p>Annex Info.3 of European Technical Assessment ETA-23/0651</p>
<p>Pre-assembled combinations</p>	



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)						
t [mm]	Steel S320GD*					
	0,60	0,63	0,70	0,75	0,80	0,88
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)	0,94	0,94	1,44	1,53	1,55	1,55
ERSS-48xLL-0-T25-15C (ERSS-48xLL-0-T25-M)	0,94	0,94	1,44	1,53	1,55	1,55

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)	1,04	1,20	1,22	1,12	0,94	1,02	1,99
ERSS-48xLL-0-T25-15C (ERSS-48xLL-0-T25-M)	1,04	1,20	1,22	1,12	0,94	1,02	1,99

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)	DVP-EFB-51NS (EPM-B-51N-5.4-0.84)	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	DVP-EF-7005N (EPM-70N-5.1-0.5)	DVP-EF-7007H (EPM-70H-6.0-0.7)	-	-	EPM-IT-80-6.8-0.8
	-	DVP-EF-7007N (EPM-70N-6.0-0.7)	-	-	EPM-IE-80-6.8-0.8
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)	2,36	2,91	3,87	2,93	2,92
ERSS-48xLL-0-T25-15C (ERSS-48xLL-0-T25-M)	2,36	2,91	3,87	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners	Annex A.1 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
	TRP-45xLL (EPT-45xLL-PA)	HTLK-45xLL (EPT-O-45xLL-PP)	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
	BTRP-45xLL (EPT-B-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	DVP-EF-5010DFR (EPM-50D-4.85-1.0)
	TWP-8040xLL (EPT-8040xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	DVP-EF-7070D (EPM-7070D-4.85-1.0)
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	DVP-EF-7010DFR (EPM-70D-4.85-1.0)
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	DVP-EF-8240D (EPM-8240D-4.85-1.0)
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	DVP-EFF-8040D (EPM-8040D-4.85-1.0)
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)	2,67	1,77	5,18
ERSS-48xLL-0-T25-15C (ERSS-48xLL-0-T25-M)	2,67	1,77	5,18

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)				
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)	5,05	4,43	3,89	2,96
ERSS-48xLL-0-T25-15C (ERSS-48xLL-0-T25-M)	5,05	4,43	3,89	2,96

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners	Annex A.2
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	of European Technical Assessment ETA-23/0651

**Screw:**

EDS-S-48xLL	(ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)
ERSS-48xLL-0-T25-15C	(ERSS-48xLL-0-T25-M)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240H	(EPM-8240H-7.0-1.0)
DVP-EF-5010DFR	(EPM-50D-4.85-1.0)	DVP-EF-8240XH	(EPM-8240XH-4.85-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-EFB-51NS	(EPM-B-51N-5.4-0.84)
DVP-EF-7070D	(EPM-7070D-4.85-1.0)	DVP-EF-51N	(EPM-B-51N-6.7-0.84)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	DVP-EFB-8240D	(EPM-B-8240D-4.85-1.0)
DVP-EF-7010DFR	(EPM-70D-4.85-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-EF-7005D	(EPM-70D-5.0-0.5)	DVP-EFZK-8240D	(EPM-ZK-8240D-4.85-1.0)
DVP-EF-7007D	(EPM-70D-6.0-0.7)	DVP-EFF-8040D	(EPM-8040D-4.85-1.0)
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7005N	(EPM-70N-5.1-0.5)	EPM-IE-80-6.8-0.8	
DVP-EF-7007N	(EPM-70N-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8240D	(EPM-8240D-4.85-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)	Termination bar:	
TRP-45xLL	(EPT-45xLL-PA)	EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
BTRP-45xLL	(EPT-B-45xLL-PA)	EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
TWP-8040xLL	(EPT-8040xLL-PA)	EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
TLK-45xLL	(EPT-45xLL-PP)	EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)
HTLK-45xLL	(EPT-O-45xLL-PP)		
TLK-75xLL	(EPT-75xLL-PP)		

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

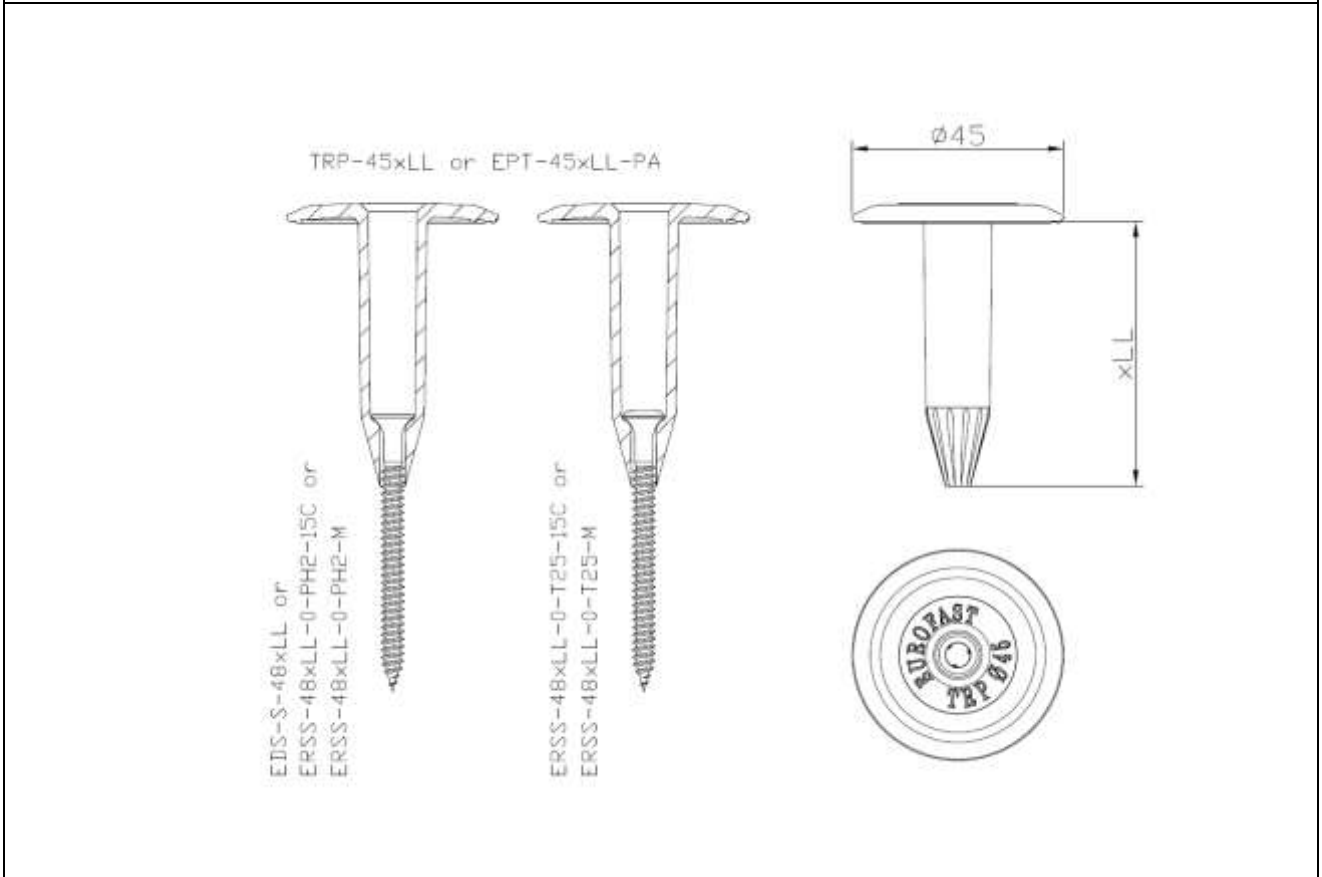
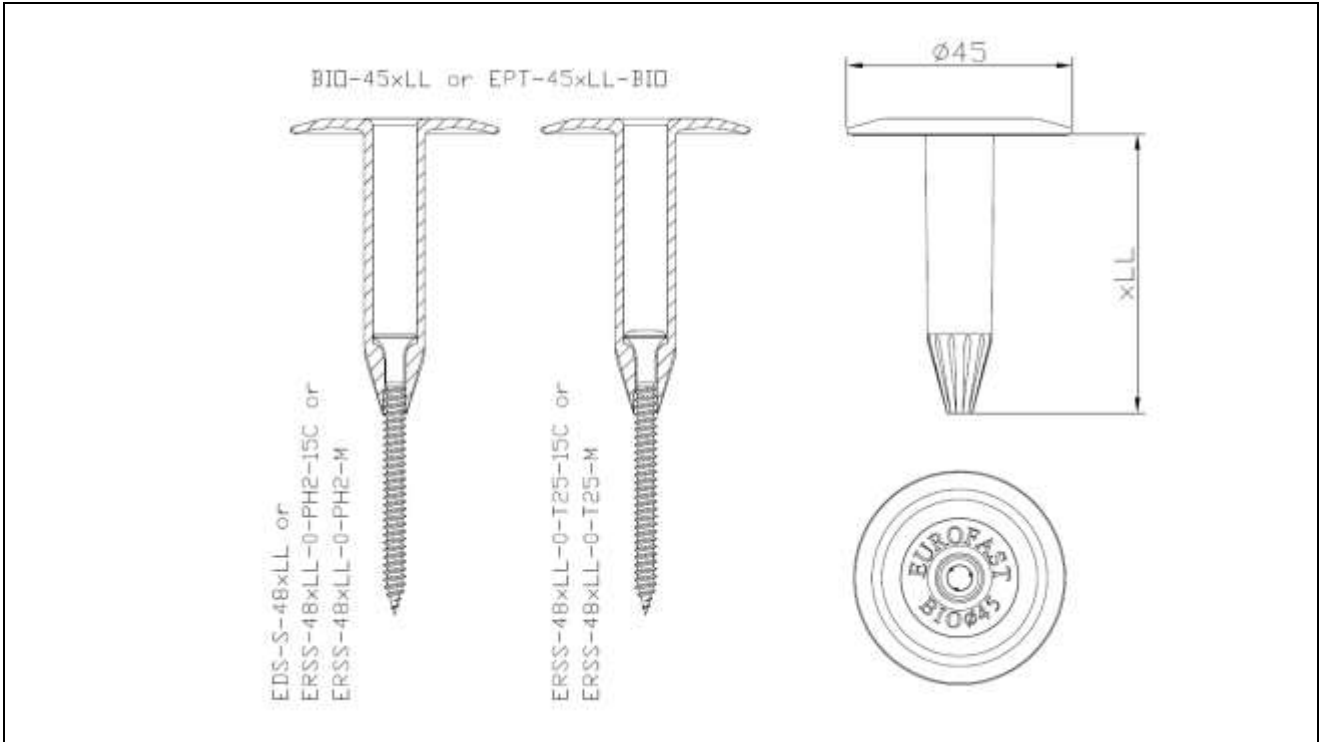
Max. drilling capacity in steel substrate:	0,88 mm
Head type:	Bugle Head / Raised Bugle Head
Recess:	PH2 / TX25
Fixing in steel substrate:	Min. 20 mm of the screw fixed through the steel sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel substrate	15 kg
- wooden and wood-based substrate	30 kg
Installation tool speed:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)
(ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

Annex A.3

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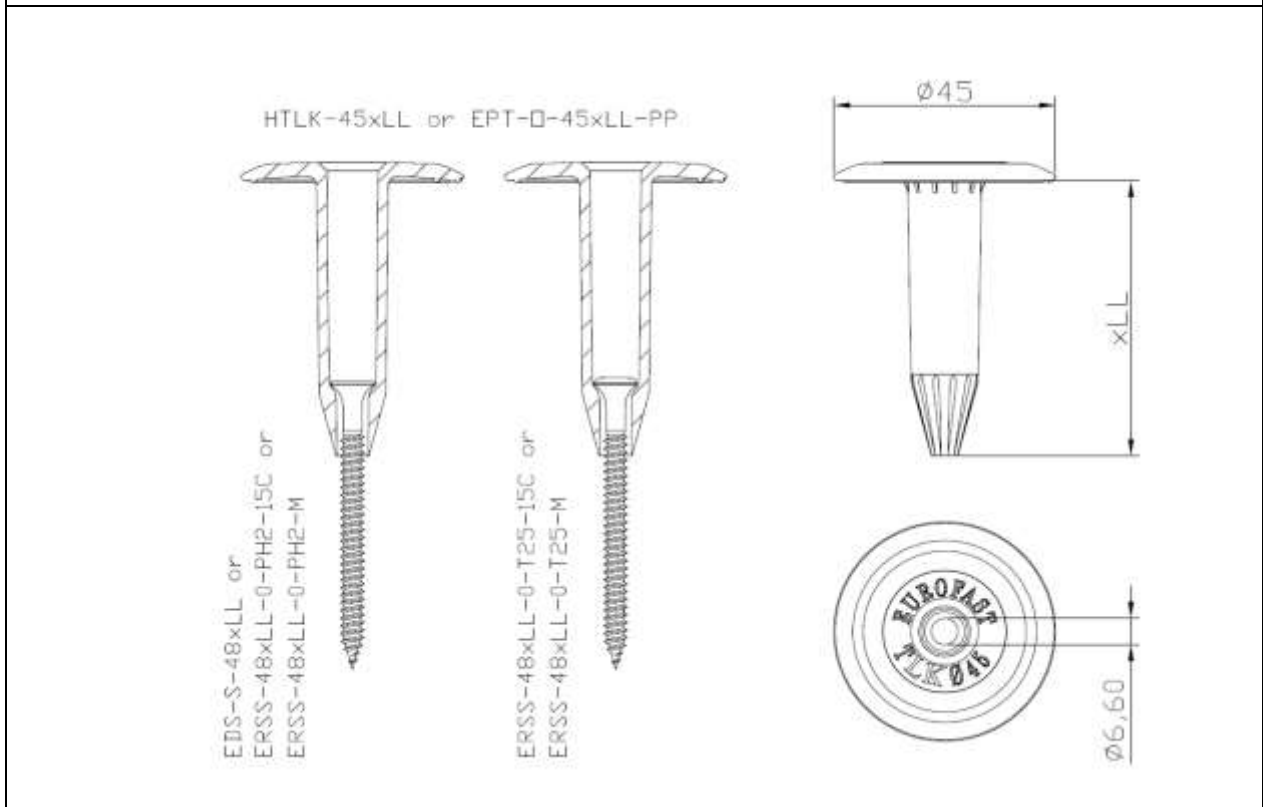
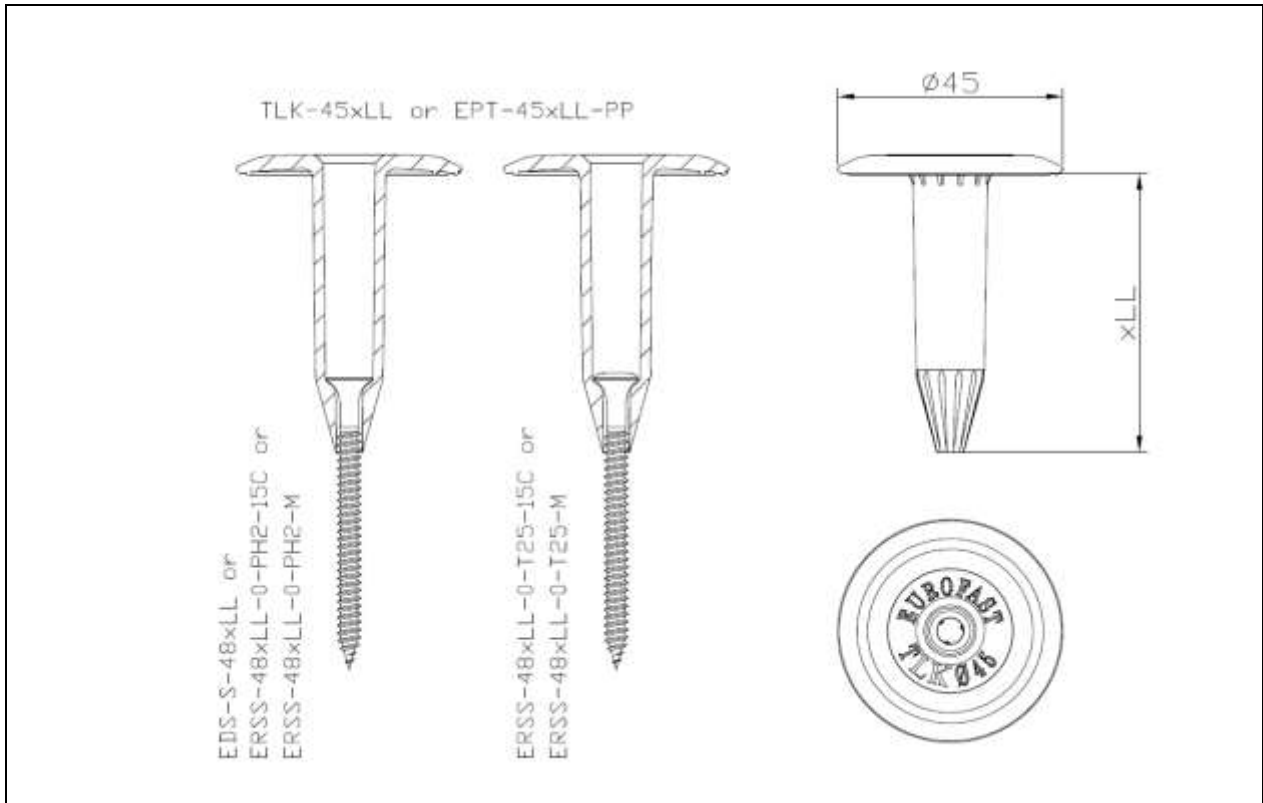


Eurofast Flat Roof Fasteners	Annex A.4
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	of European Technical Assessment ETA-23/0651

<p style="text-align: center;">BTRP-45xLL or EPT-B-45xLL-PA</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	<p style="text-align: center;">TWP-8040xLL or EPT-8040xLL-PA</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex A.5 of European Technical Assessment ETA-23/0651</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	

<p>EDF-BAR-F-TUBE + KMT-15xLL or ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA</p> <p>Hole $\varnothing 15,00$</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>Hole $\varnothing 15,00$</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	<p>EDF-BAR-F-TUBE or ETM-T-2250-30-6.5-8.3-15.0-1.0</p> <p>Hole $\varnothing 6,50$</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>Hole $\varnothing 6,50$</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p>Eurofast Flat Roof Fasteners</p>	
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	<p>Annex A.6 of European Technical Assessment ETA-23/0651</p>

<p>EDF-BAR F or ETM-2250-30-4.8-8.5-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	<p>EDF-BAR FB or ETM-B-2250-30-4.8-8.5-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>		<p>Annex A.7 of European Technical Assessment ETA-23/0651</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>		

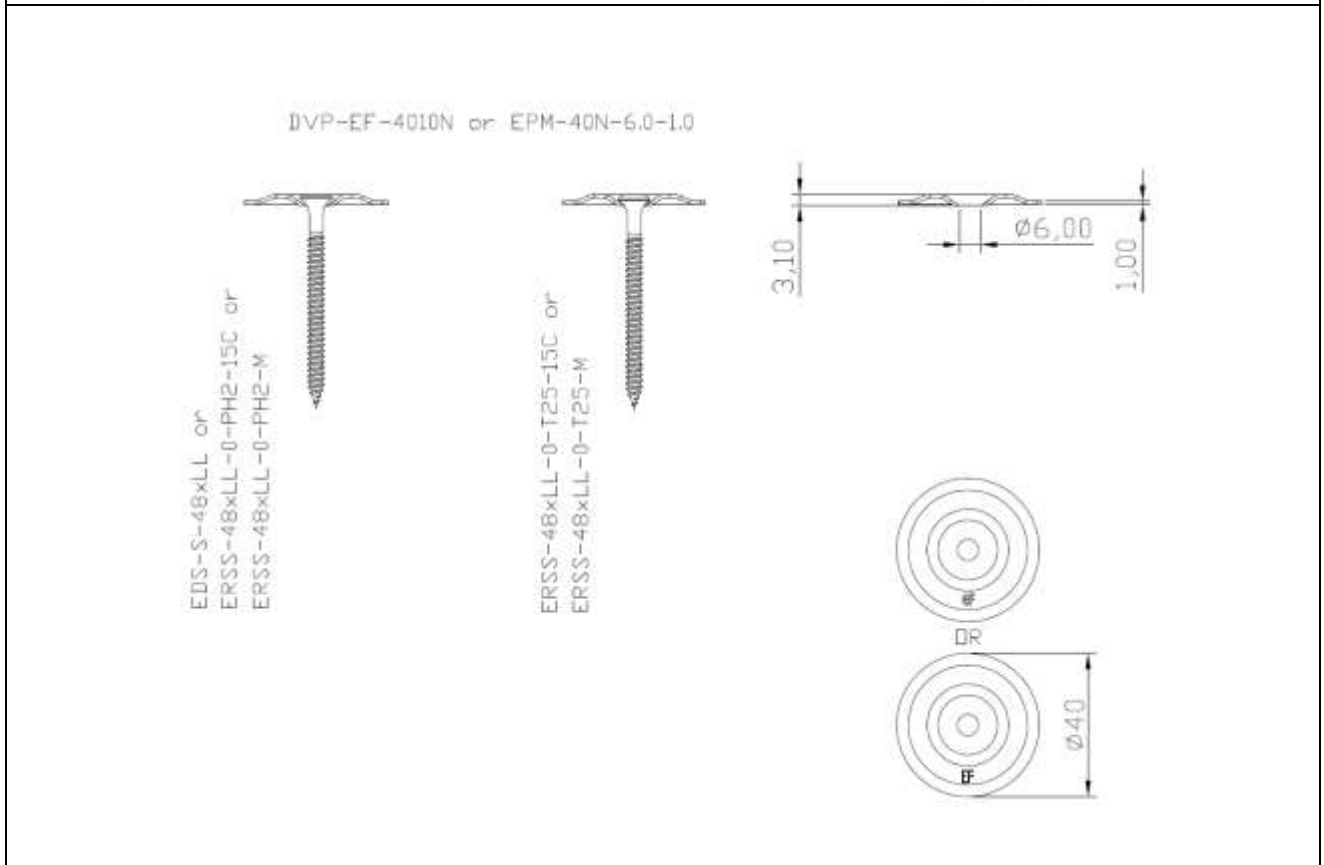
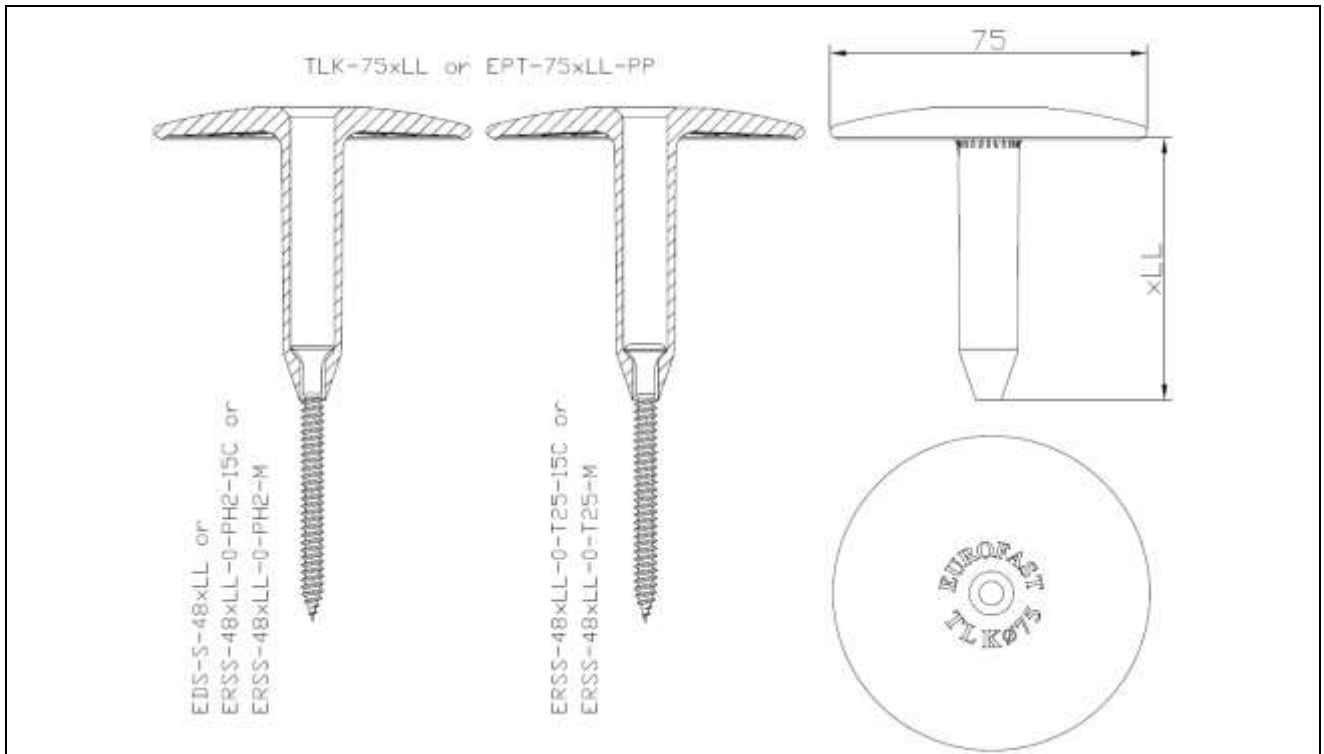


Eurofast Flat Roof Fasteners

EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)
(ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

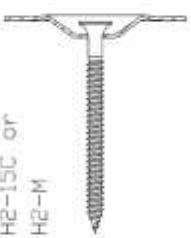

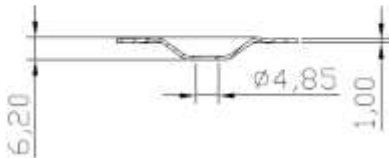
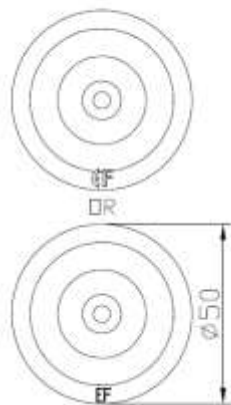
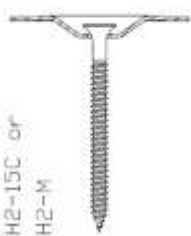
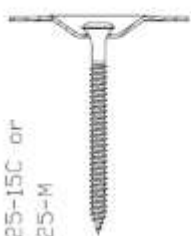
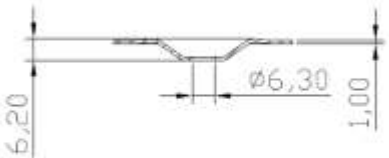
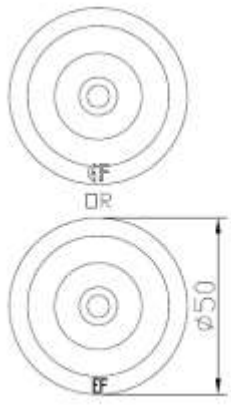
Annex A.8

of European
Technical Assessment
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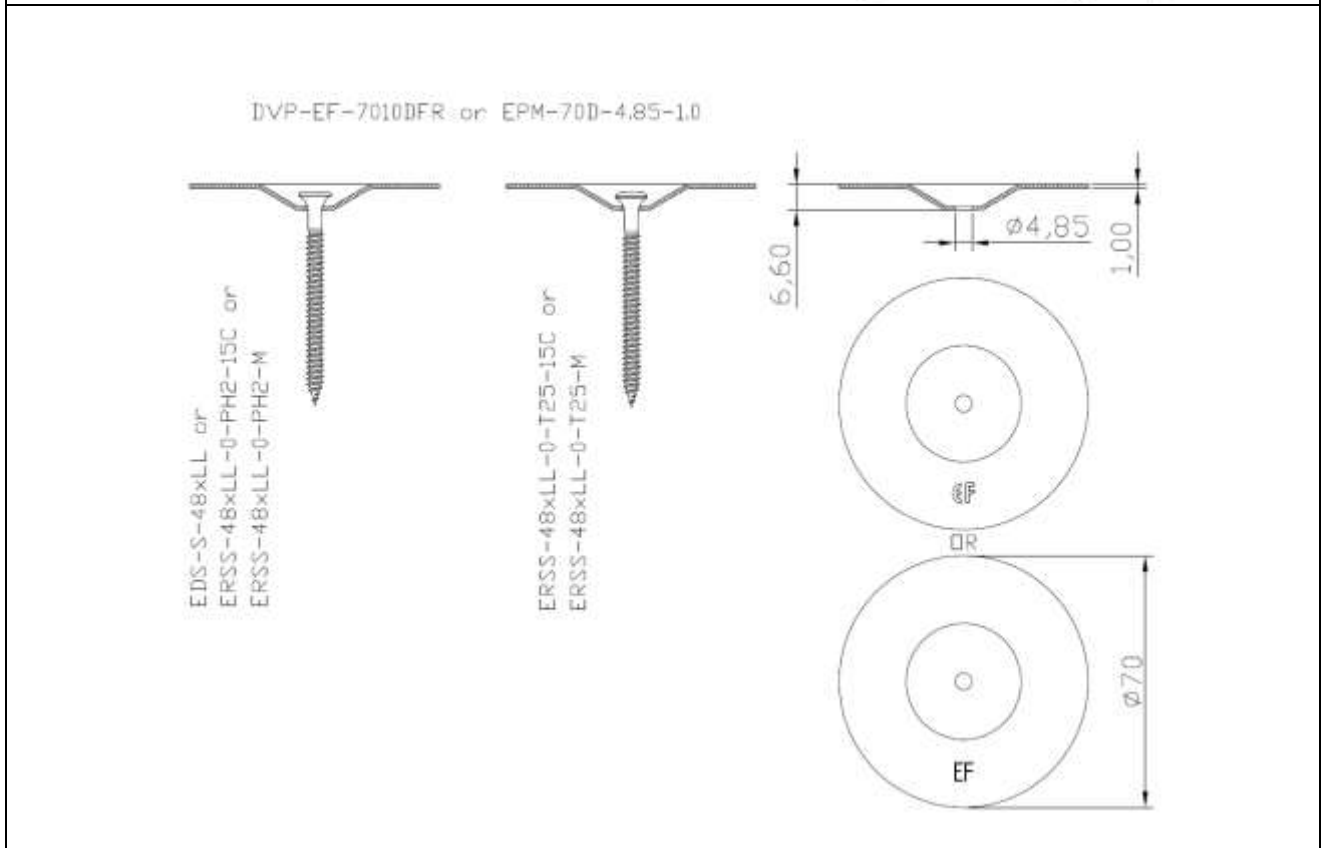
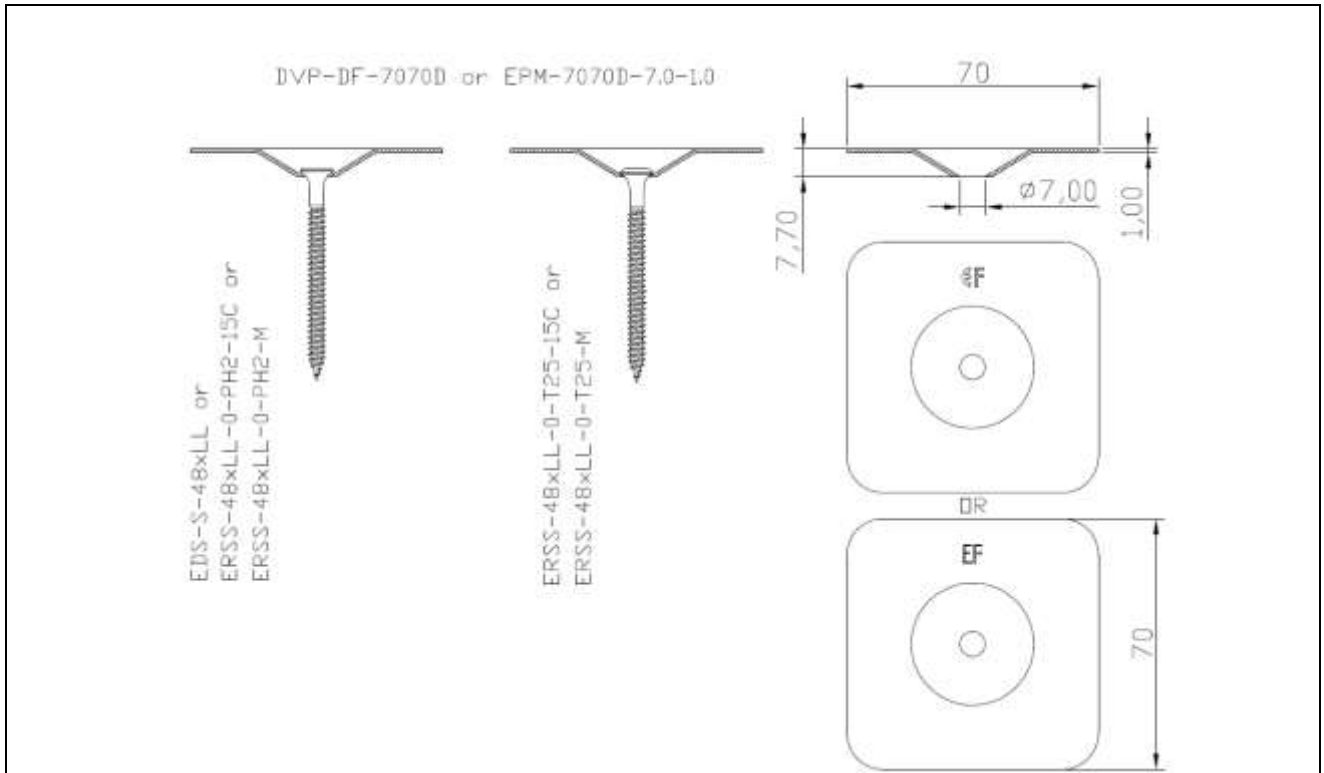


Eurofast Flat Roof Fasteners
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

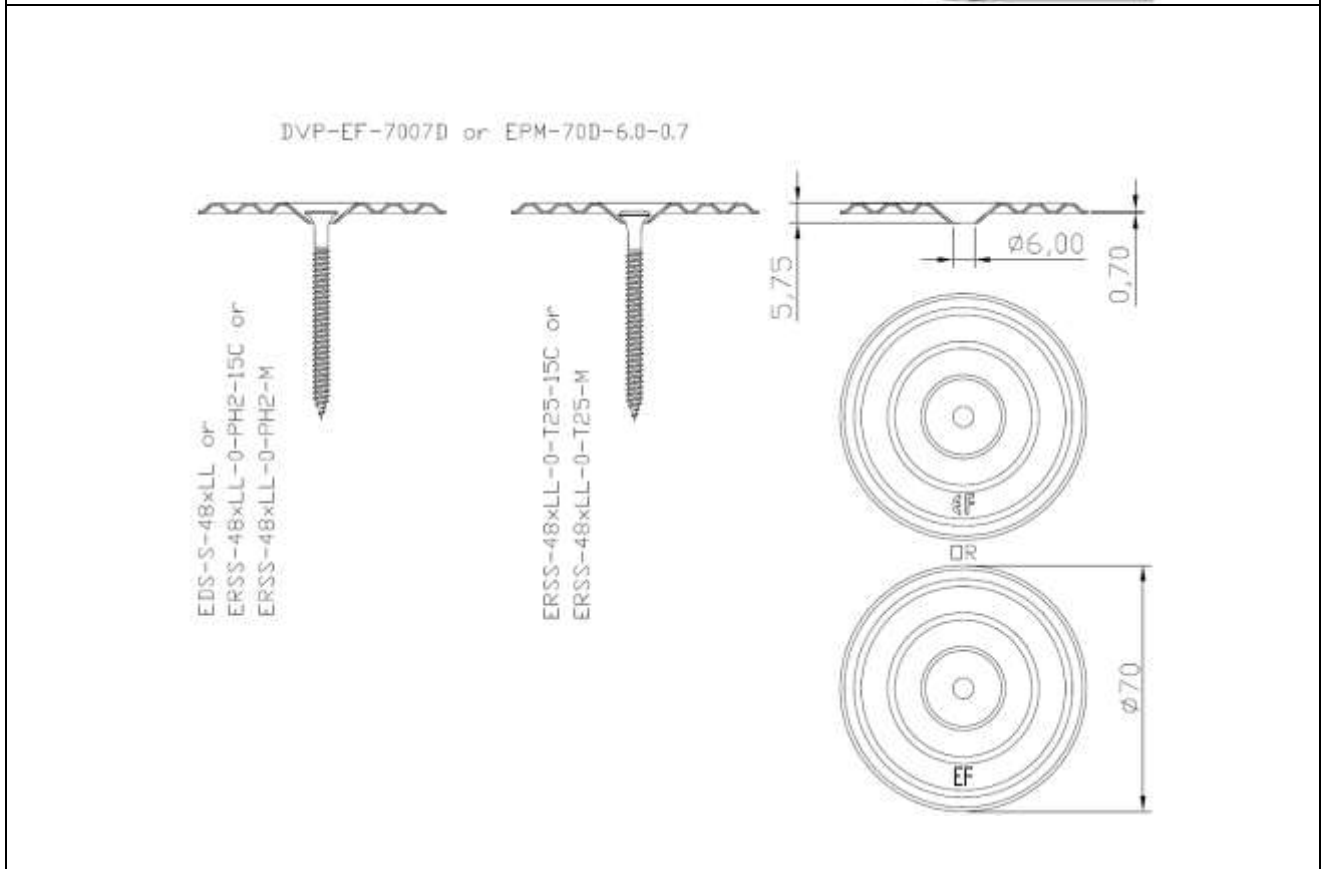
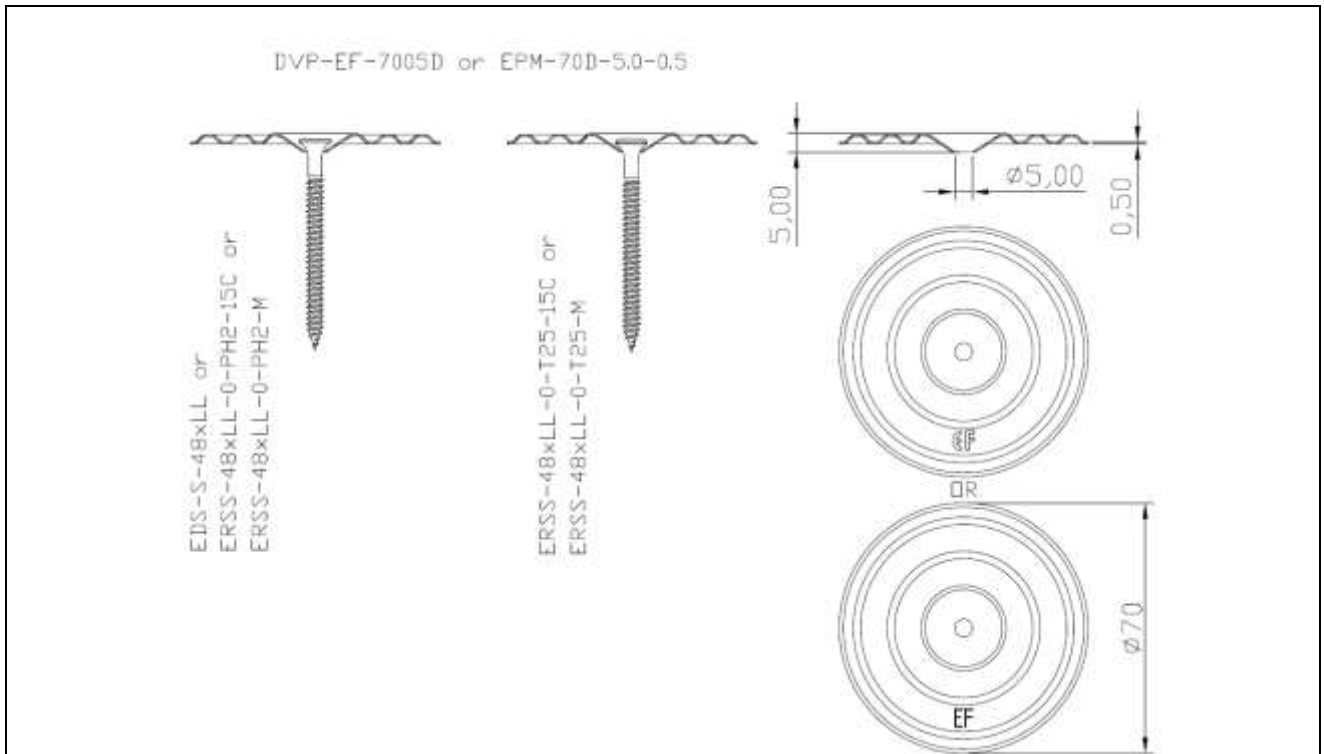
Annex A.9 of European Technical Assessment ETA-23/0651
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<p style="text-align: center;">DVP-EF-5010DFR or EPM-50D-4.85-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p>  </div> <div style="text-align: center;"> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 20px;">  </div>	
<p style="text-align: center;">DVP-EF-5010D or EPM-50D-6.3-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p>  </div> <div style="text-align: center;"> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 20px;">  </div>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex A.10 of European Technical Assessment ETA-23/0651</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	

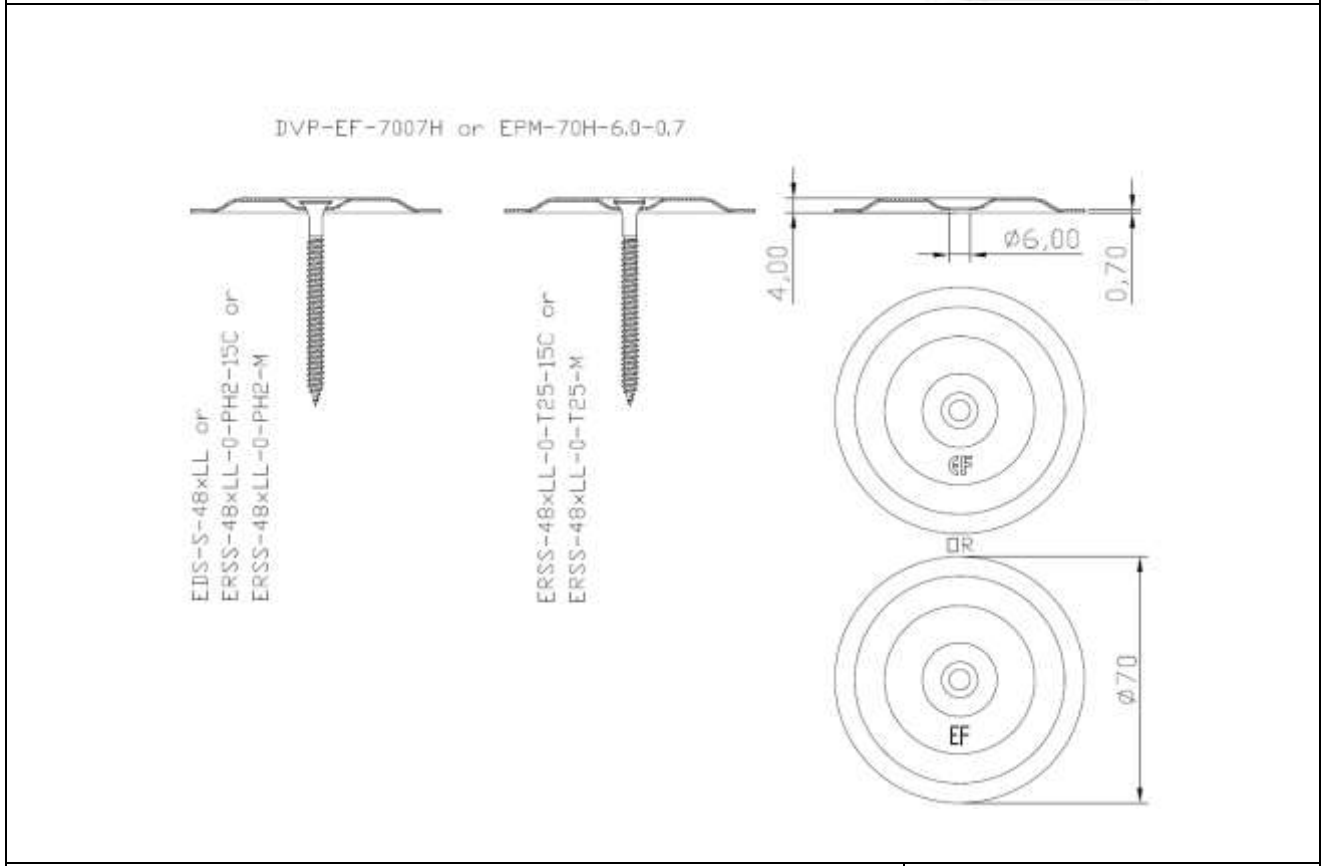
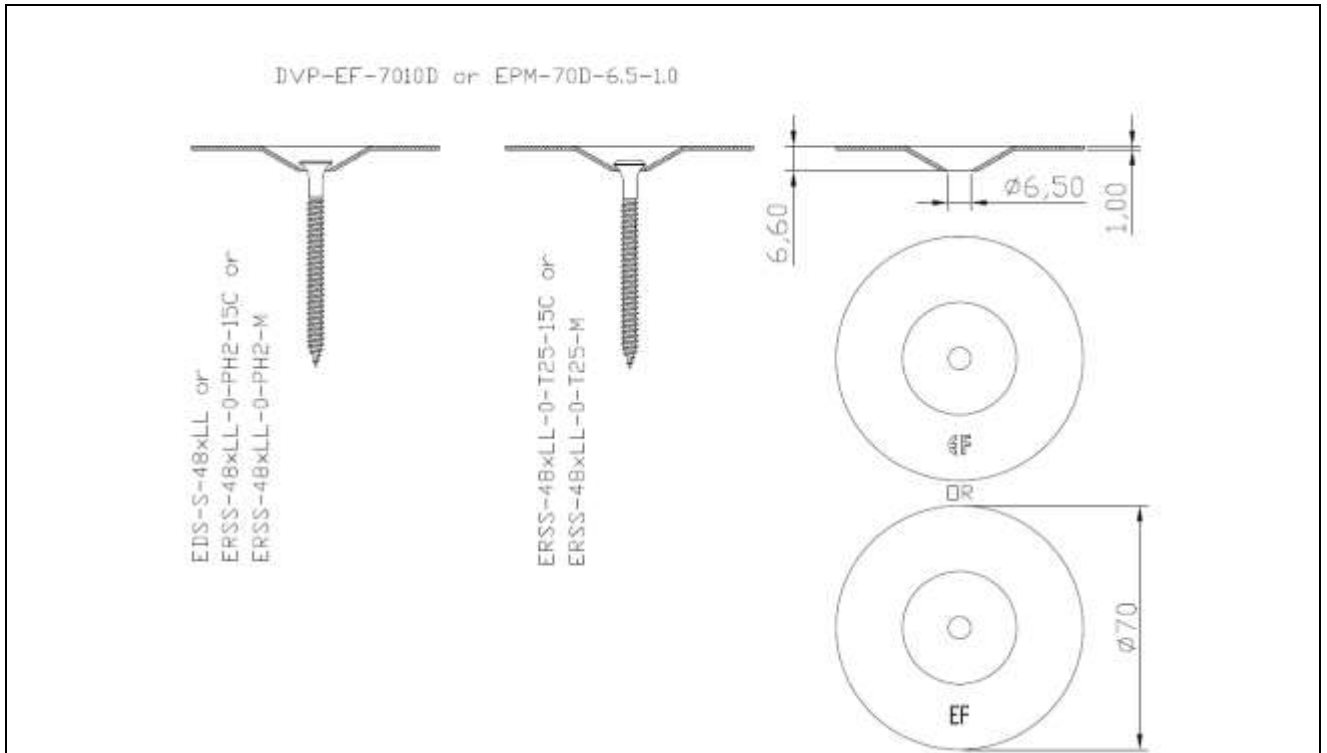
<p style="text-align: center;">DVP-EF-5010N or EPM-50N-6.3-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	<p style="text-align: center;">DVP-EF-7070D or EPM-7070D-4.85-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>	<p style="text-align: center;">Annex A.11</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	<p>of European Technical Assessment ETA-23/0651</p>



Eurofast Flat Roof Fasteners	Annex A.12 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

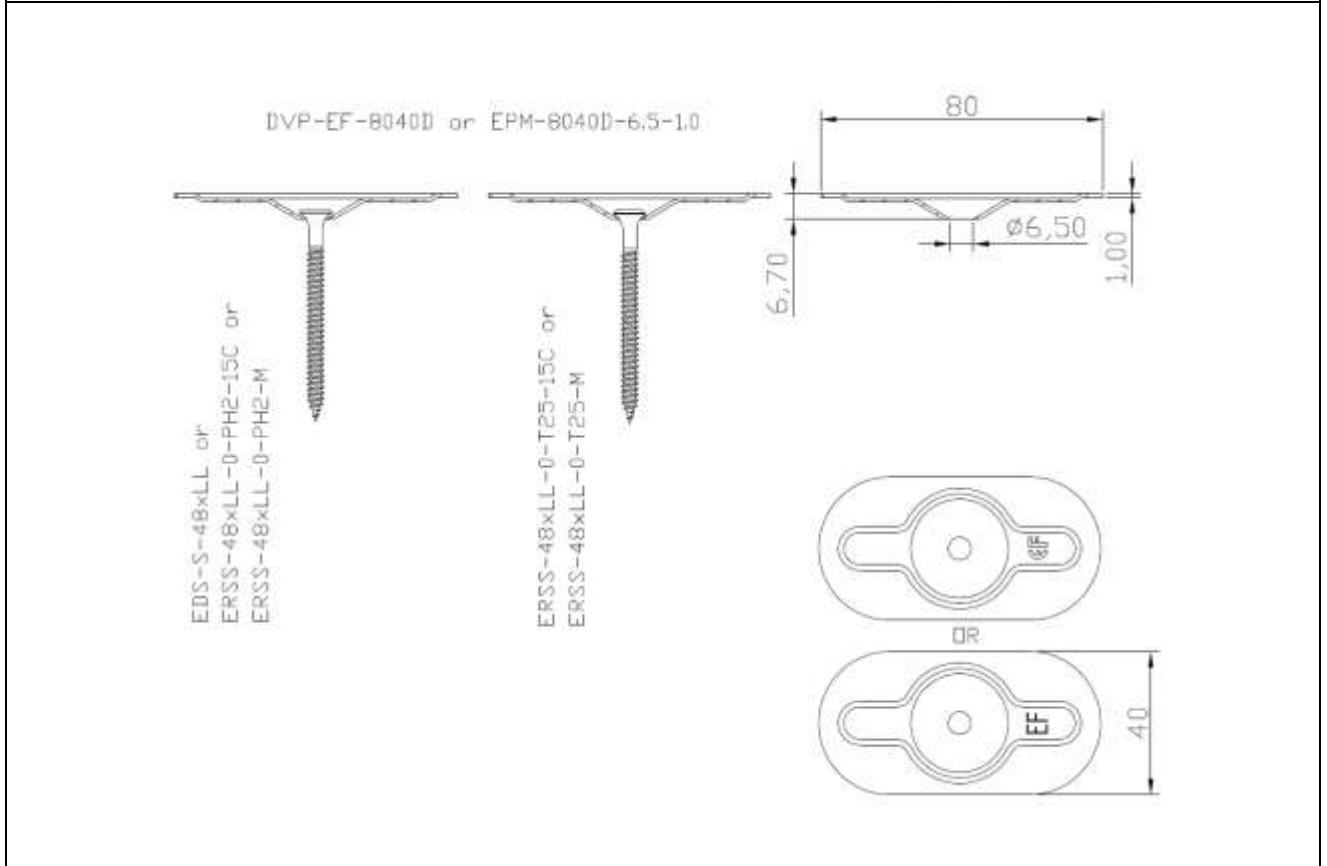
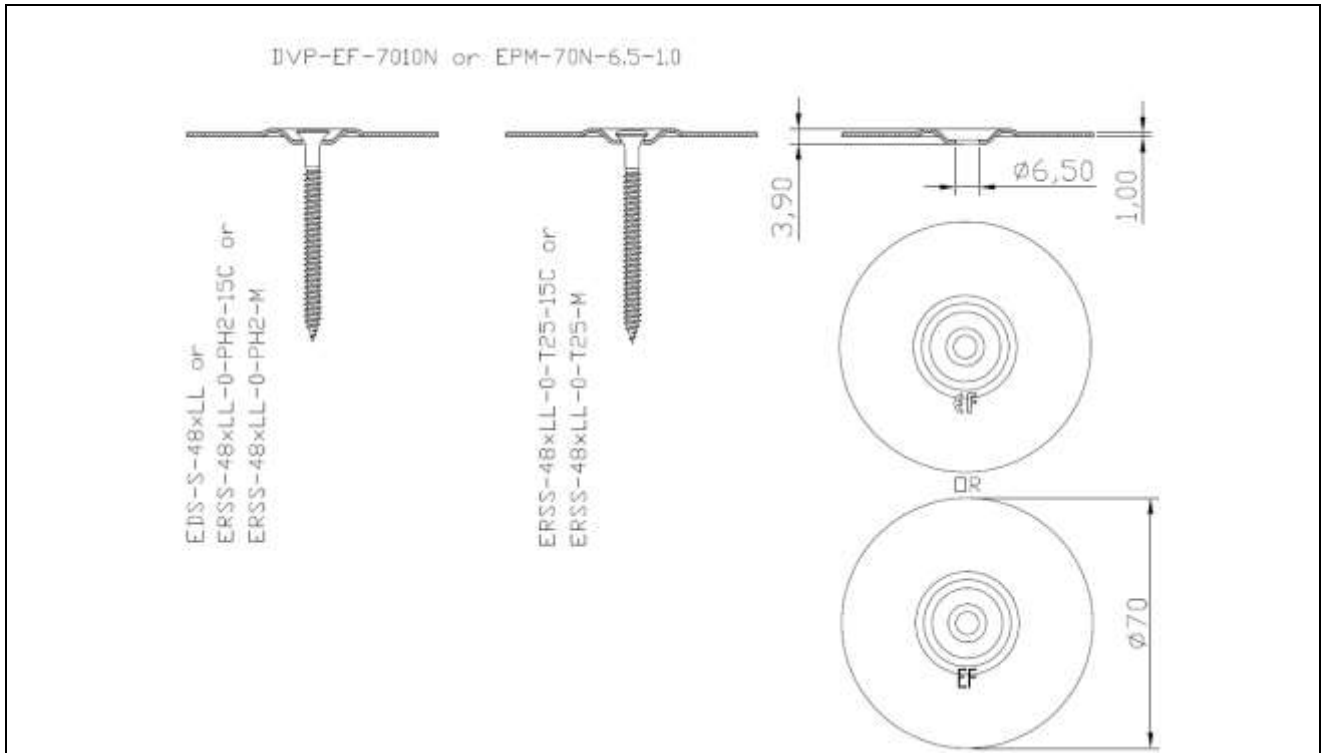


Eurofast Flat Roof Fasteners	Annex A.13 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



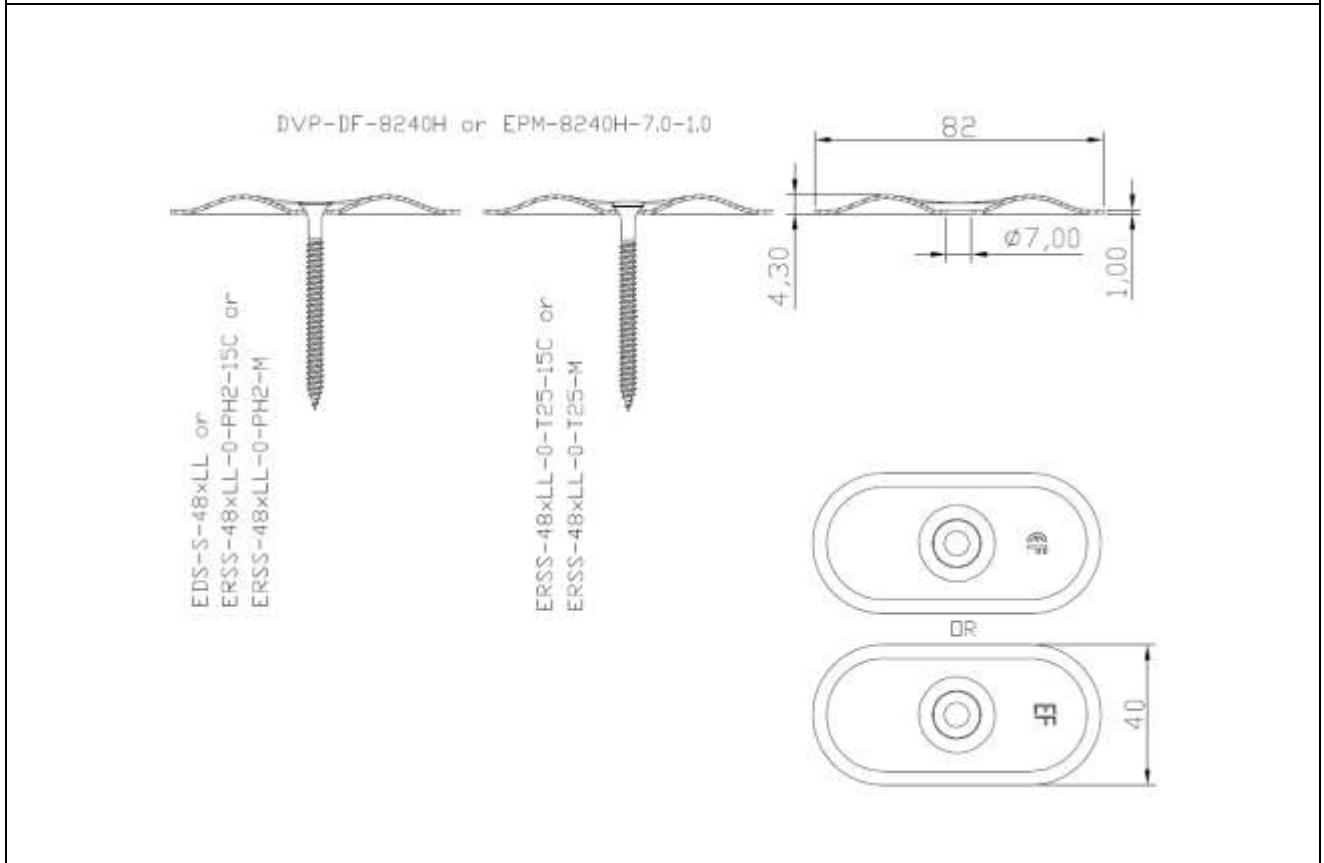
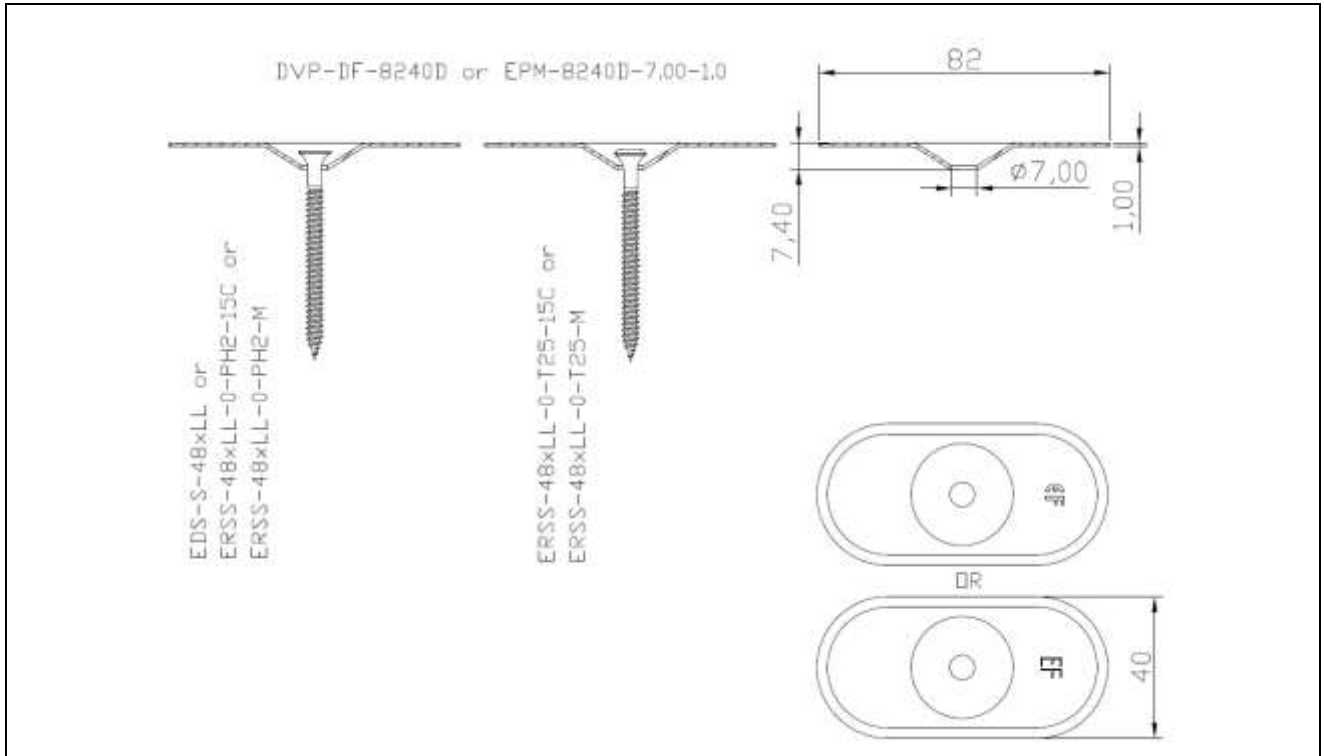
Eurofast Flat Roof Fasteners	Annex A.14 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

<p>DVP-EF-7005N or EPM-70N-5.1-0.5</p>	
<p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p>	<p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p>DVP-EF-7007N or EPM-70N-6,0-0,7</p>	
<p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p>	<p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex A.15</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	<p>of European Technical Assessment ETA-23/0651</p>

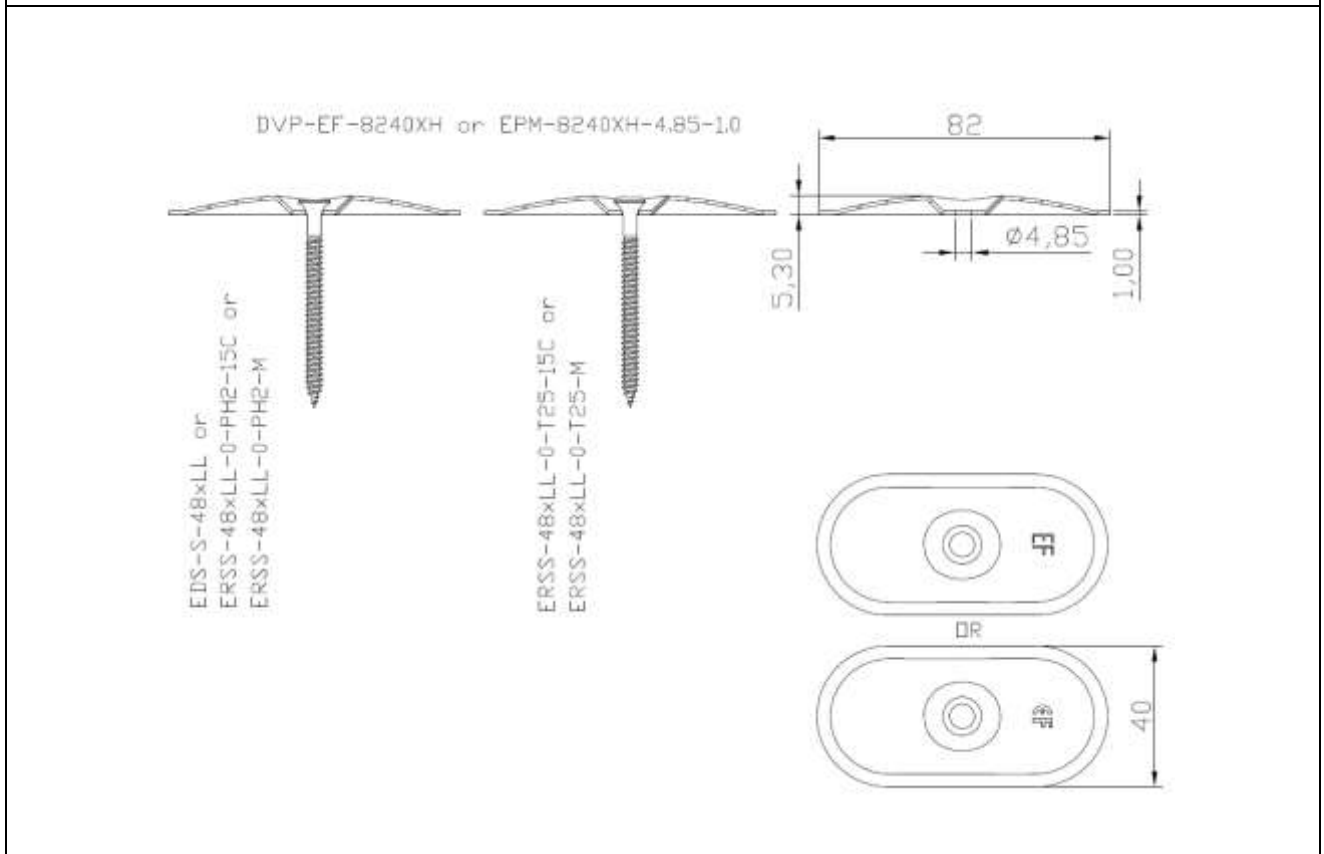
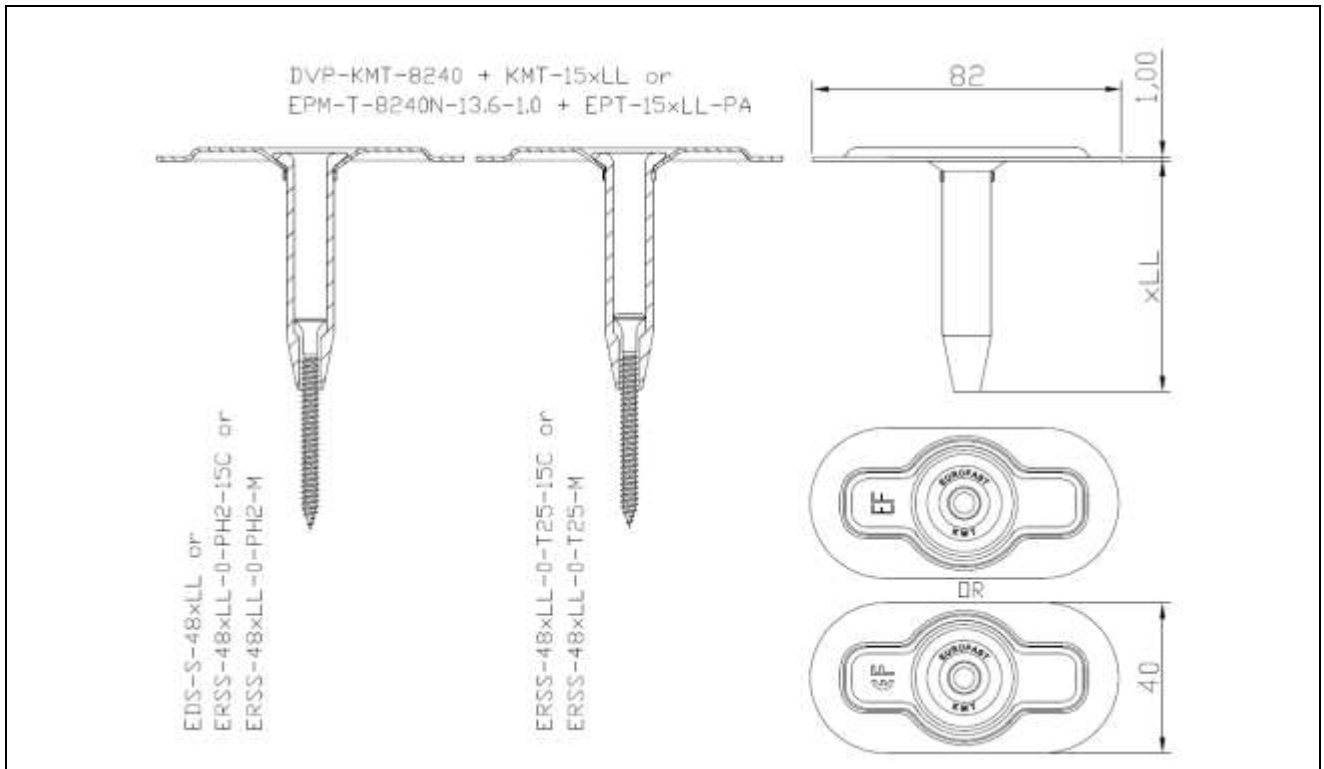


Eurofast Flat Roof Fasteners	Annex A.16 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

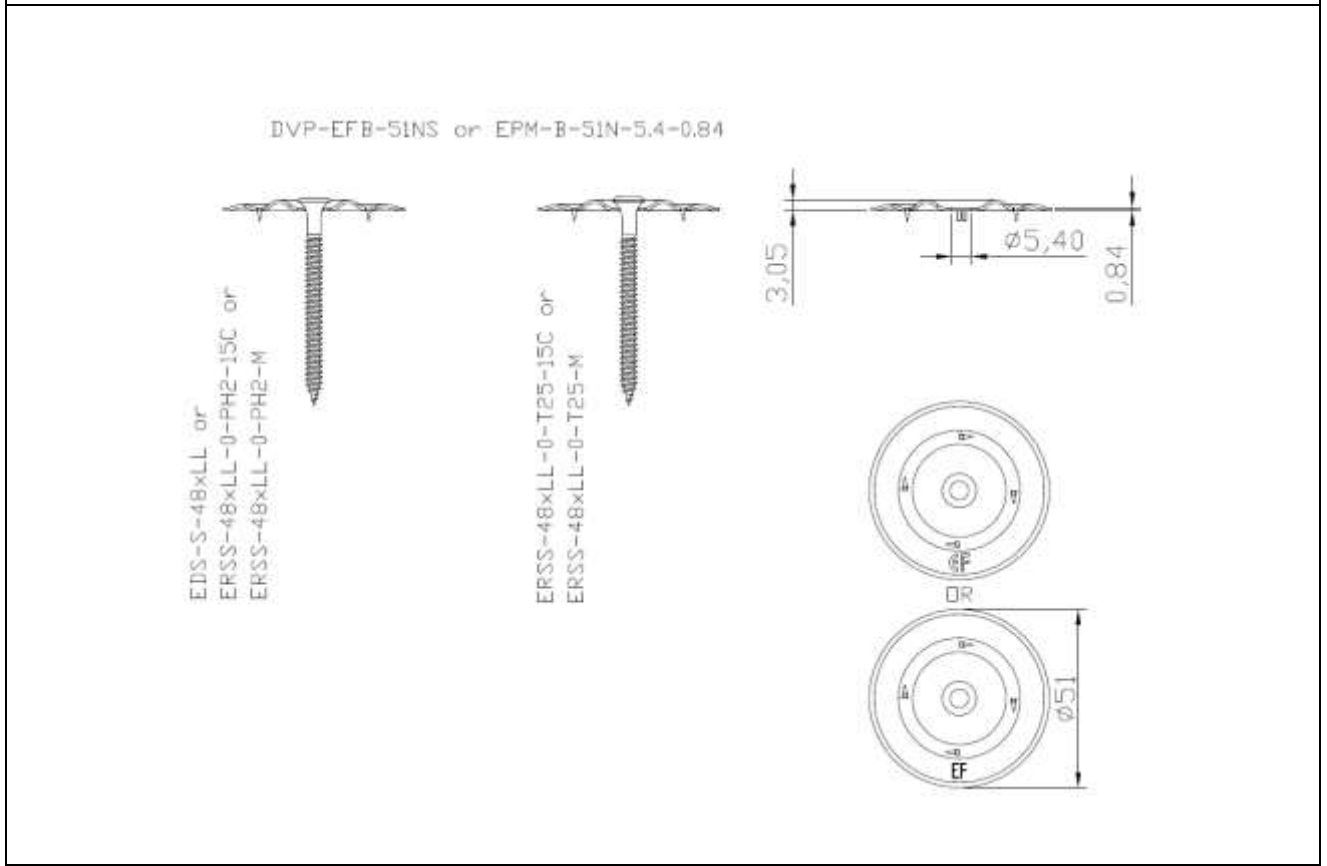
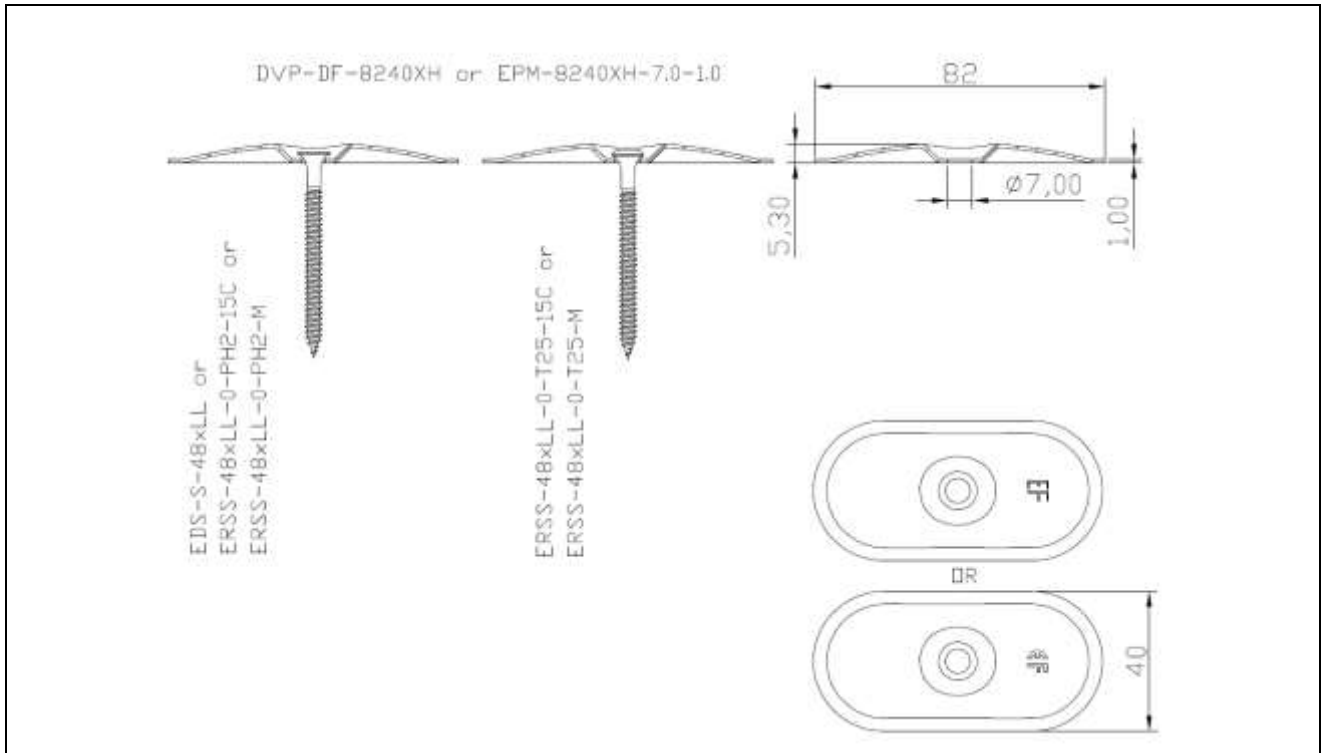
<p style="text-align: center;">DVP-EF-8040N or EPM-8040N-6.5-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	<p style="text-align: center;">DVP-EF-8240D or EPM-8240D-4.85-1.0</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>	<p style="text-align: center;">Annex A.17</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	<p>of European Technical Assessment ETA-23/0651</p>



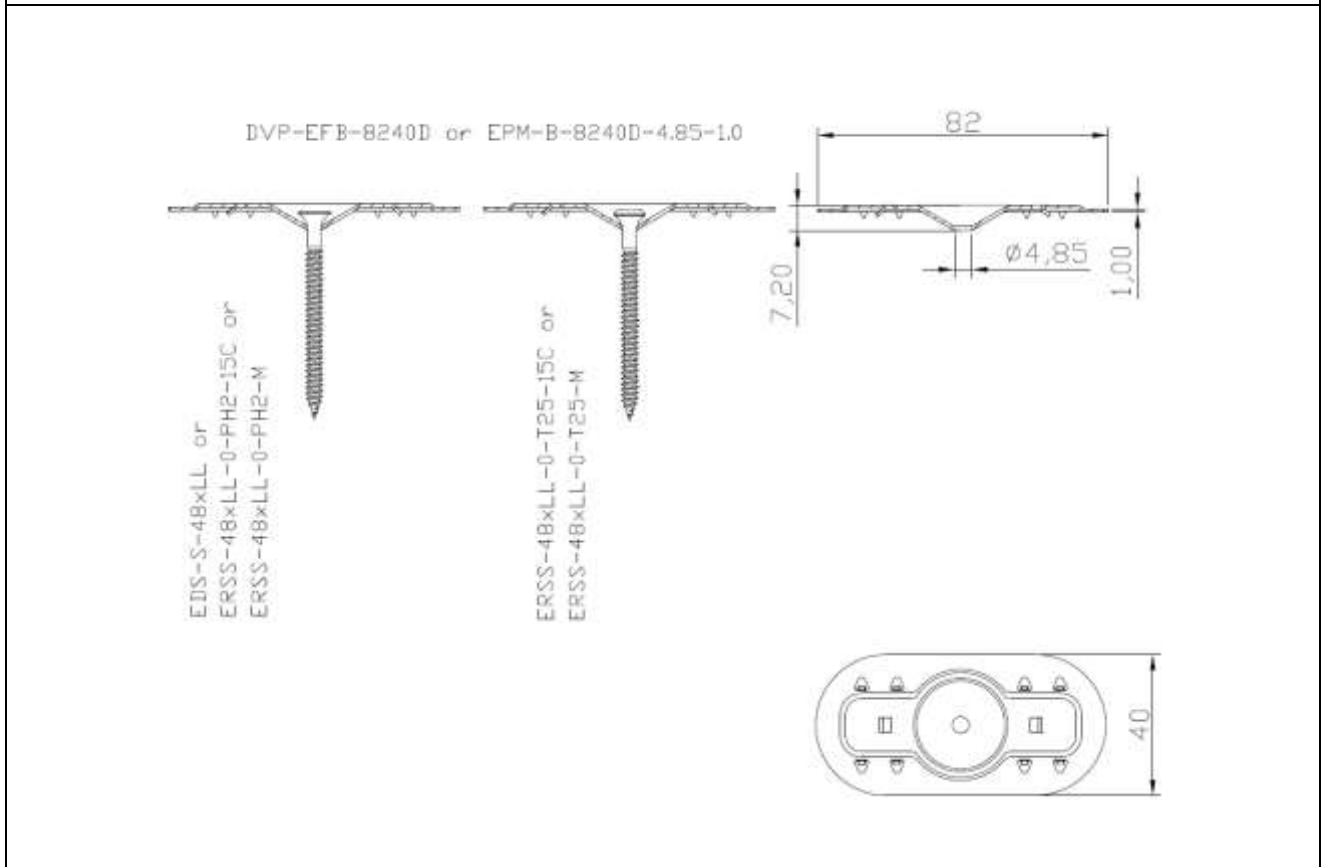
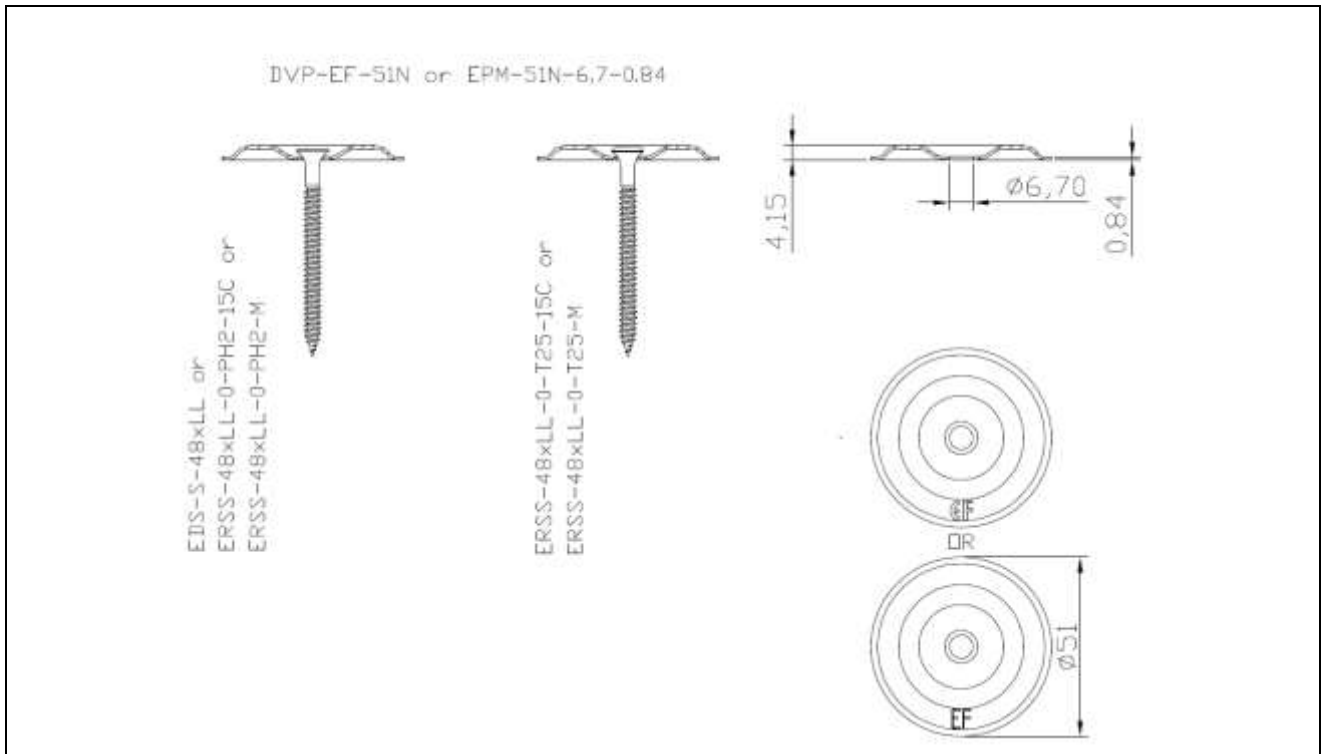
Eurofast Flat Roof Fasteners	Annex A.18 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



Eurofast Flat Roof Fasteners	Annex A.19 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

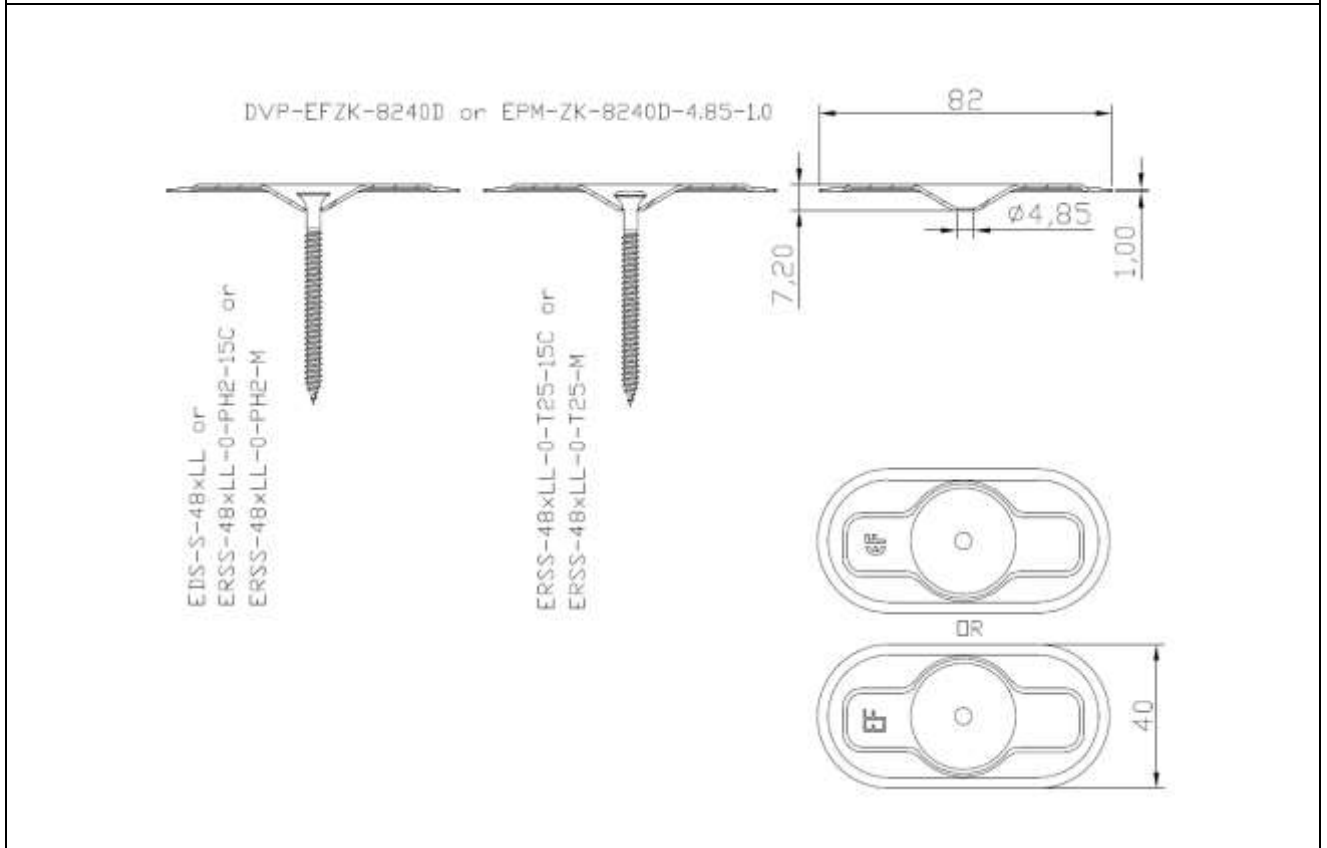
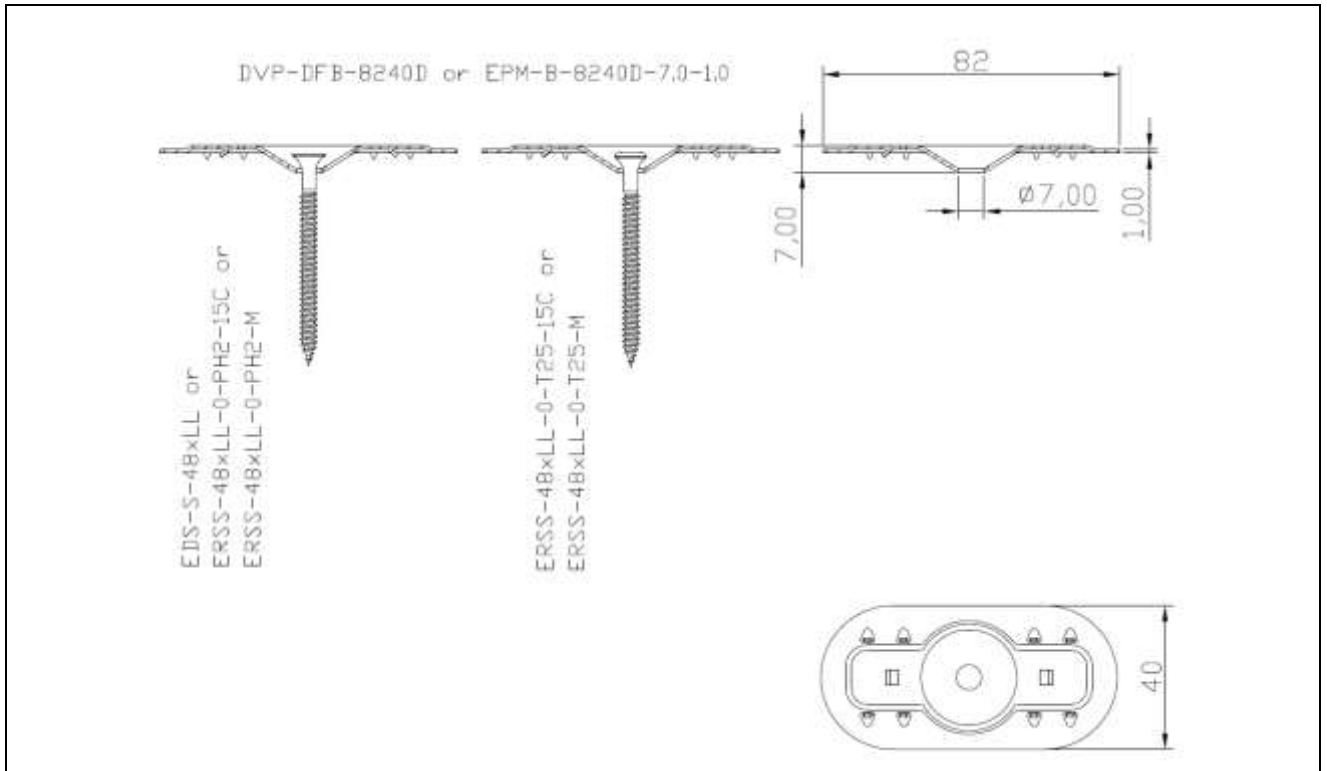


Eurofast Flat Roof Fasteners	Annex A.20
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	of European Technical Assessment ETA-23/0651

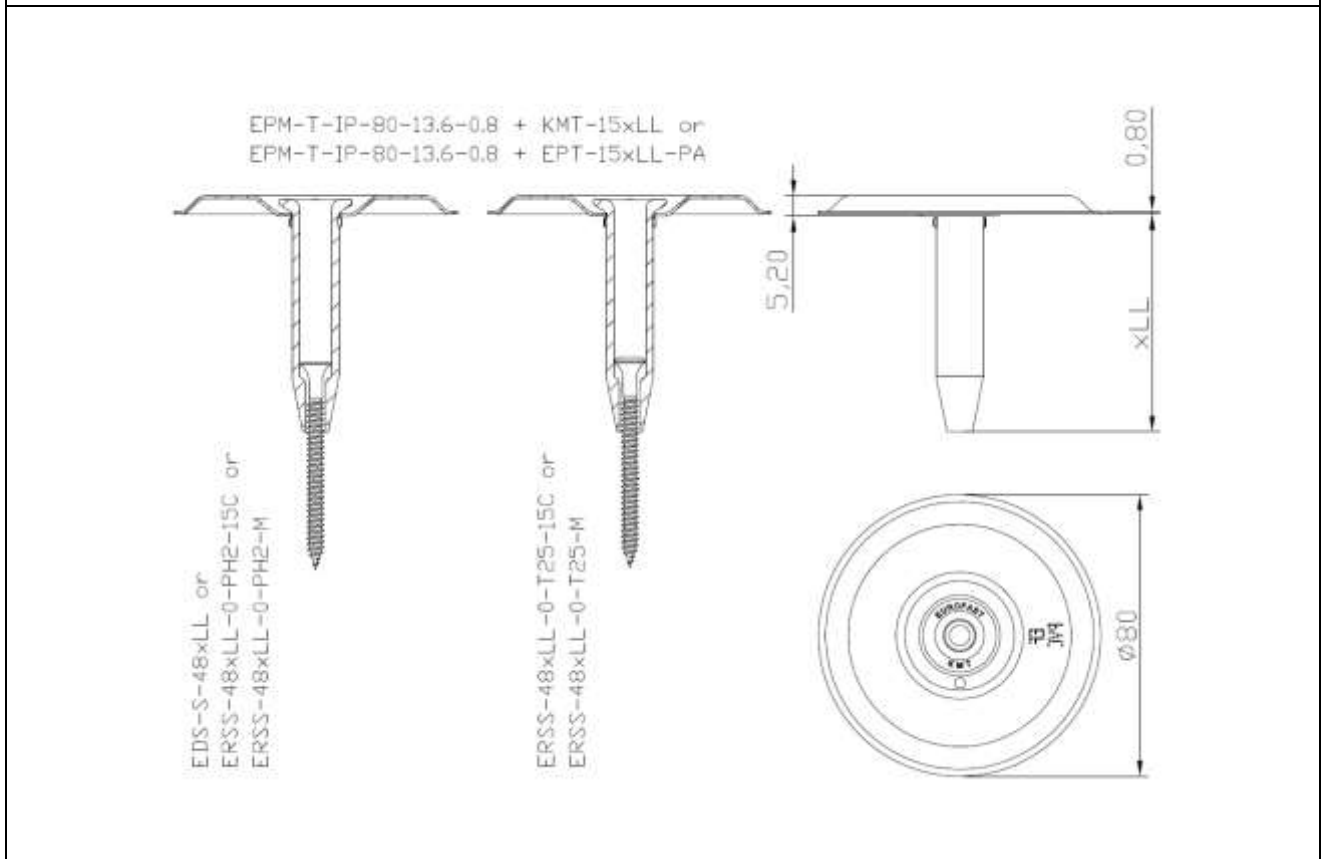
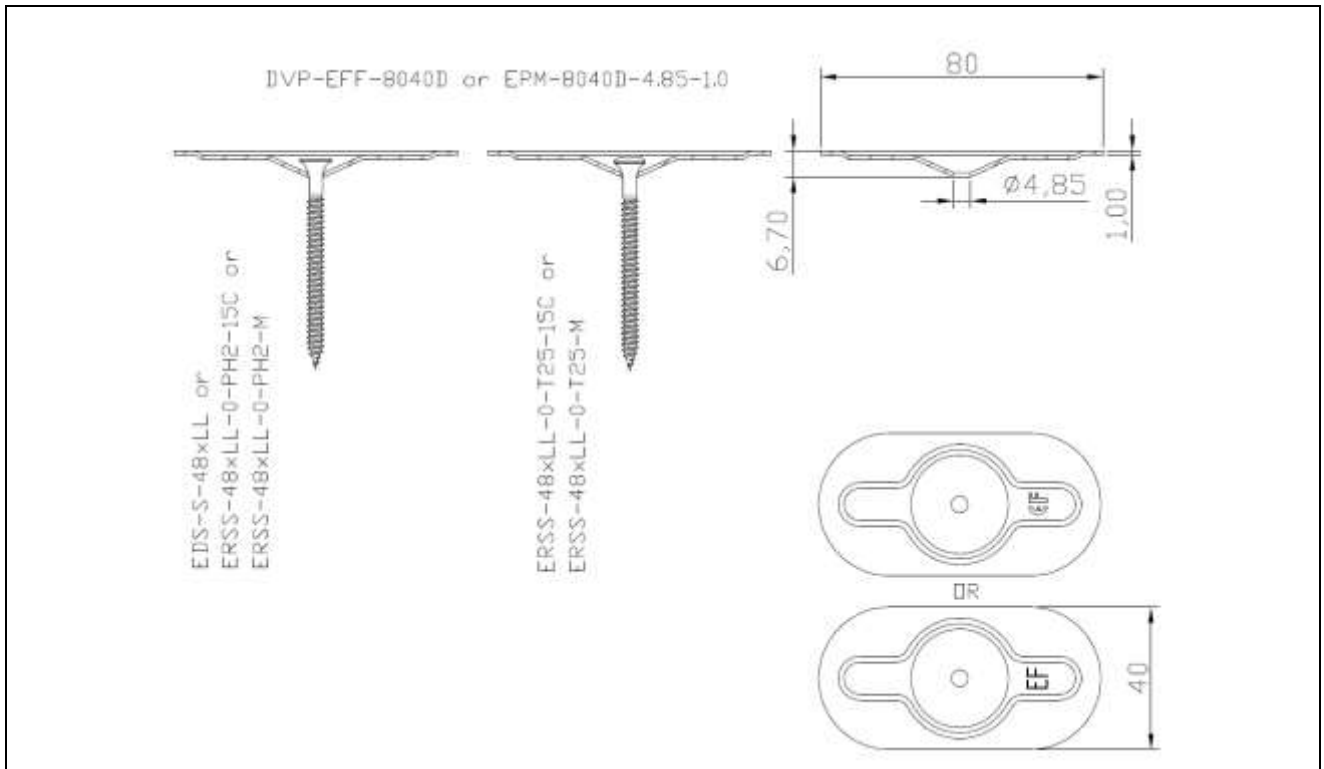


Eurofast Flat Roof Fasteners
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

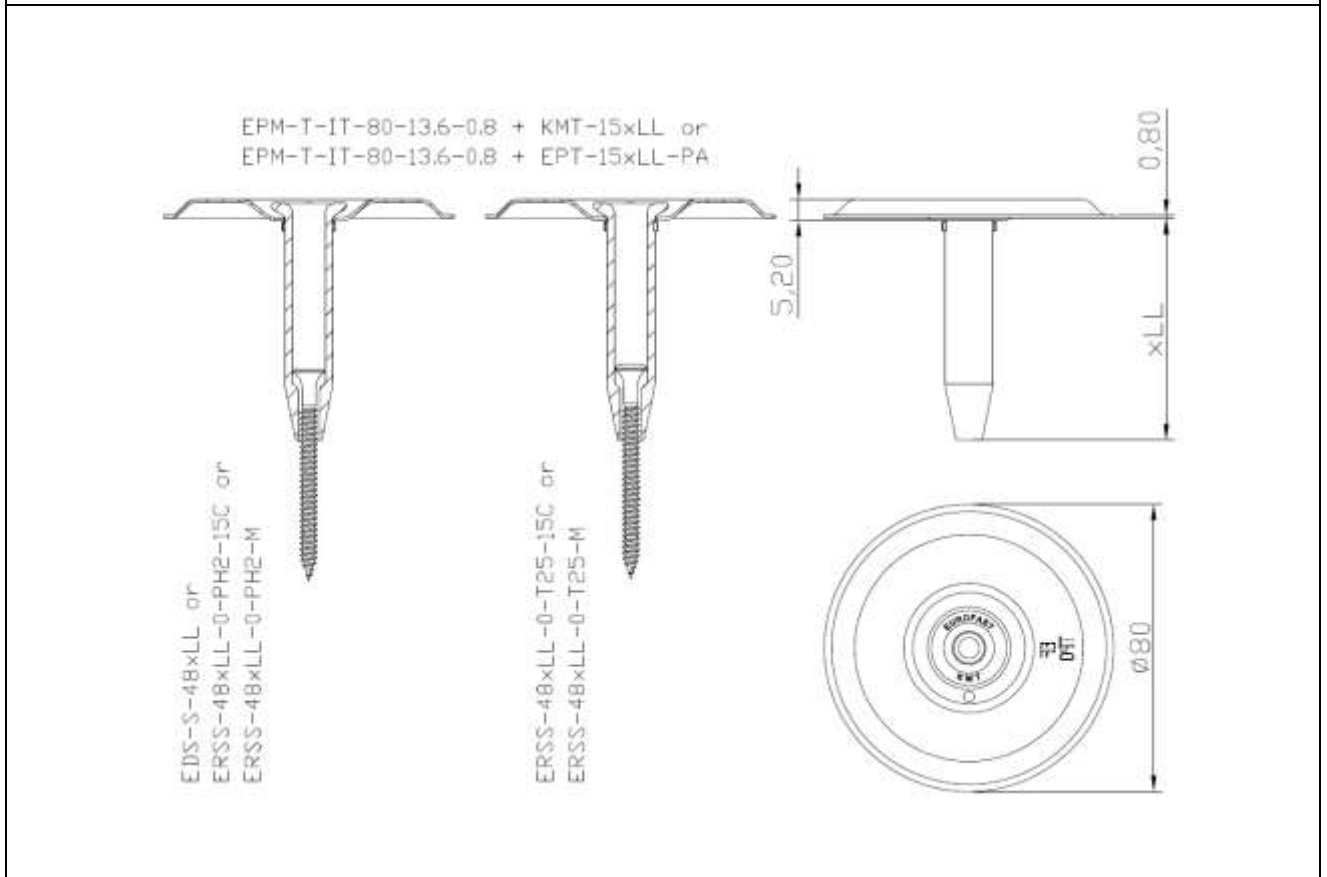
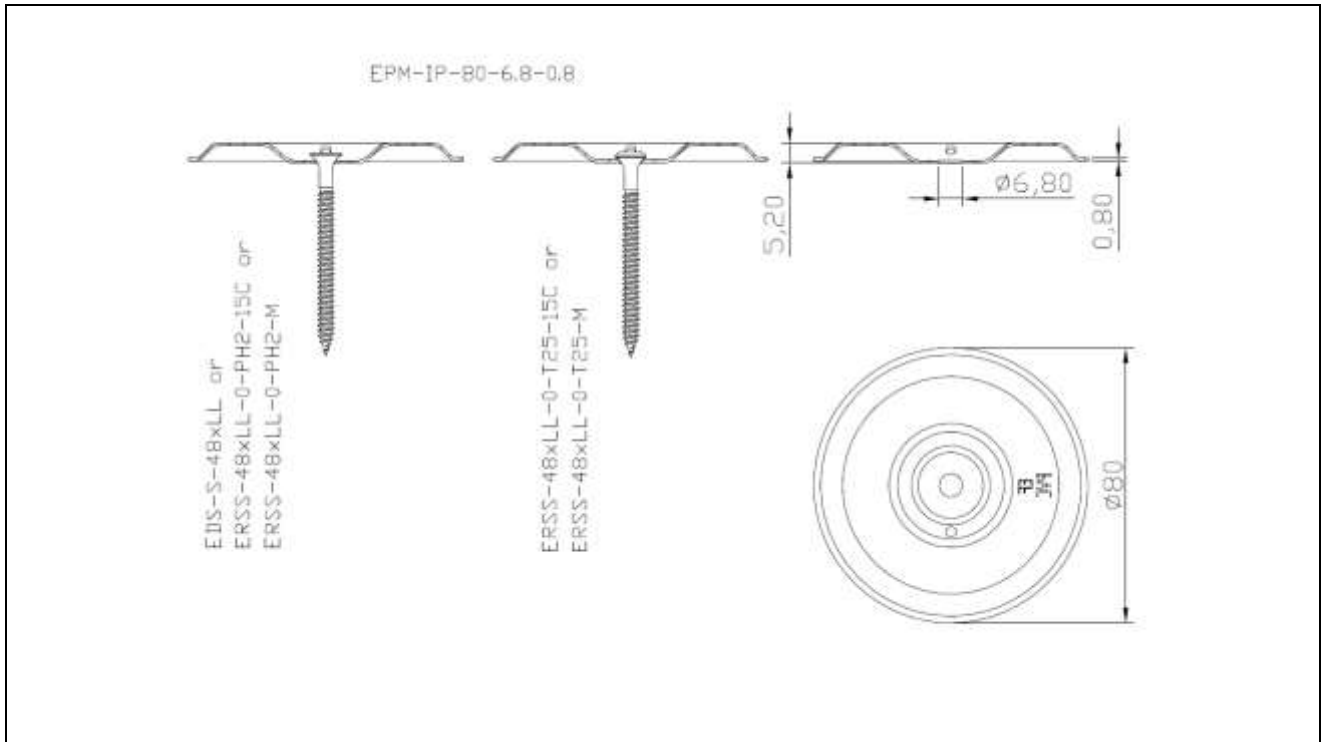
Annex A.21 of European Technical Assessment ETA-23/0651



<p>Eurofast Flat Roof Fasteners</p>	<p>Annex A.22 of European Technical Assessment ETA-23/0651</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	



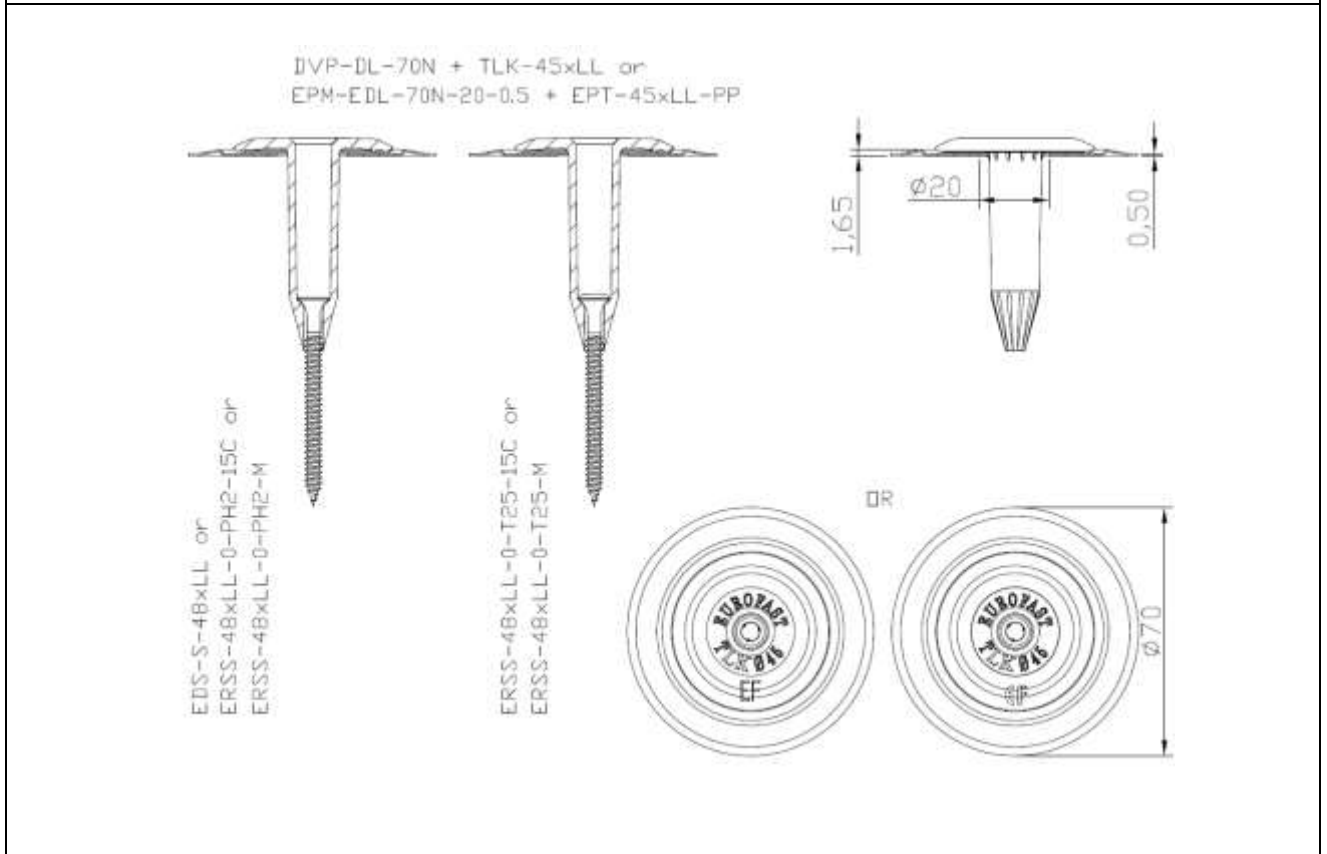
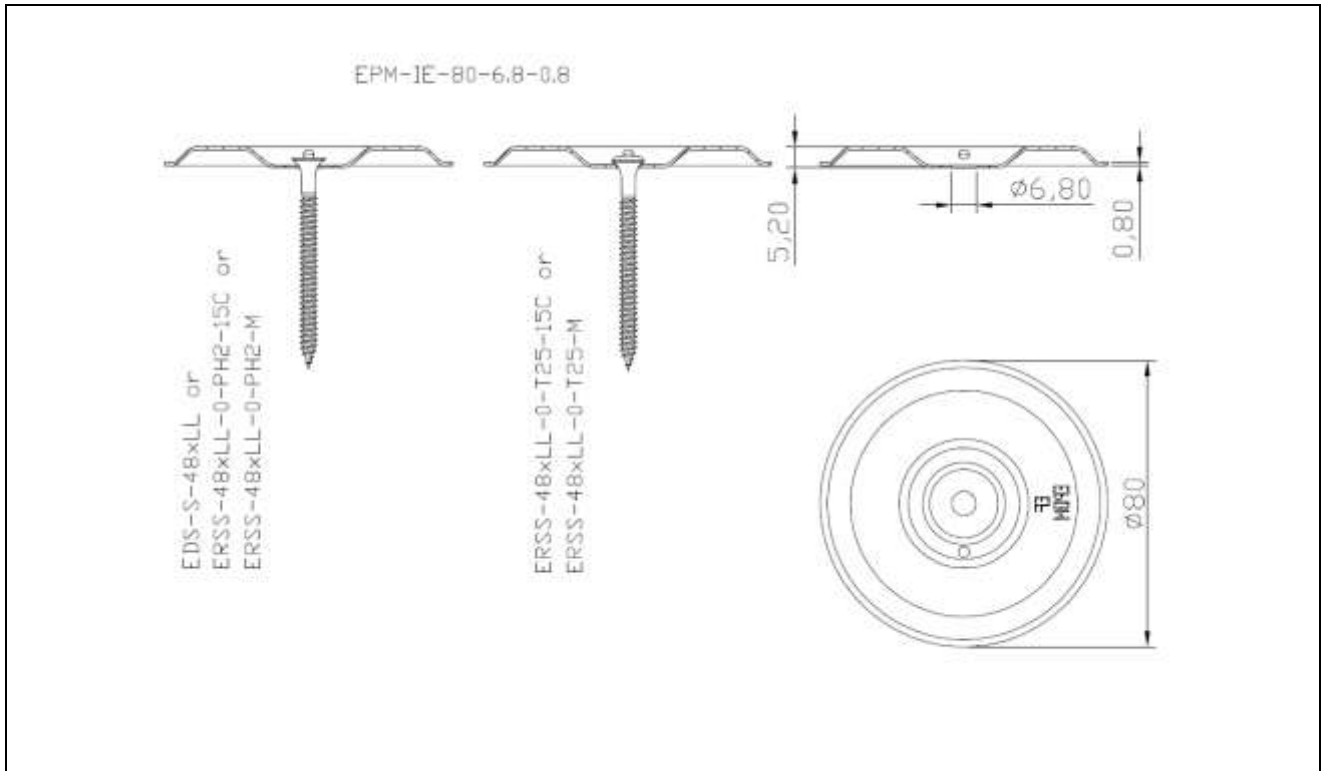
Eurofast Flat Roof Fasteners	Annex A.23 of European Technical Assessment ETA-23/0651
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



Eurofast Flat Roof Fasteners
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

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<p style="text-align: center;">EPM-1T-80-6.8-0.8</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	
<p style="text-align: center;">EPM-T-IE-80-13,6-0.8 + KMT-15xLL or EPM-T-IE-80-13,6-0.8 + EPT-15xLL-PA</p> <p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p> <p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>	
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p> <p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	<p style="text-align: center;">Annex A.25 of European Technical Assessment ETA-23/0651</p>



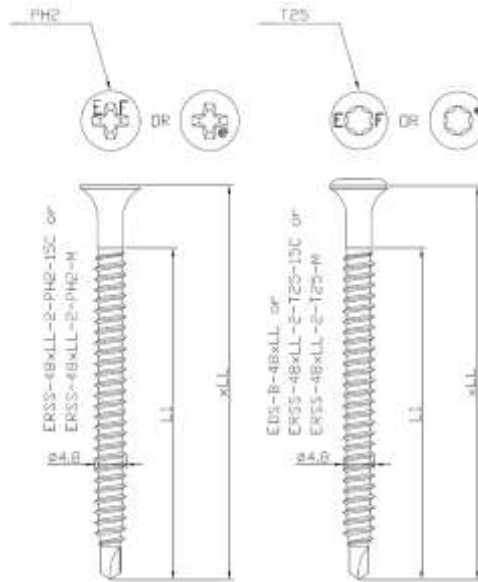
Eurofast Flat Roof Fasteners

EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)
 (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

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<p>DVP-DL-70N + TRP-45xLL or EPM-EDL-70N-20-0.5 + EPT-45xLL-PA</p>	
<p>EDS-S-48xLL or ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M</p>	<p>ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M</p>
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex A.27 of European Technical Assessment ETA-23/0651</p>
<p>EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)</p>	



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)						
t [mm]	Steel S320GD*					
	0,70	0,75	0,80	0,88	1,00	1,25
EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	1,18	1,50	1,60	1,60	1,65	2,26
ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)	1,18	1,50	1,60	1,60	1,65	2,26

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	1,12	1,20	1,22	1,18	1,08	1,29	1,78
ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)	1,12	1,20	1,22	1,18	1,08	1,29	1,78

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)	DVP-EF-51NS (EPM-B-51N-5.4-0.84)	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	DVP-EF-7005N (EPM-70N-5.1-0.5)	DVP-EF-7007H (EPM-70H-6.0-0.7)	-	-	EPM-IT-80-6.8-0.8
	-	DVP-EF-7007N (EPM-70N-6.0-0.7)	-	-	EPM-IE-80-6.8-0.8
EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	2,36	2,91	3,87	2,93	2,92
ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)	2,36	2,91	3,87	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	2,64	1,68	1,78
ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)
	DVP-EF-5010DFR (EPM-50D-4.85-1.0)	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)
	DVP-EF-7070D (EPM-7070D-4.85-1.0)	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
	DVP-EF-7010DFR (EPM-70D-4.85-1.0)	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
	DVP-EF-8240D (EPM-8240D-4.85-1.0)	-	-	-	
	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)	-	-	-	
	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)	-	-	-	
	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)	-	-	-	
	DVP-EFF-8040D (EPM-8040D-4.85-1.0)	-	-	-	
EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	5,18	5,05	4,43	3,89	2,96
ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)	5,18	5,05	4,43	3,89	2,96

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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Screw:

EDS-B-48xLL (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)
 ERSS-48xLL-2-PH2-15C (ERSS-48xLL-2-PH2-M)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240H	(EPM-8240H-7.0-1.0)
DVP-EF-5010DFR	(EPM-50D-4.85-1.0)	DVP-EF-8240XH	(EPM-8240XH-4.85-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-EFB-51NS	(EPM-B-51N-5.4-0.84)
DVP-EF-7070D	(EPM-7070D-4.85-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	DVP-EFB-8240D	(EPM-B-8240D-4.85-1.0)
DVP-EF-7010DFR	(EPM-70D-4.85-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-EF-7005D	(EPM-70D-5.0-0.5)	DVP-EFZK-8240D	(EPM-ZK-8240D-4.85-1.0)
DVP-EF-7007D	(EPM-70D-6.0-0.7)	DVP-EFF-8040D	(EPM-8040D-4.85-1.0)
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7005N	(EPM-70N-5.1-0.5)	EPM-IE-80-6.8-0.8	
DVP-EF-7007N	(EPM-70N-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8240D	(EPM-8240D-4.85-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)

Pressure plate with tube:

BIO-45xLL (EPT-45xLL-BIO)
 TRP-45xLL (EPT-45xLL-PA)
 BTRP-45xLL (EPT-B-45xLL-PA)
 TWP-8040xLL (EPT-8040xLL-PA)
 TLK-45xLL (EPT-45xLL-PP)
 HTLK-45xLL (EPT-O-45xLL-PP)
 TLK-75xLL (EPT-75xLL-PP)

Termination bar:

EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
 EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
 EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)
 EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

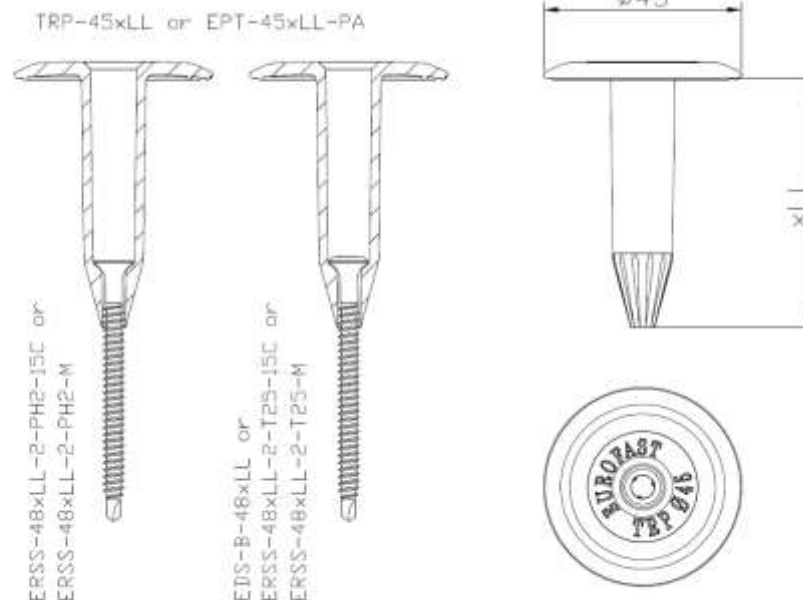
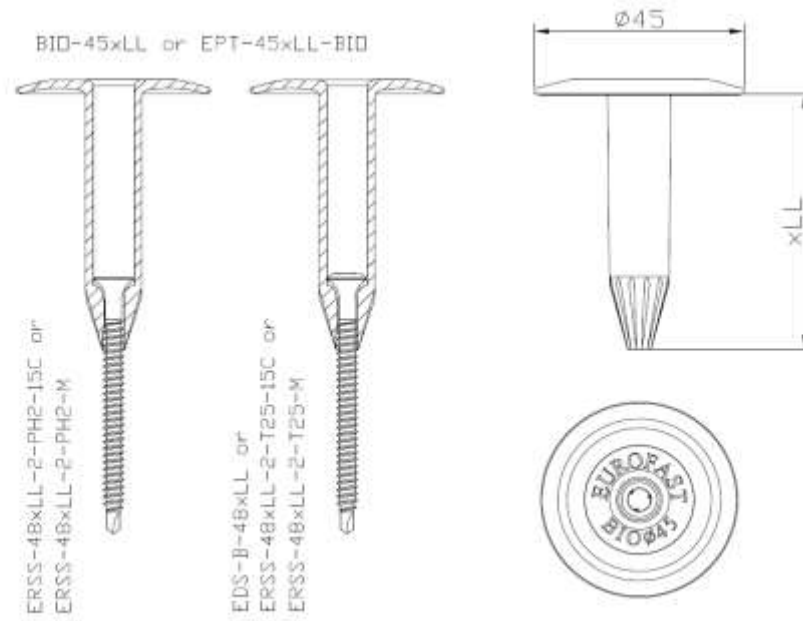
Max. drilling capacity in steel substrate:	2x1,25 mm
Head type:	Bugle Head / Raised Bugle Head
Recess:	PH2 / TX25
Fixing in steel substrate:	Min. 20 mm of the screw fixed through the steel sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel substrate	15 kg
- in wooden and wood-based substrate:	30 kg
Installation tool speed:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
 (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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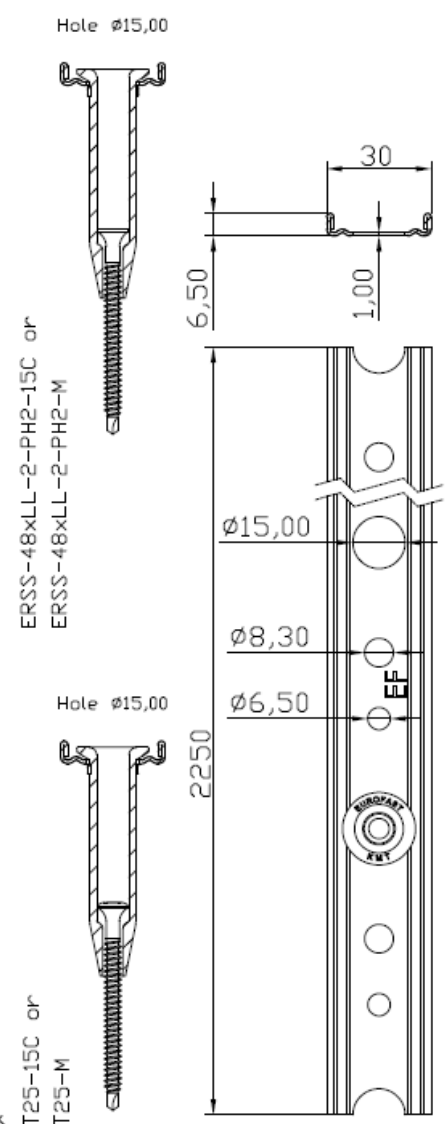
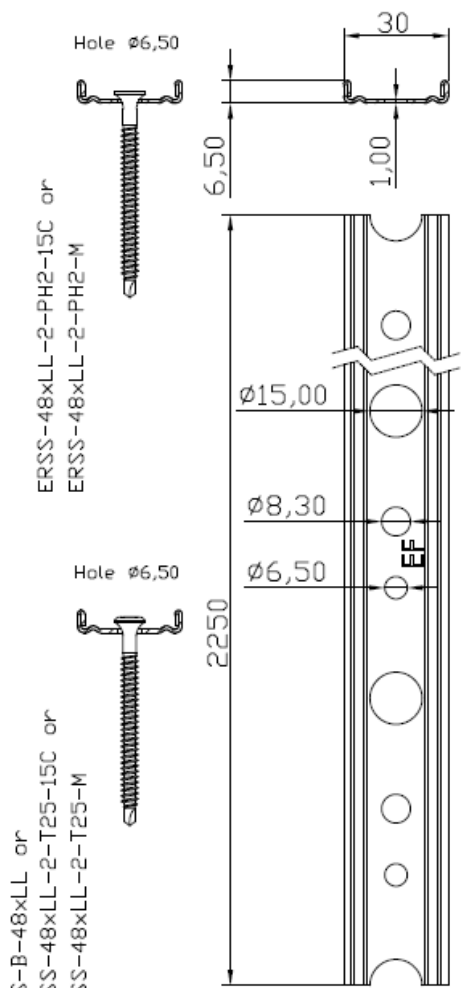
Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

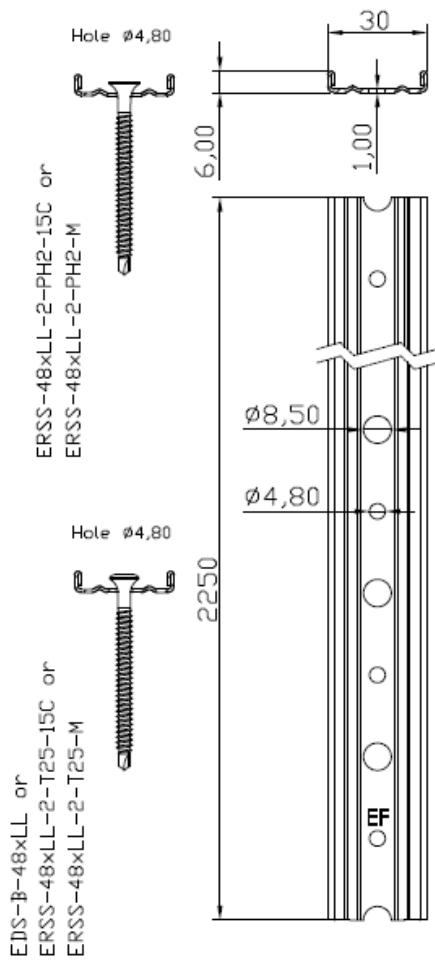
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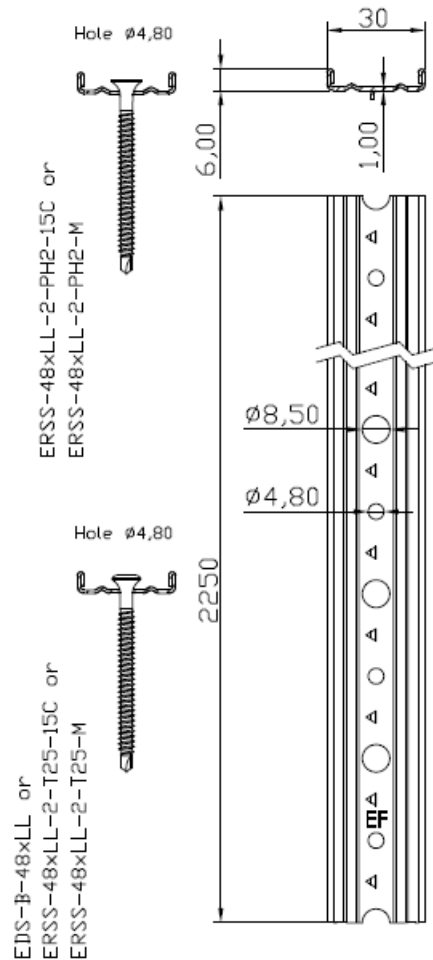
<p style="text-align: center;">BTRP-45xLL or EPT-B-45xLL-PA</p> <p style="text-align: center;">ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p style="text-align: center;">EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p style="text-align: center;">TWP-8040xLL or EPT-8040xLL-PA</p> <p style="text-align: center;">ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p style="text-align: center;">EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex B.5</p>
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>of European Technical Assessment ETA-23/0651</p>

<p>EDF-BAR-F-TUBE + KMT-15xLL or ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA</p>  <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>Hole ø15,00</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p> <p>Hole ø15,00</p>	<p>EDF-BAR-F-TUBE or ETM-T-2250-30-6.5-8.3-15.0-1.0</p>  <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>Hole ø6,50</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p> <p>Hole ø6,50</p>
<p>Eurofast Flat Roof Fasteners</p>	
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>Annex B.6 of European Technical Assessment ETA-23/0651</p>

EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

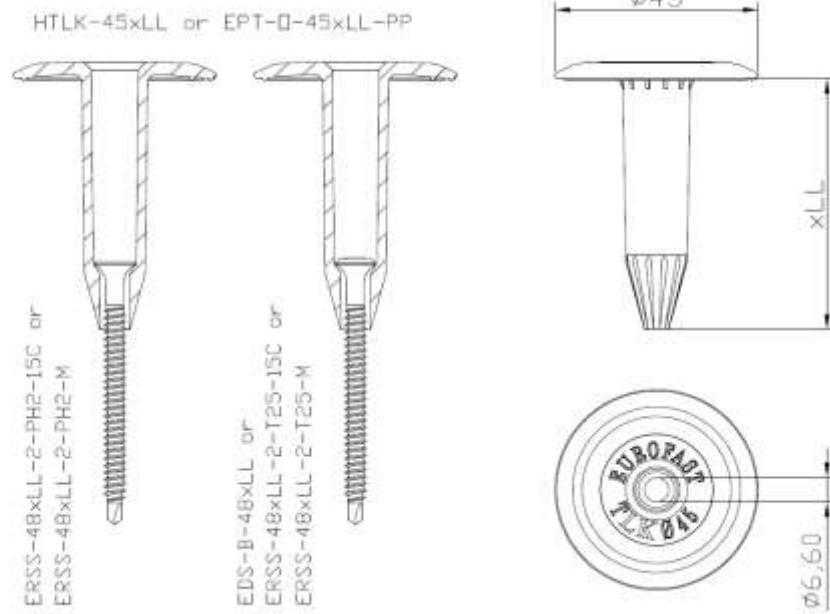
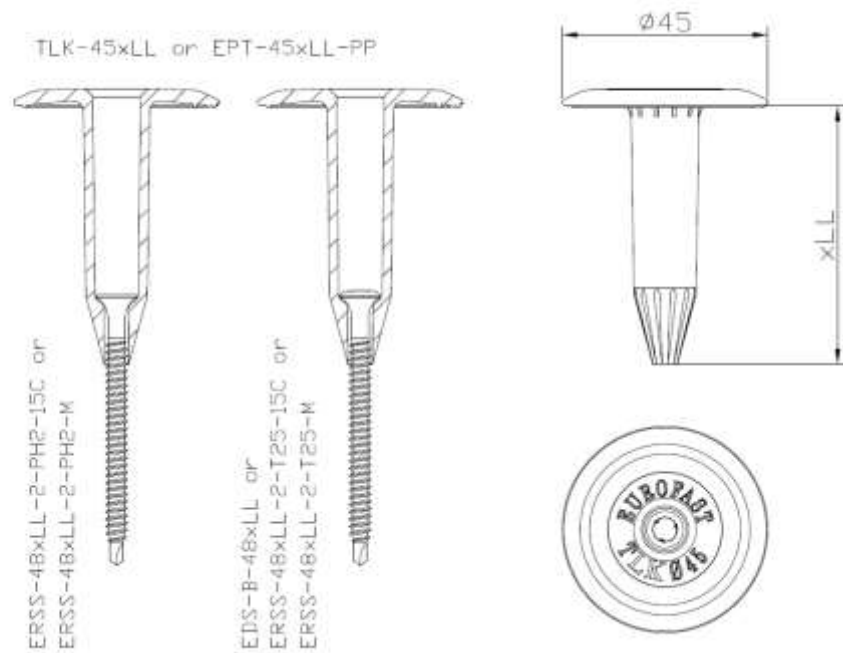


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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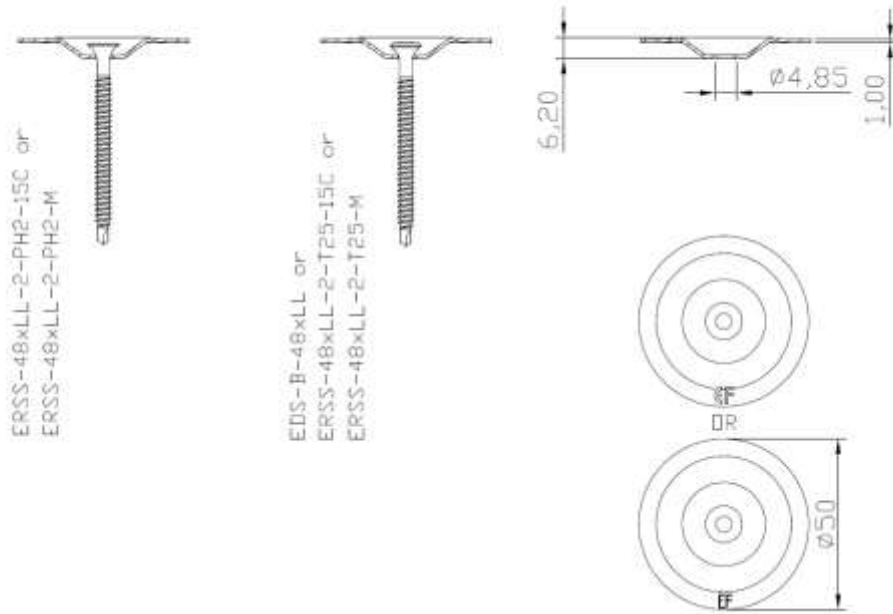
Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

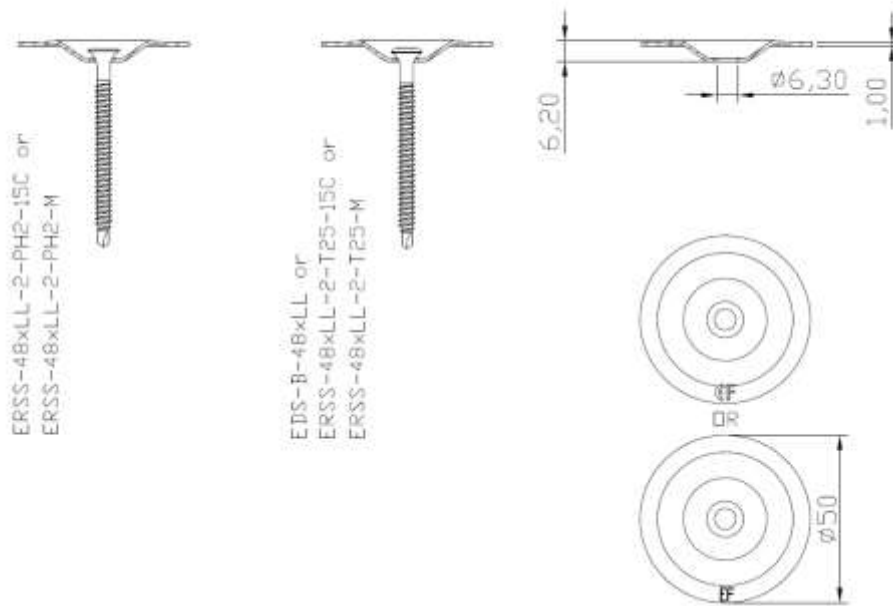
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<p>TLK-75xLL or EPT-75xLL-PP</p>	
<p>DVP-EF-4010N or EPM-40N-6.0-1.0</p>	
<p>Eurofast Flat Roof Fasteners</p>	
<p>Annex B.9 of European Technical Assessment ETA-23/0651</p>	
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	

DVP-EF-5010DFR or EPM-50D-4.85-1.0



DVP-EF-5010D or EPM-50D-6.3-1.0

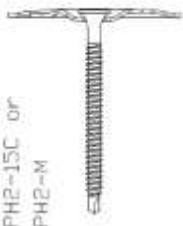
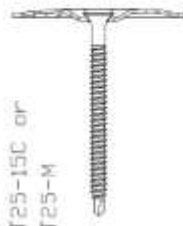
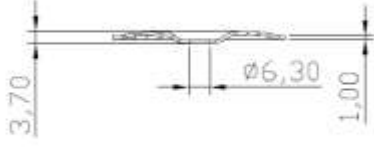
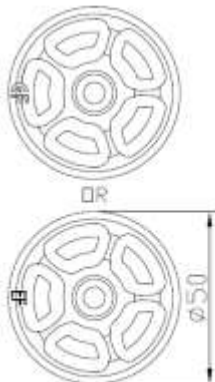
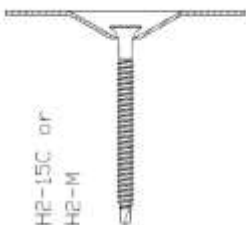
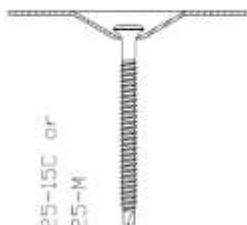
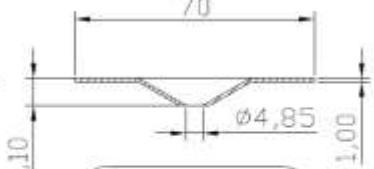
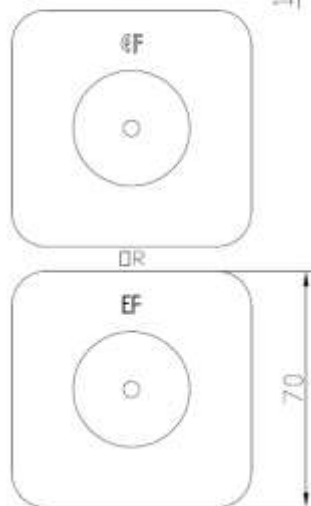


Eurofast Flat Roof Fasteners

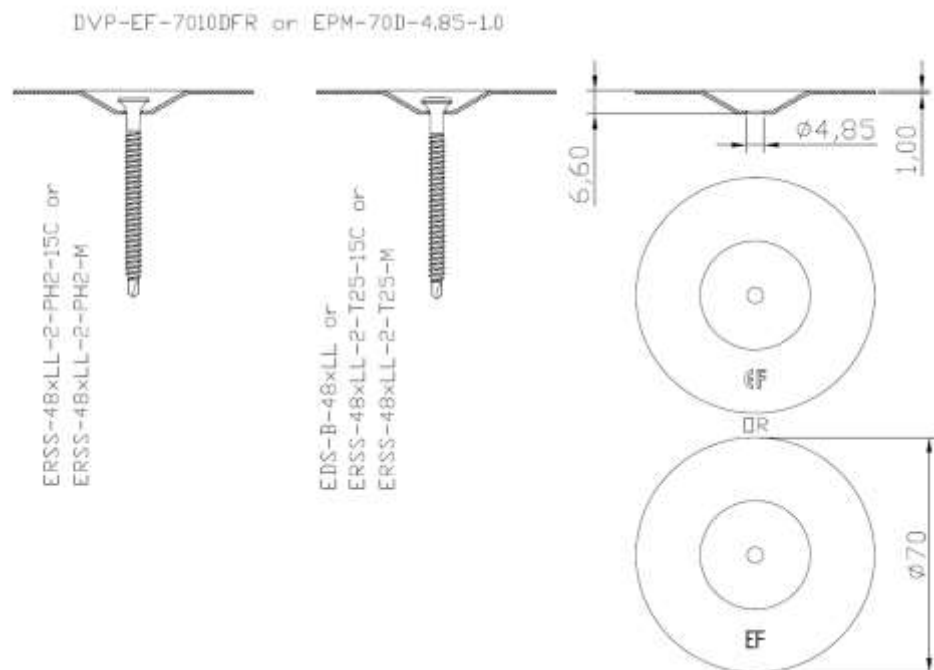
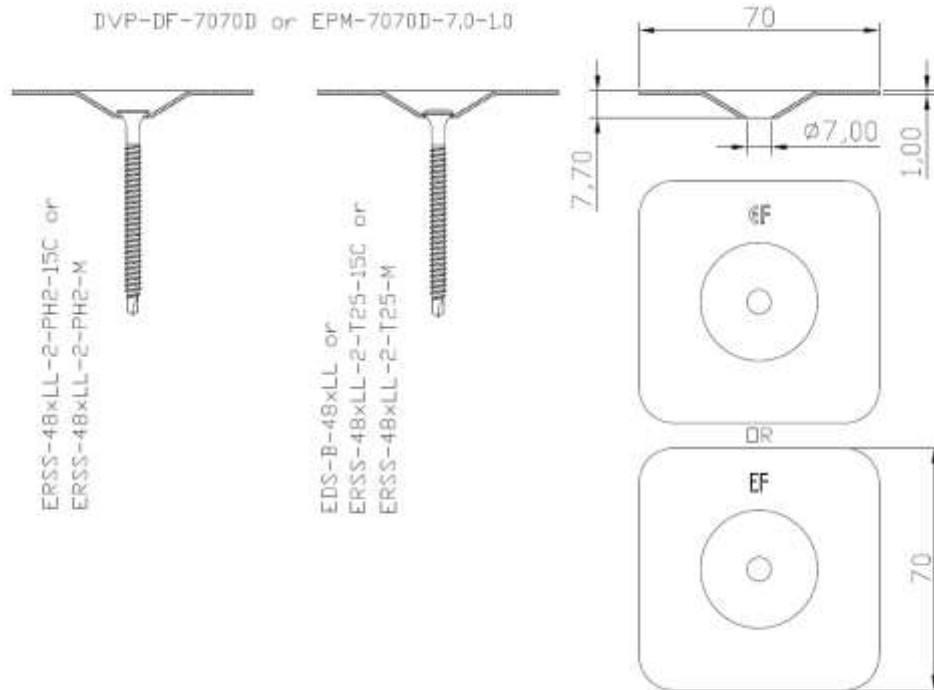
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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<p style="text-align: center;">DVP-EF-5010N or EPM-50N-6.3-1.0</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> </div> <div style="text-align: center;">  <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p> </div> </div> <div style="text-align: right; margin-top: 20px;">  </div> <div style="text-align: right; margin-top: 20px;">  </div>	
<p style="text-align: center;">DVP-EF-7070D or EPM-7070D-4.85-1.0</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> </div> <div style="text-align: center;">  <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p> </div> </div> <div style="text-align: right; margin-top: 20px;">  </div> <div style="text-align: right; margin-top: 20px;">  </div>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex B.11 of European Technical Assessment ETA-23/0651</p>

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

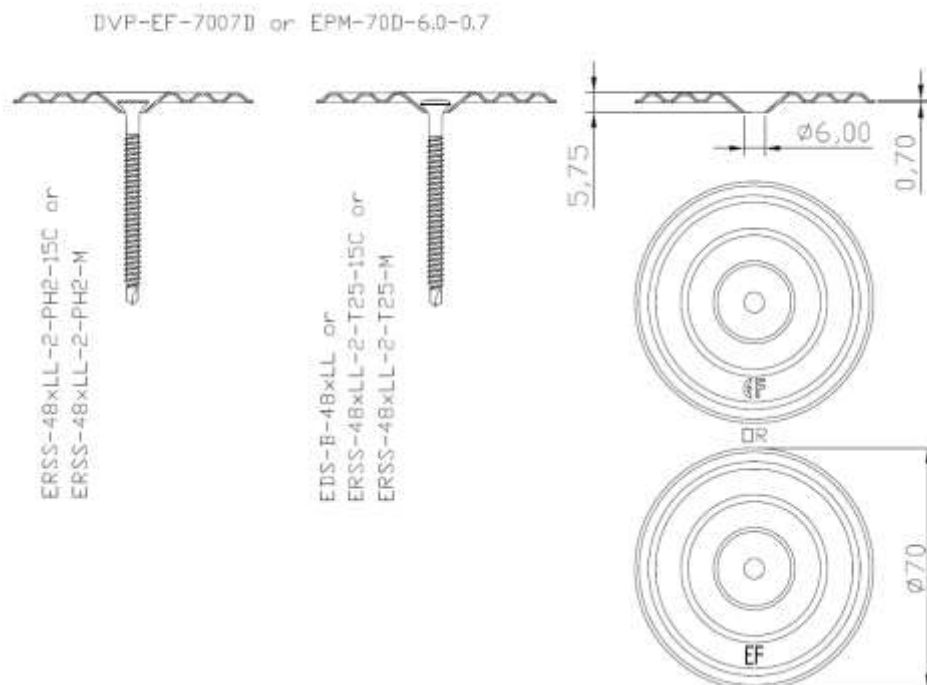
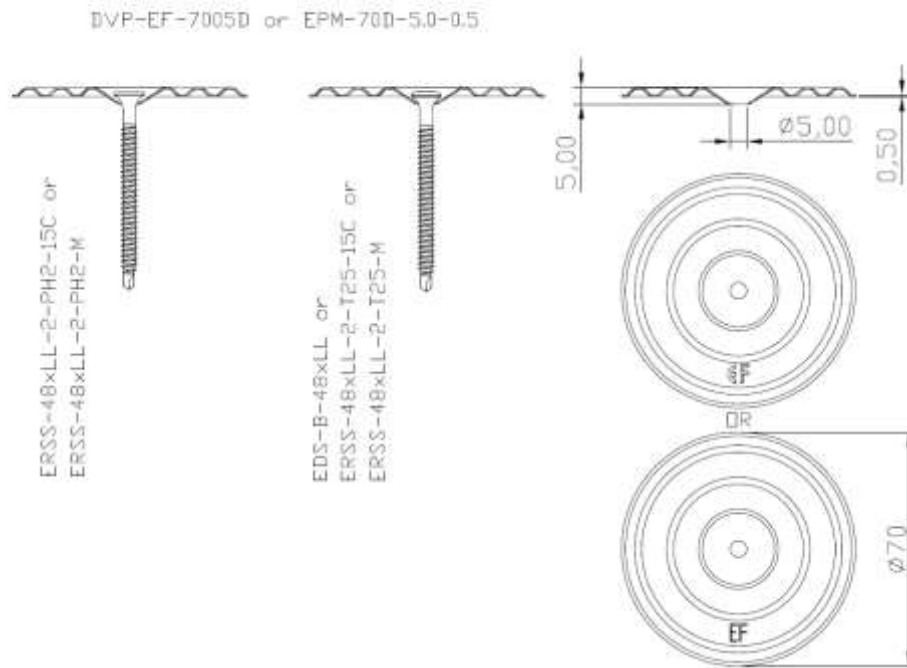


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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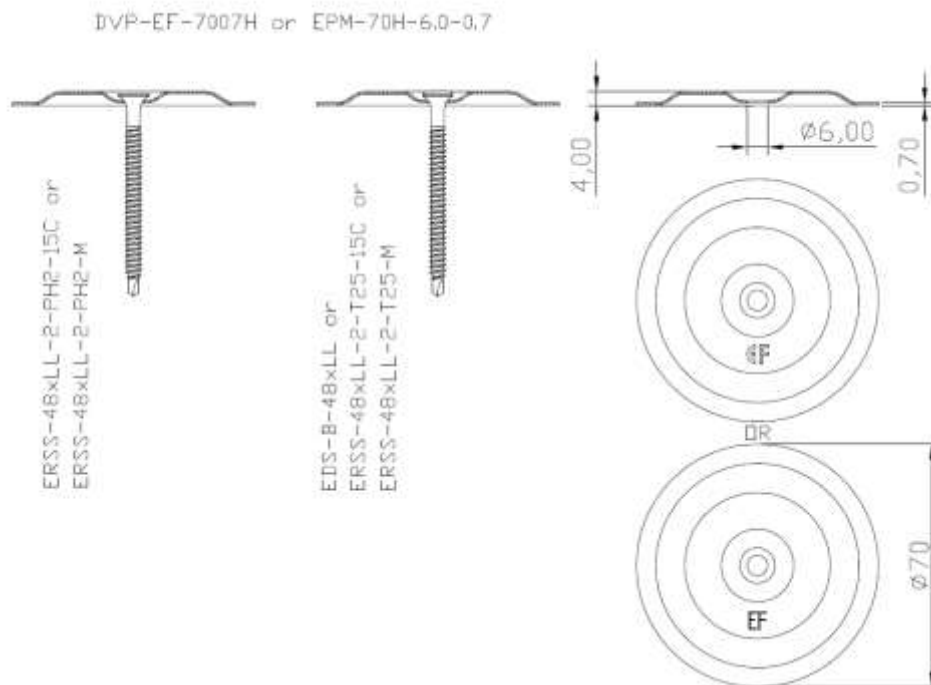
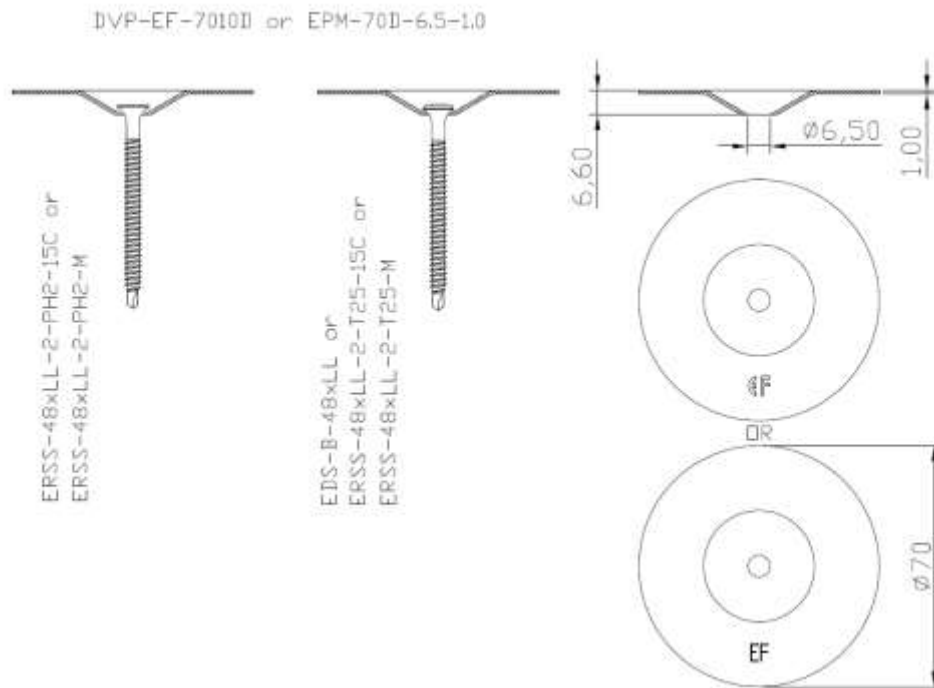


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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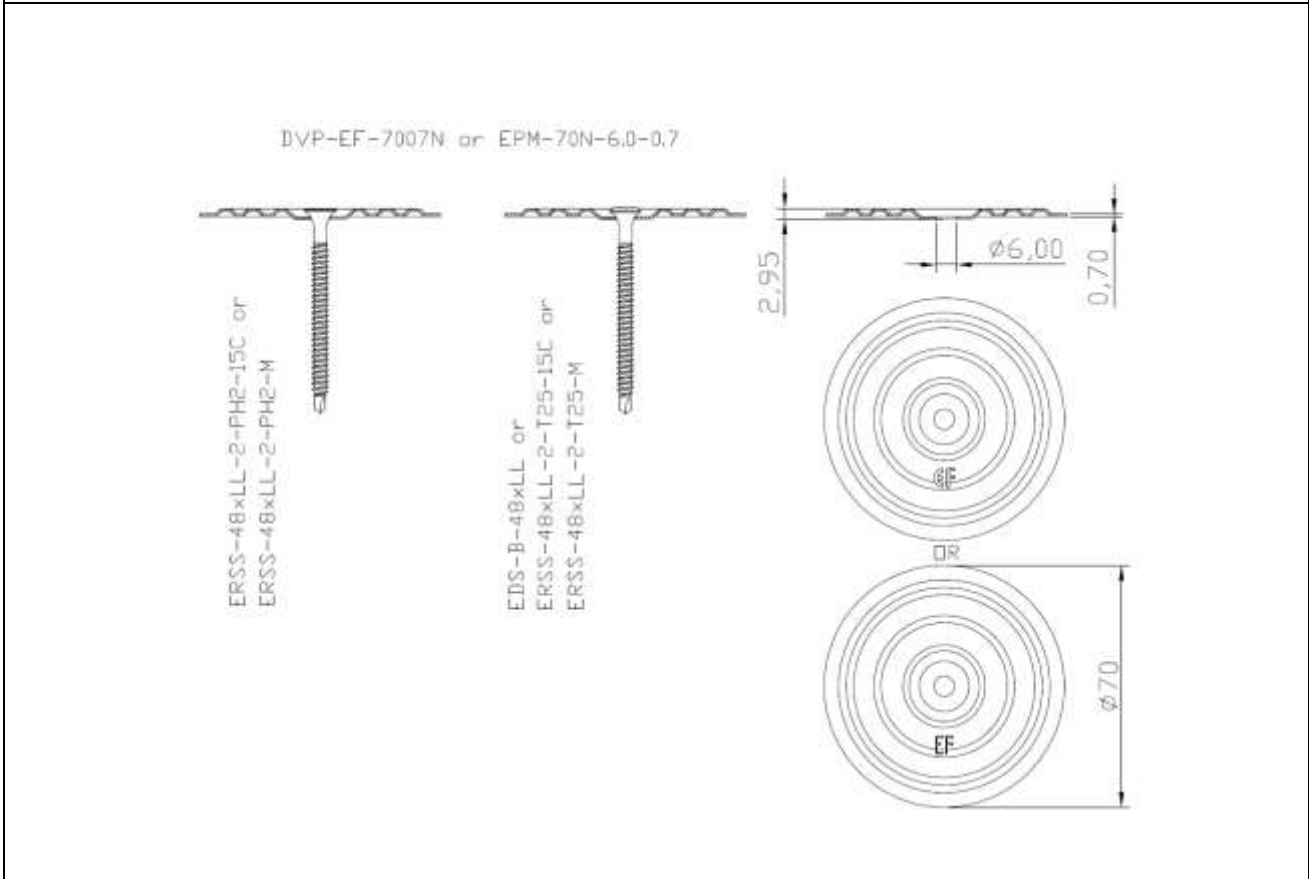
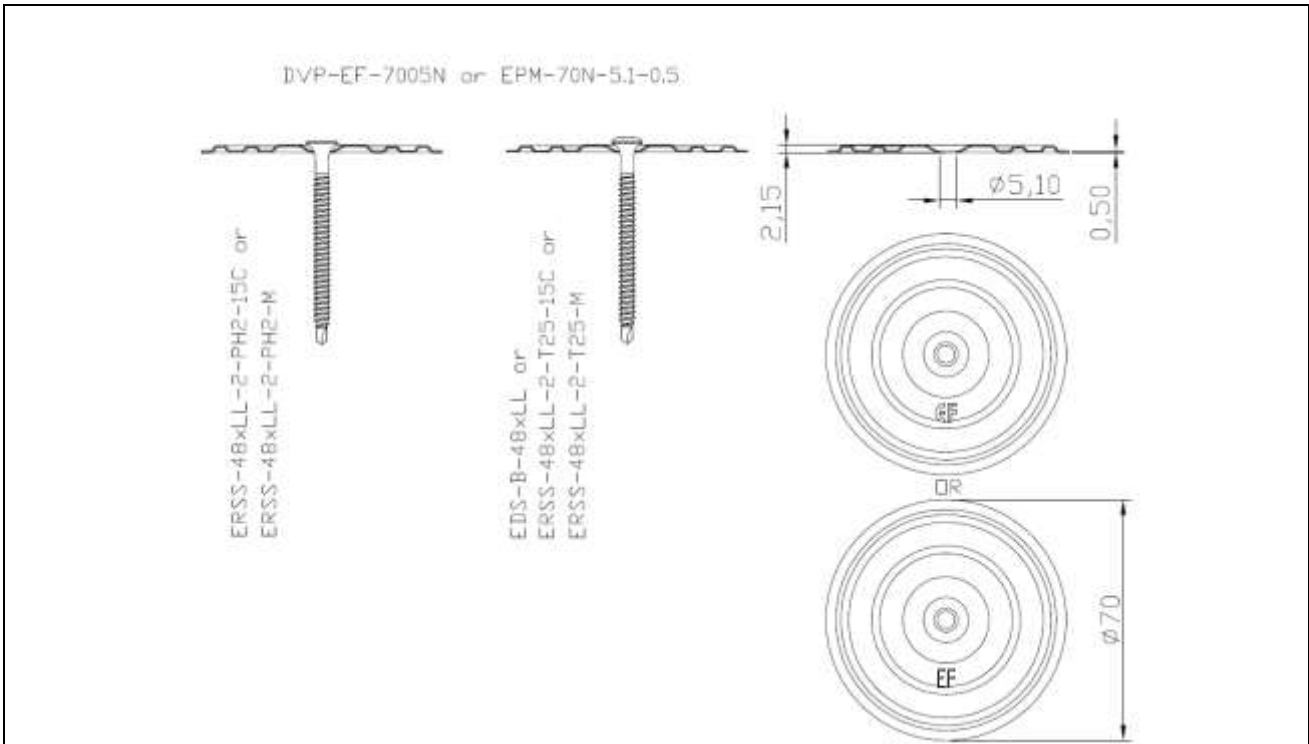


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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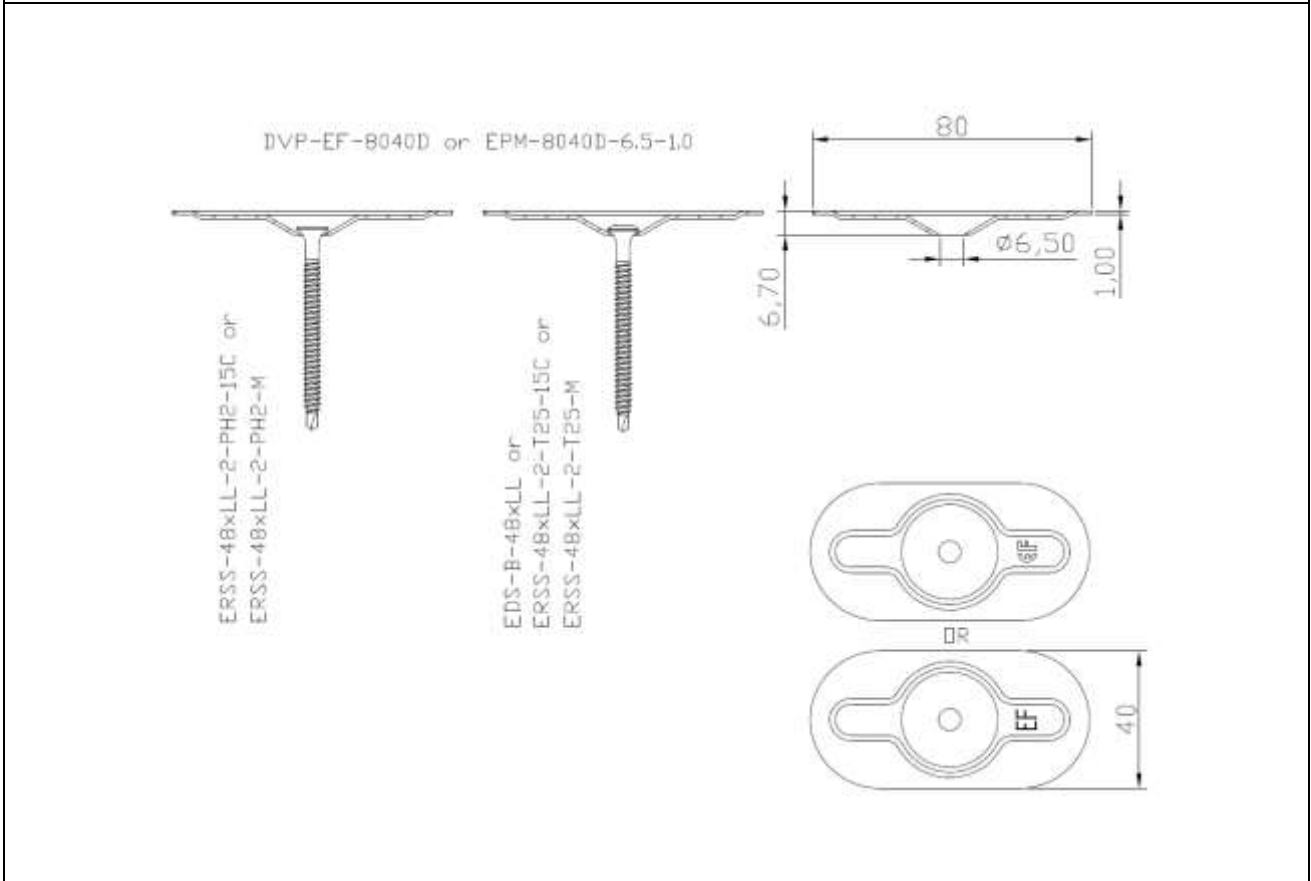
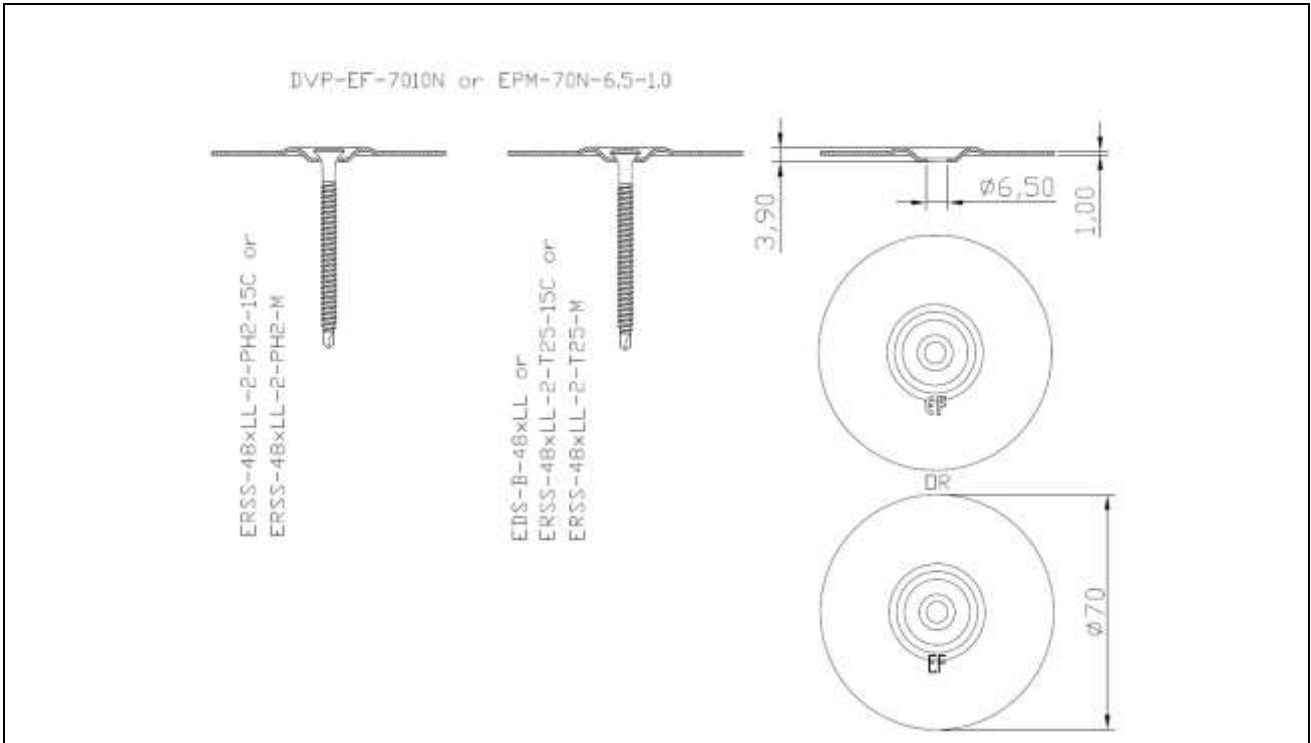


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

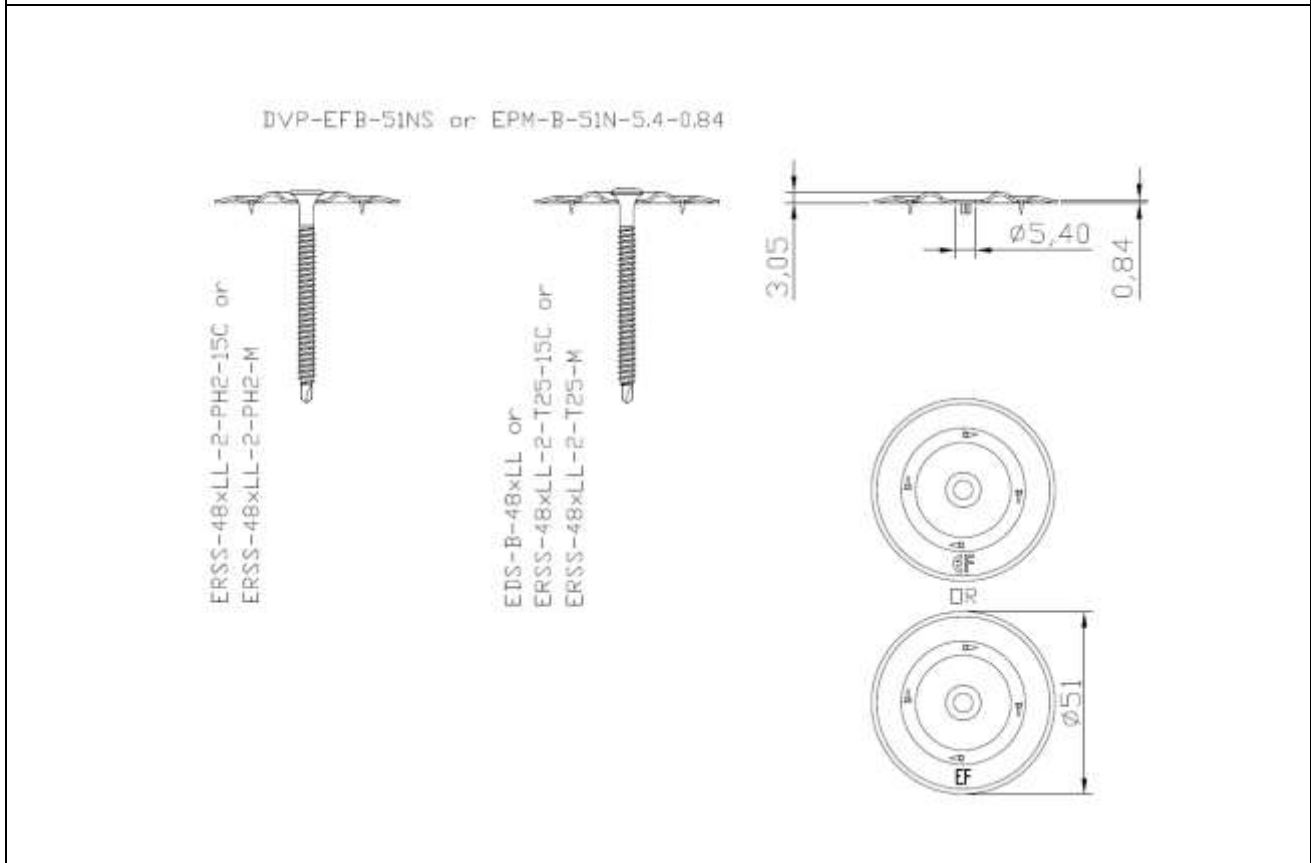
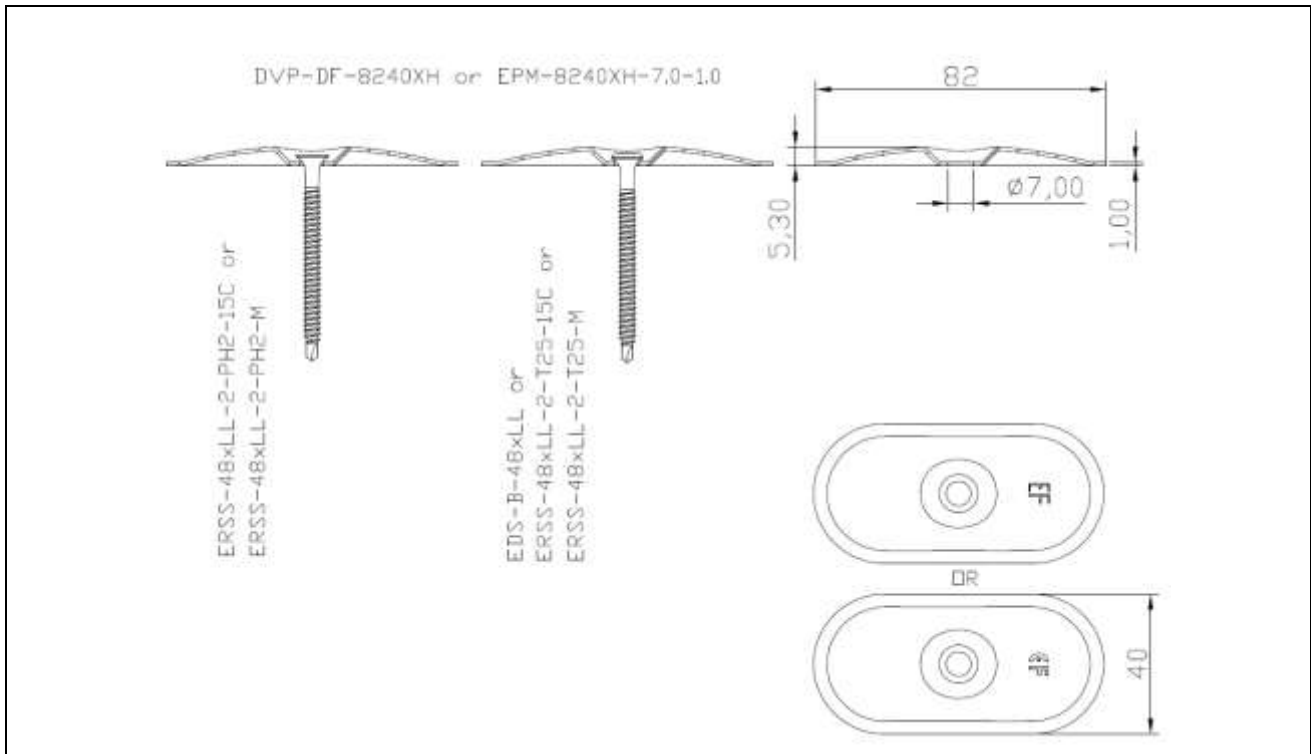
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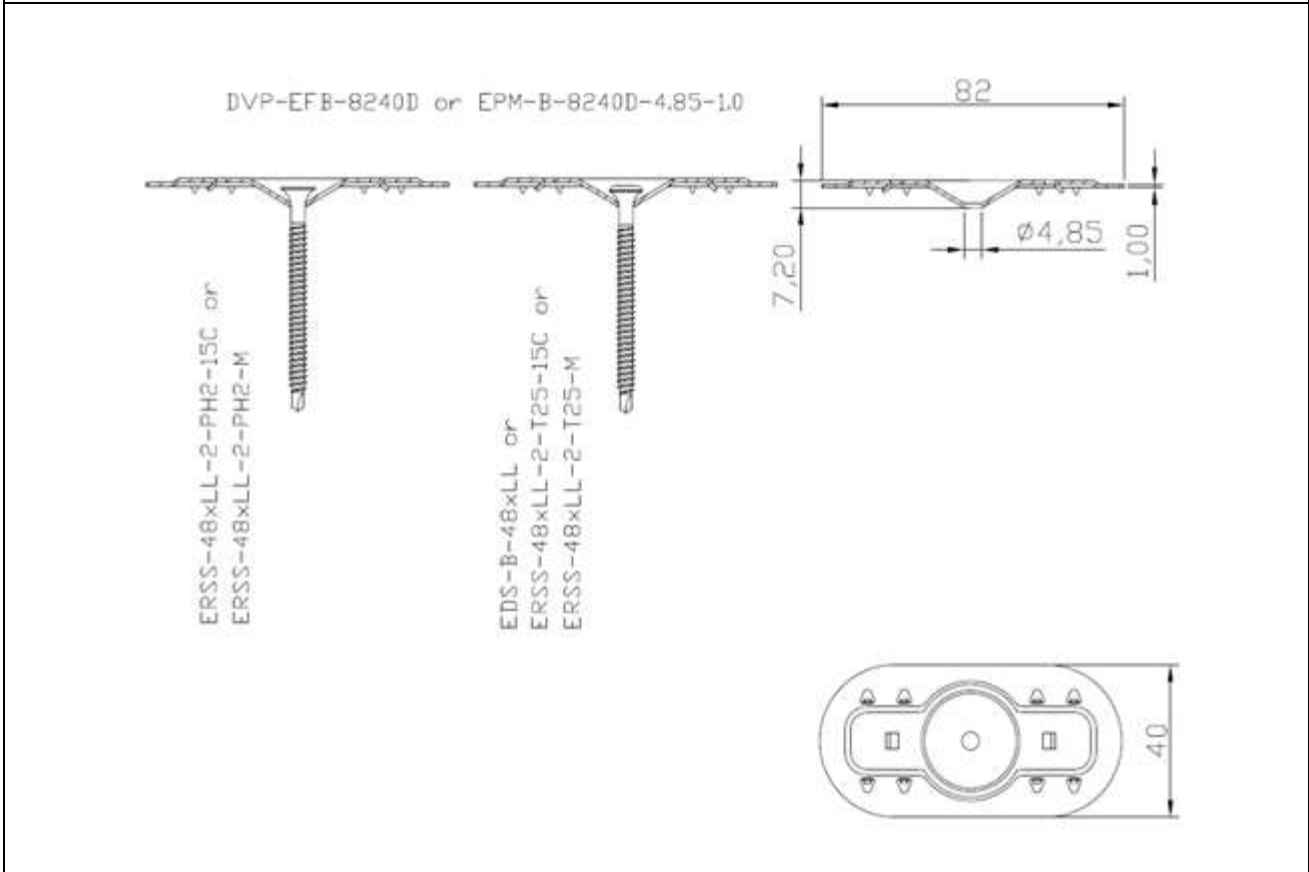
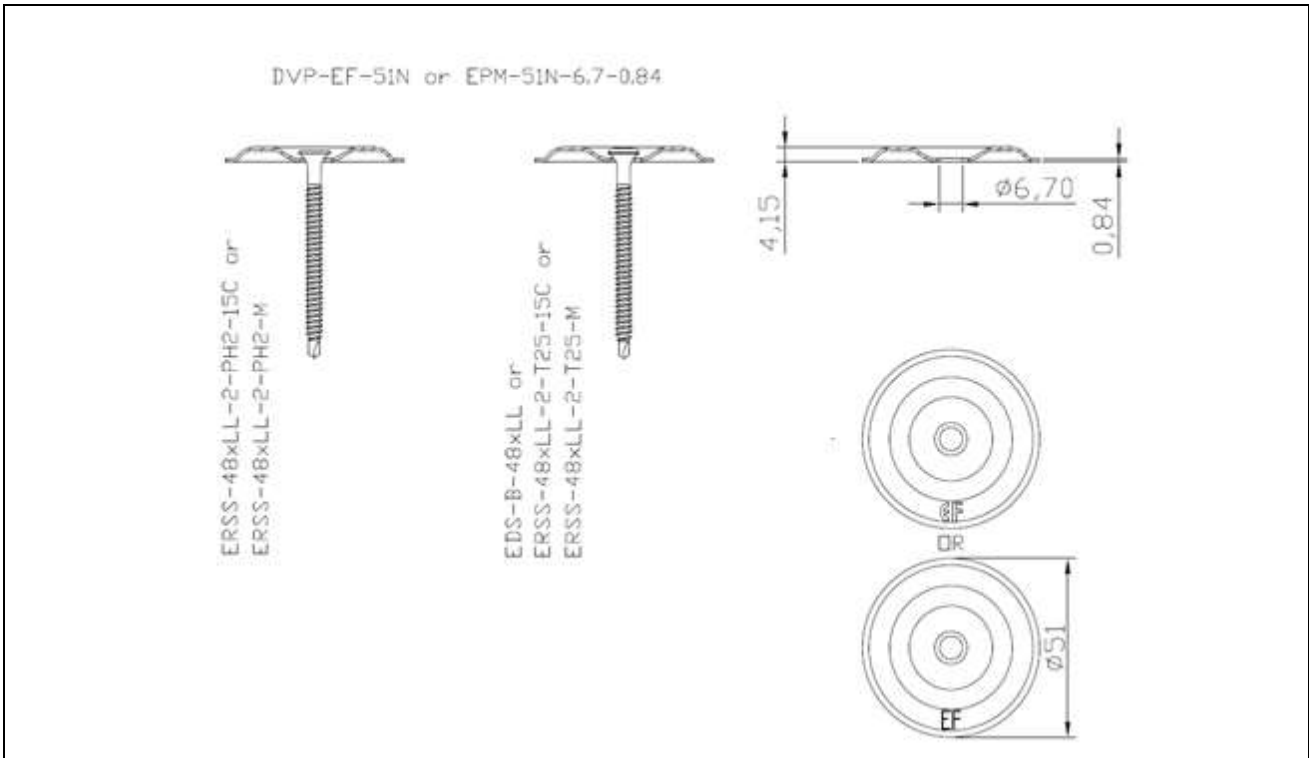
<p style="text-align: center;">DVP-EF-8040N or EPM-8040N-6.5-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p style="text-align: center;">DVP-EF-8240D or EPM-8240D-4.85-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>Annex B.17 of European Technical Assessment ETA-23/0651</p>

<p style="text-align: center;">DVP-DF-8240D or EPM-8240D-7.00-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	<p style="text-align: center;">DVP-DF-8240H or EPM-8240H-7.0-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>	<p style="text-align: center;">Annex B.18</p>
<p style="text-align: center;">EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p style="text-align: center;">of European Technical Assessment ETA-23/0651</p>

<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13,6-1,0 + EPT-15xLL-PA</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	<p>Annex B.19 of European Technical Assessment ETA-23/0651</p>
<p>DVP-EF-8240XH or EPM-8240XH-4.85-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	<p>Annex B.19 of European Technical Assessment ETA-23/0651</p>
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>Annex B.19 of European Technical Assessment ETA-23/0651</p>



Eurofast Flat Roof Fasteners	Annex B.20 of European Technical Assessment ETA-23/0651
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	



Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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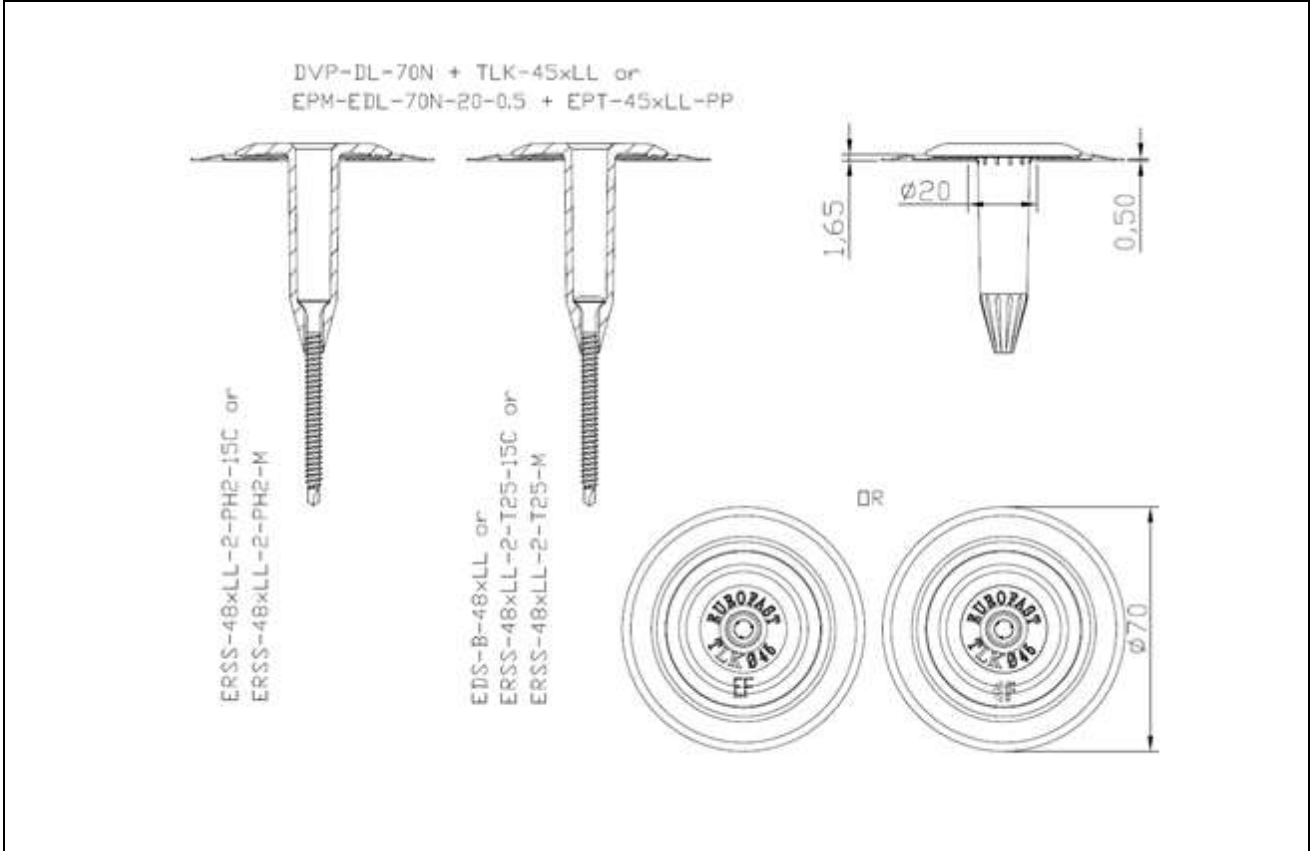
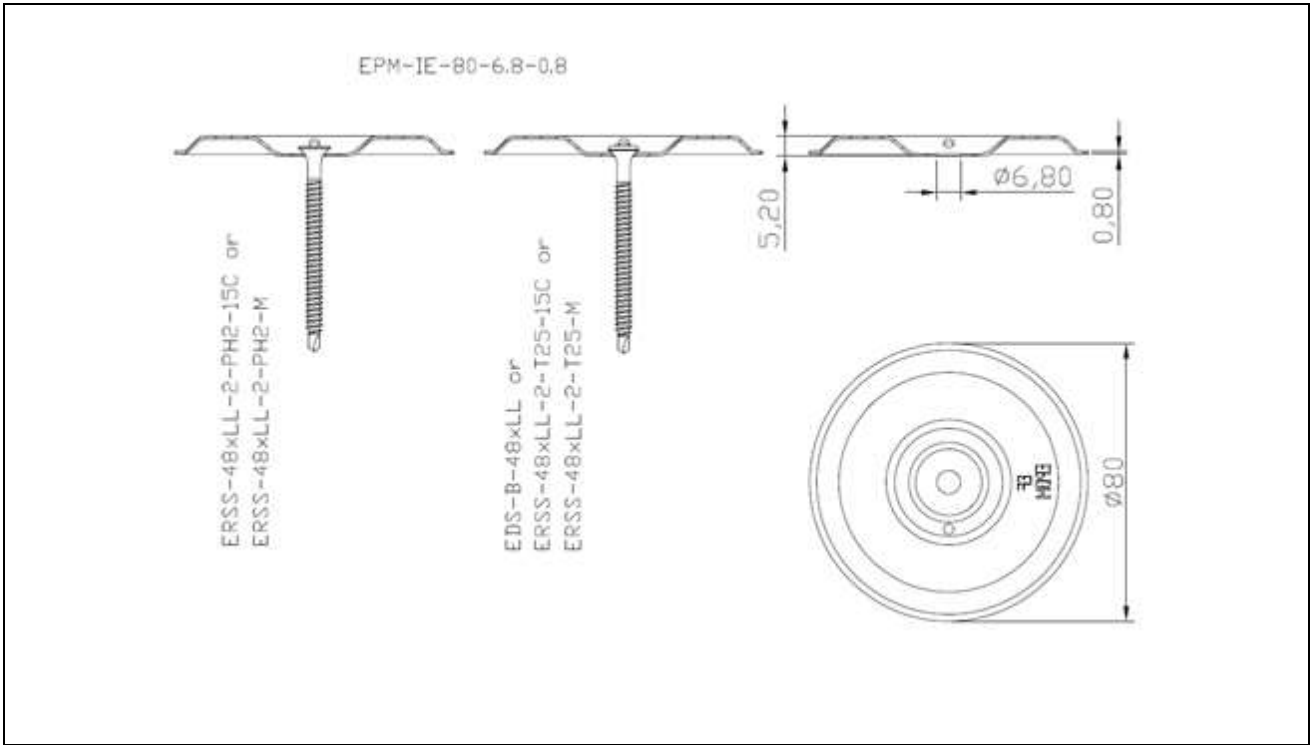
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<p style="text-align: center;">DVP-EFZK-8240D or EPM-ZK-8240D-4.85-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>	<p style="text-align: center;">Annex B.22 of European Technical Assessment ETA-23/0651</p>

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

<p style="text-align: center;">DVP-EFF-8040D or EPM-8040D-4.85-1.0</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	<p>EPM-T-IP-80-13.6-0.8 + KMT-15xLL or EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>
<p style="text-align: center;">EPM-T-IP-80-13.6-0.8 + KMT-15xLL or EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	<p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>
<p>Eurofast Flat Roof Fasteners</p>	
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>Annex B.23 of European Technical Assessment ETA-23/0651</p>

<p style="text-align: center;">EPM-IP-80-6.8-0.8</p>	
	<p style="text-align: center;">EPM-T-IT-80-13.6-0.8 + KMT-15xLL or EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA</p>
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>Annex B.24 of European Technical Assessment ETA-23/0651</p>

<p>EPM-IT-80-6.8-0.8</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p>EPM-T-IE-80-13.6-0.8 + KMT-15xLL or EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA</p> <p>ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M</p> <p>EDS-B-48xLL or ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex B.25</p>
<p>EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)</p>	<p>of European Technical Assessment ETA-23/0651</p>

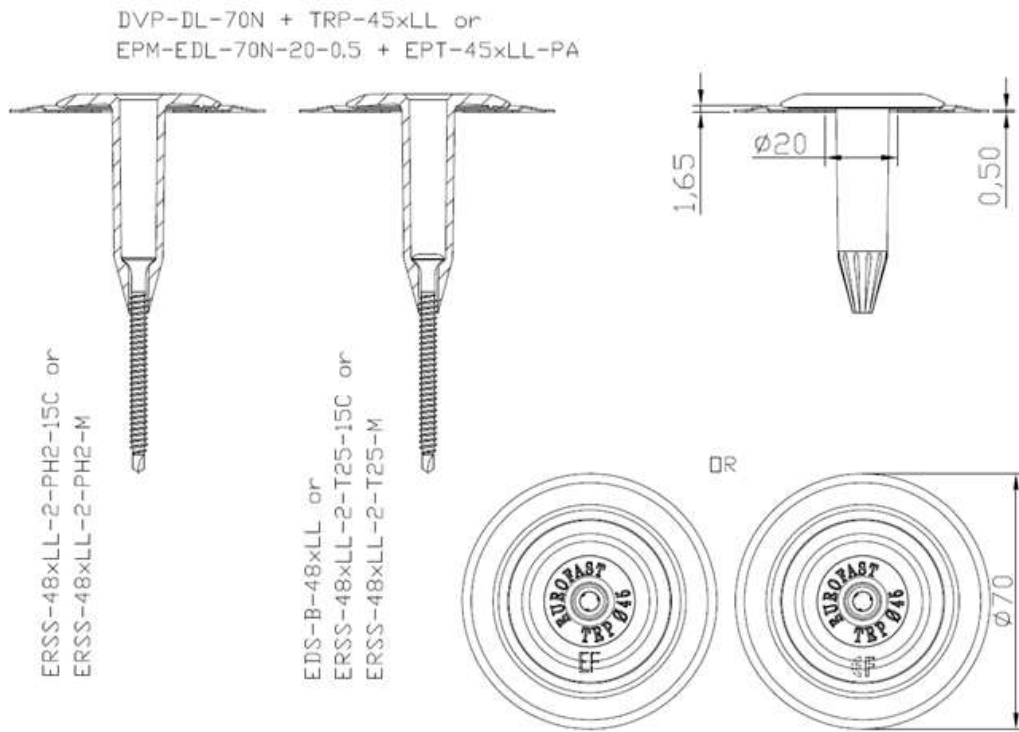


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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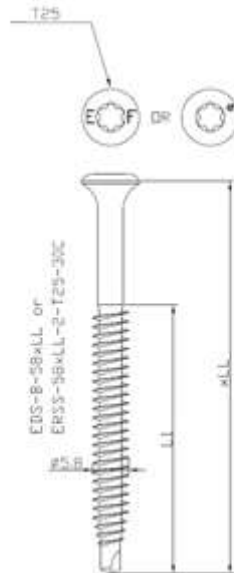


Eurofast Flat Roof Fasteners

EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)						
t [mm]	Steel S320GD *					
	0,70	0,75	0,80	0,88	1,00	1,25
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	1,72	1,91	2,35	2,35	2,57	3,14

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	1,29	1,51	1,62	1,54	1,39	1,51	1,48

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 + 5 of EAD 030351-00-0402)			
	DVP-EFB-51NS (EPM-B-51N-5.4-0.84)	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	-	-	EPM-IT-80-6.8-0.8
	-	-	EPM-IE-80-6.8-0.8
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	3,87	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7007H (EPM-70H-6.0-0.7)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-7007N (EPM-70N-6.0-0.7)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	5,05	4,43	3,89	2,96	2,91

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners	Annex C.2 of European Technical Assessment ETA-23/0651
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	

Screw:

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010D	(EPM-70D-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-EF-7007N	(EPM-70N-6.0-0.7)		
DVP-EF-7010N	(EPM-70N-6.5-1.0)		
DVP-EF-8040D	(EPM-8040D-6.5-1.0)		
DVP-EF-8040N	(EPM-8040N-6.5-1.0)		
DVP-DF-8240D	(EPM-8240D-7.0-1.0)		
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)		
DVP-EFB-51NS	(EPM-B-51N-5.4-0.84)		
DVP-EF-51N	(EPM-51N-6.7-0.84)		
DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)		
EPM-IP-80-6.8-0.8			
EPM-IT-80-6.8-0.8			

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

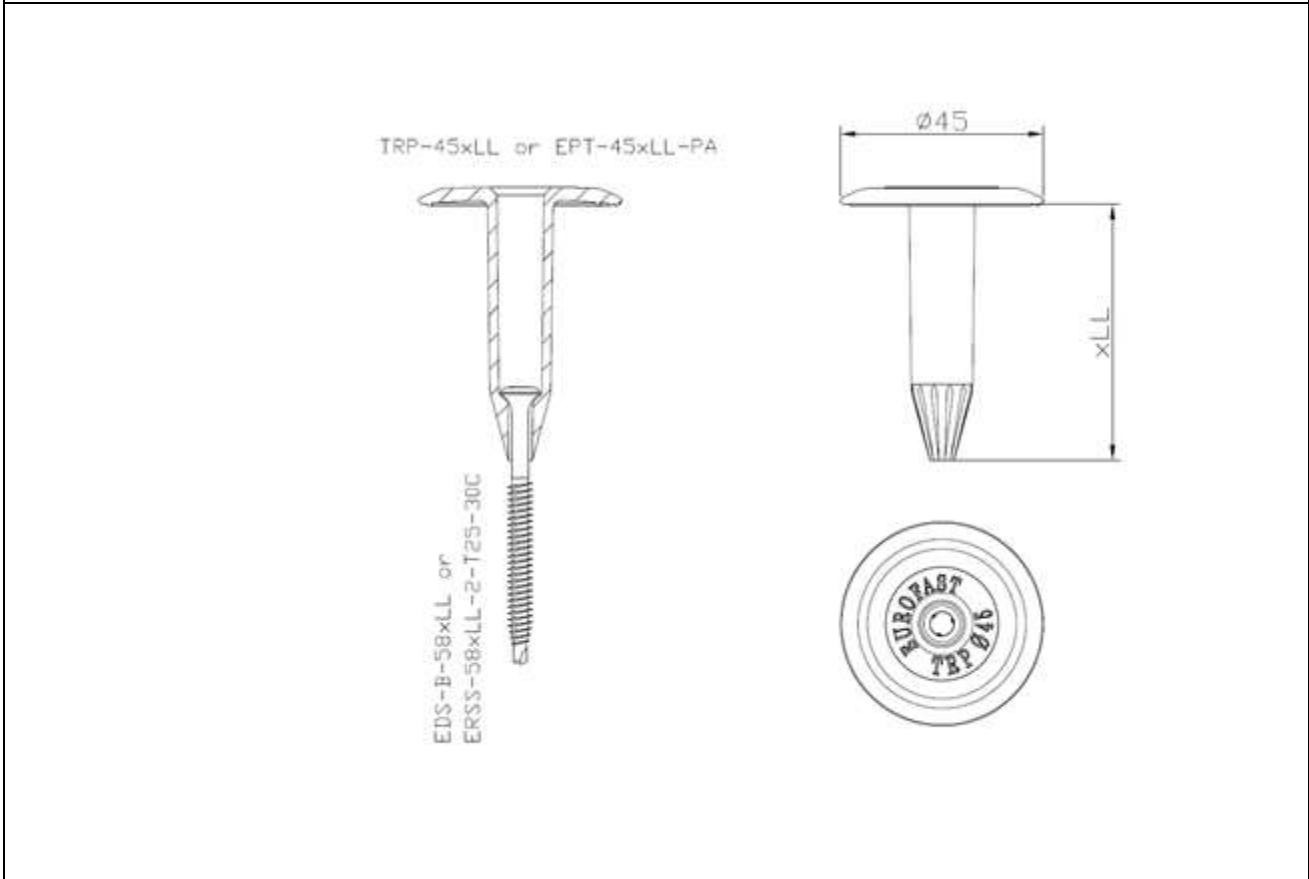
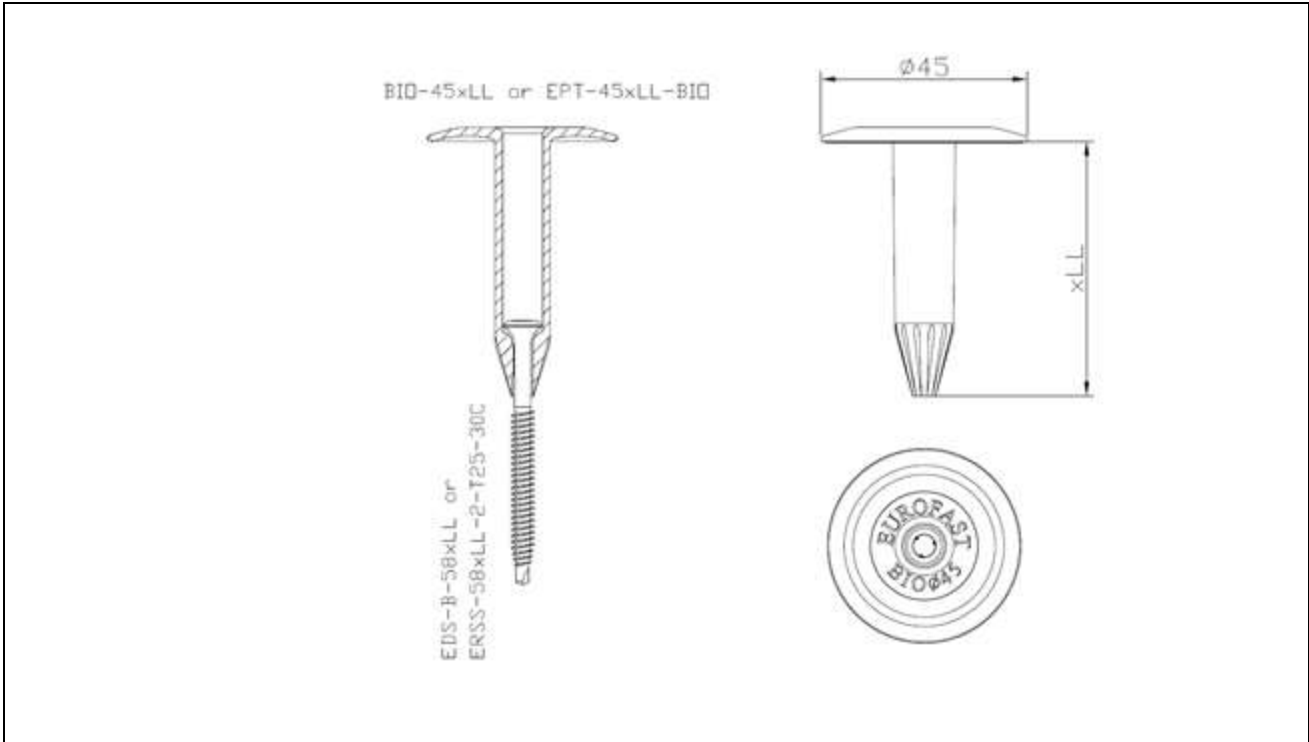
Max. drilling capacity in steel substrate:	2x1,25 mm
Head type:	Raised Bugle Head
Recess:	TX25
Fixing in steel substrate:	Min. 20 mm of the screw fixed through the steel sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel substrate	15 kg
- wooden and wood-based substrate:	30 kg
Installation tool speed:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

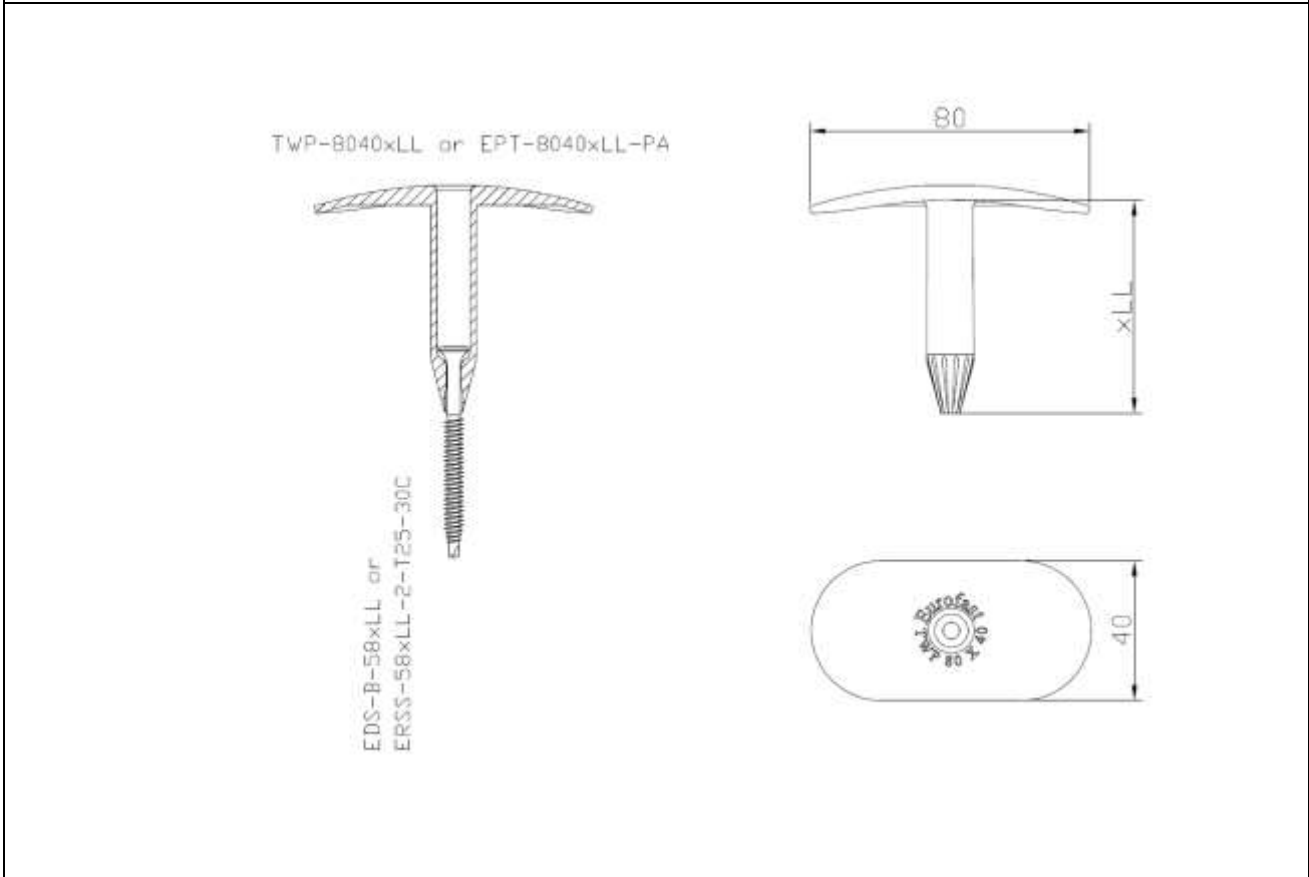
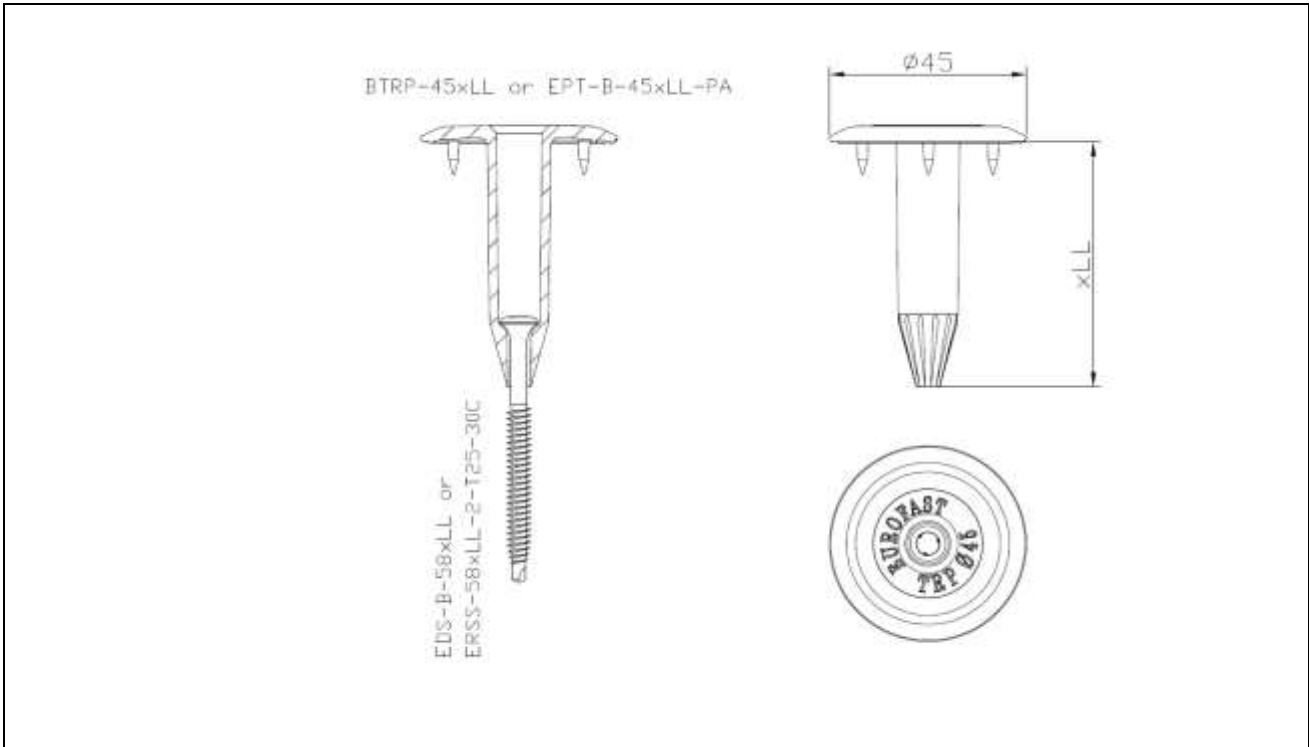
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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<p>Eurofast Flat Roof Fasteners</p>	<p>Annex C.4 of European Technical Assessment ETA-23/0651</p>
<p>EDS-B-58xLL (ERSS-58xLL-2-T25-30C)</p>	



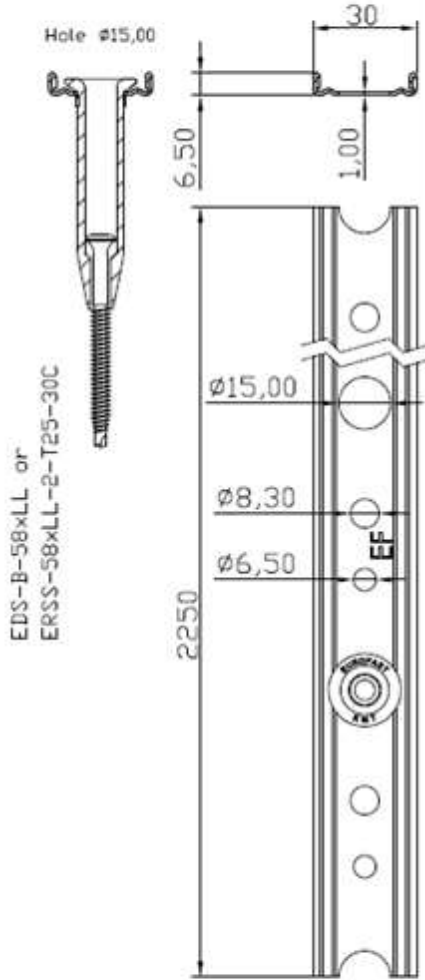
Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

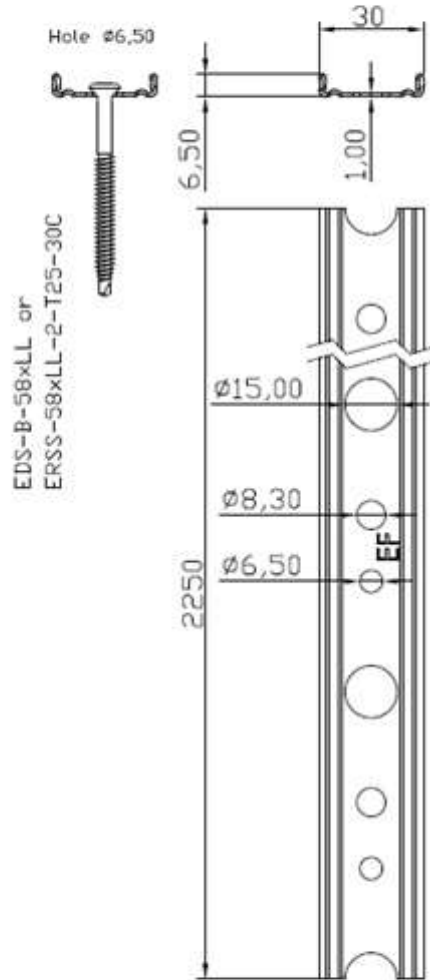
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EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6,5-8,3-15,0-1,0 + EPT-15xLL-PA



EDF-BAR-F-TUBE or
ETM-T-2250-30-6,5-8,3-15,0-1,0

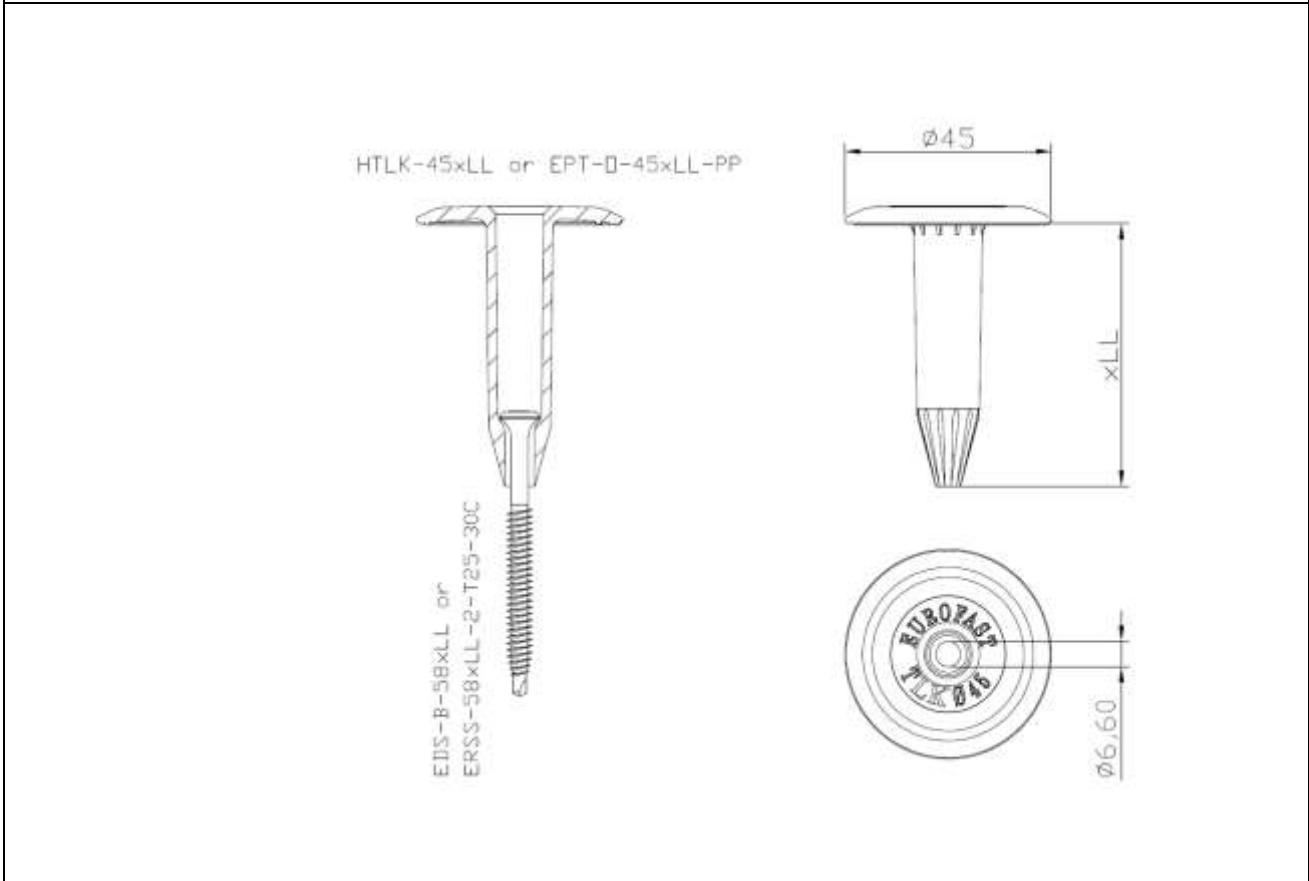
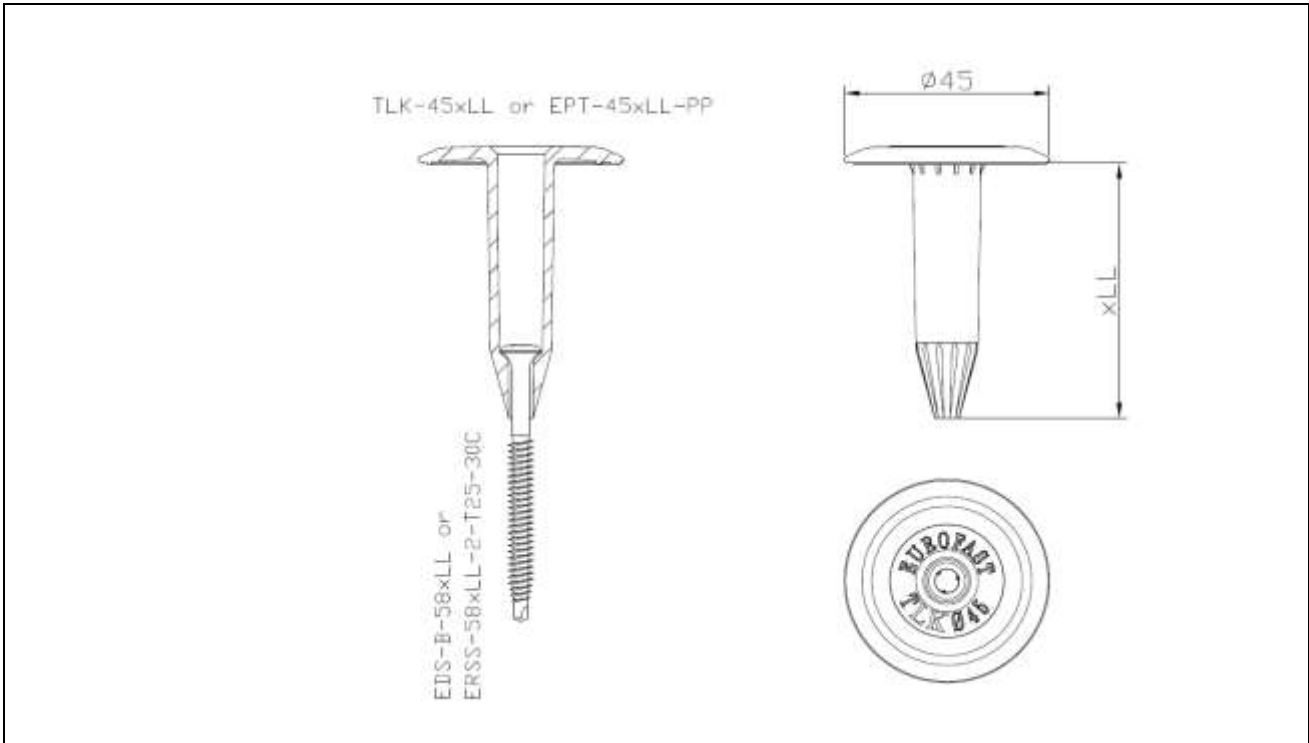


Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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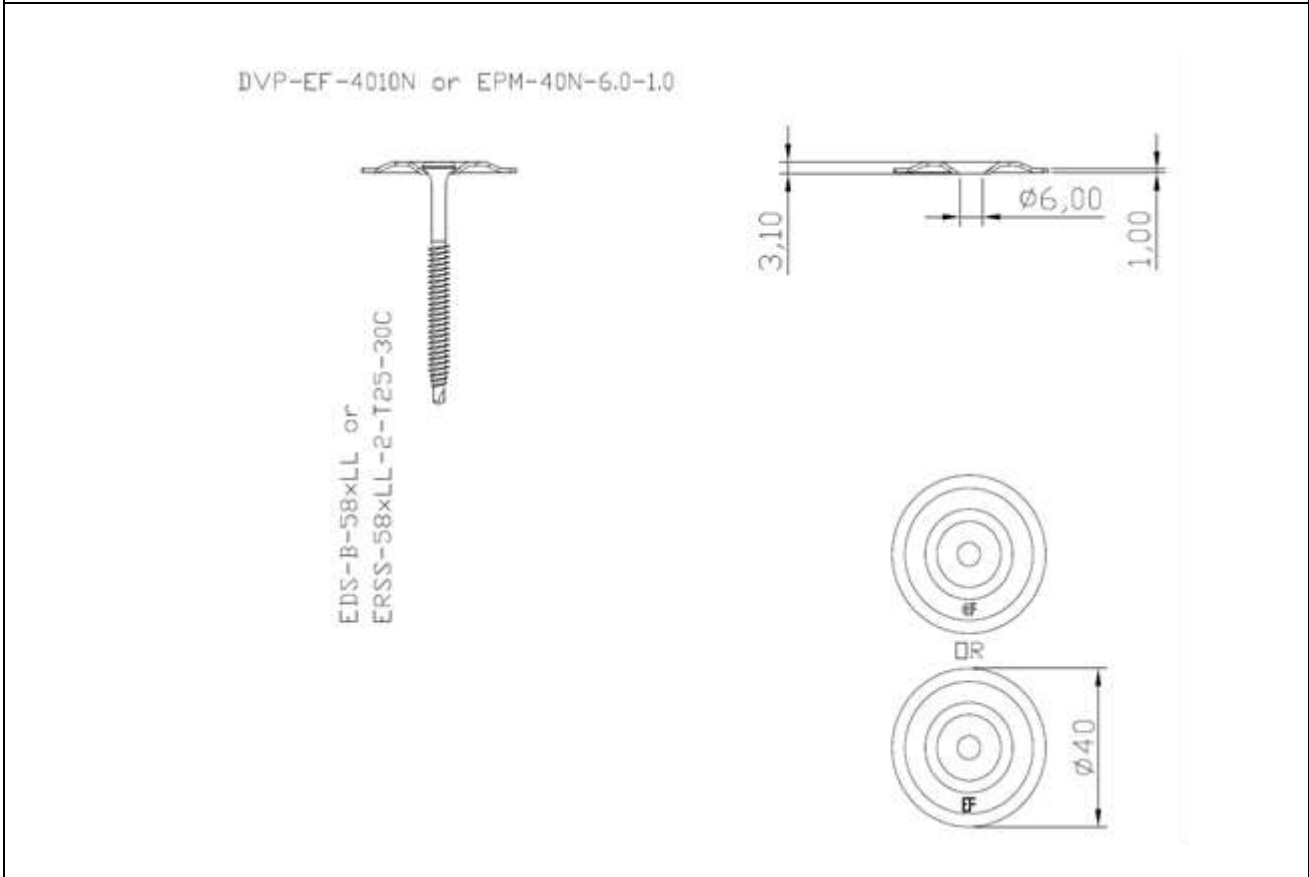
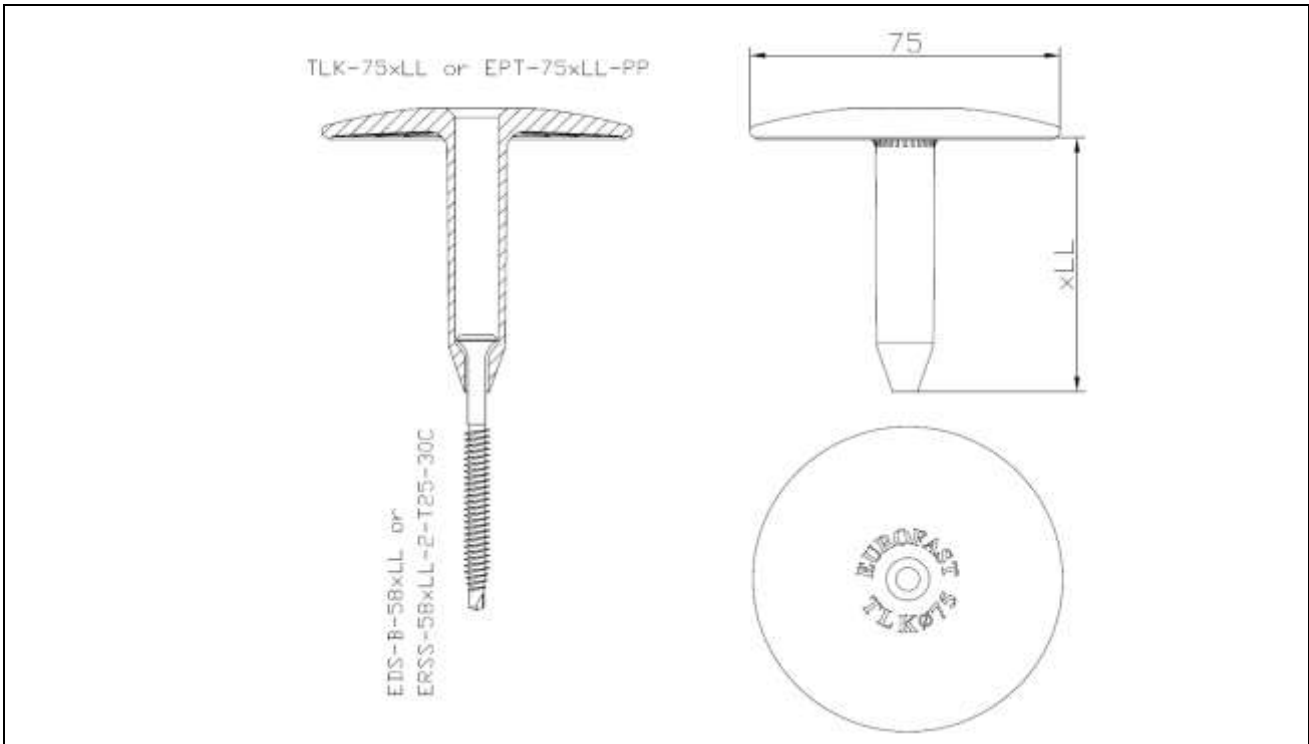


Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

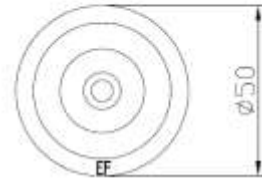
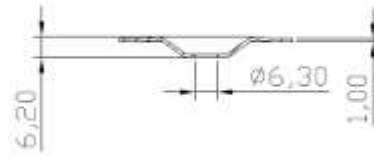
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DVP-EF-5010D or EPM-50D-6.3-1.0



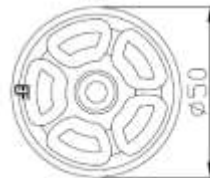
EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



DVP-EF-5010N or EPM-50N-6.3-1.0



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

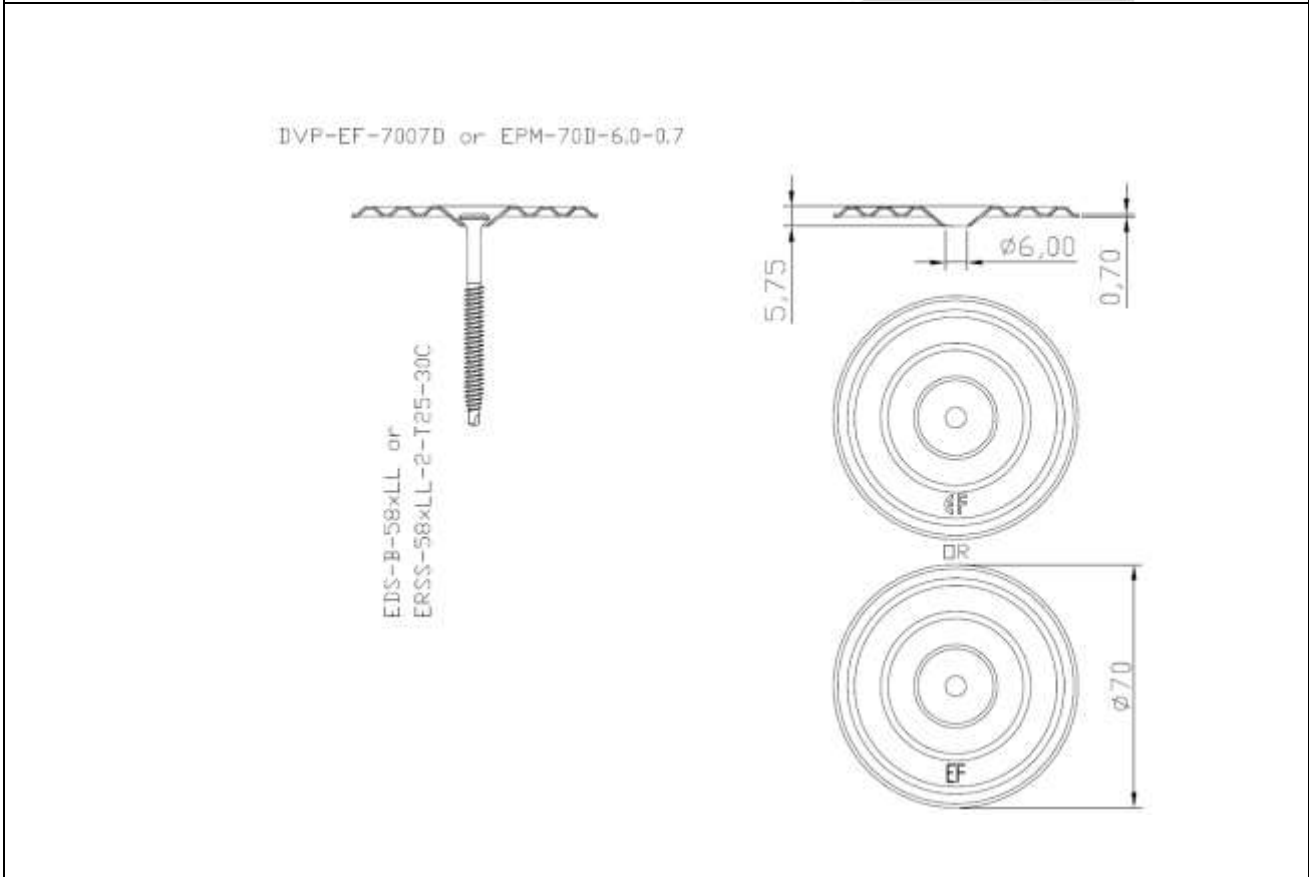
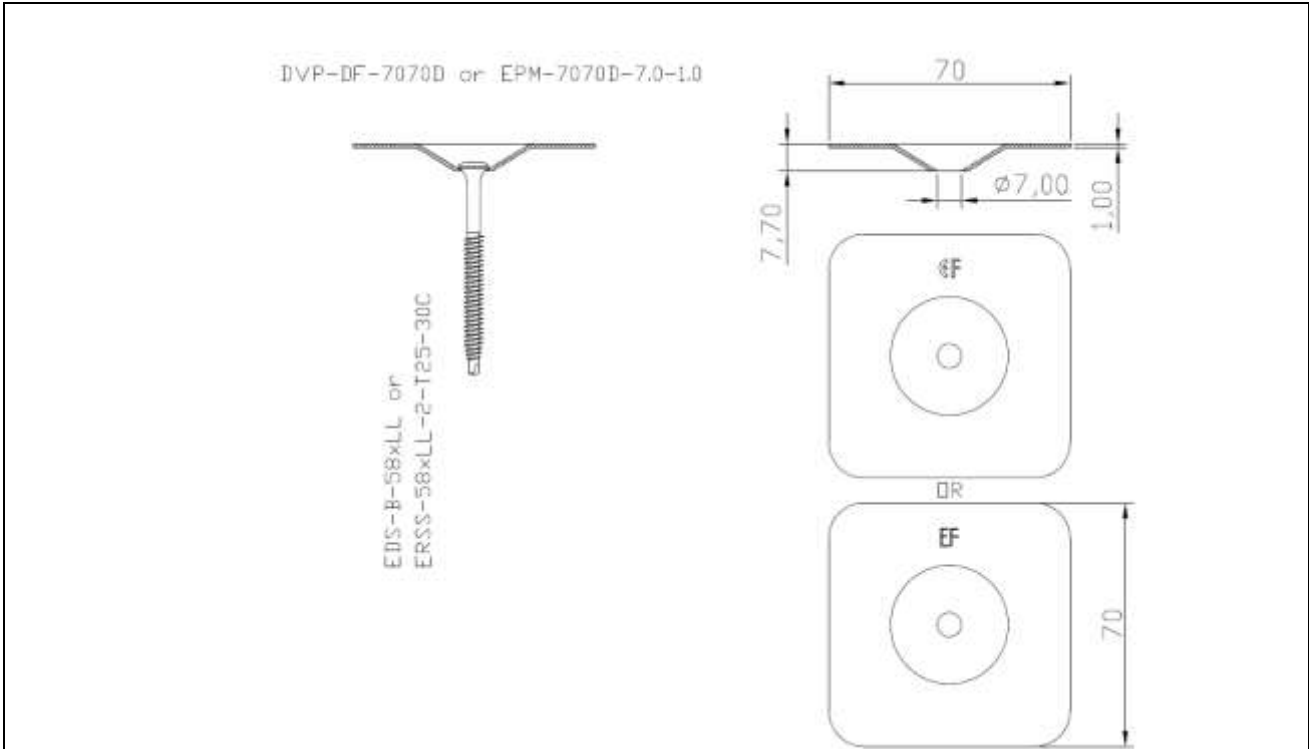


Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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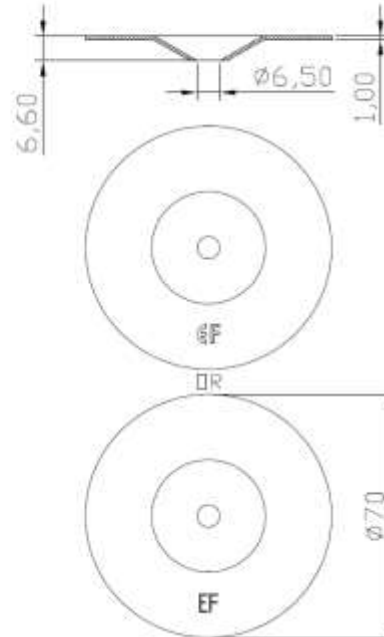


Eurofast Flat Roof Fasteners	Annex C.10 of European Technical Assessment ETA-23/0651
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	

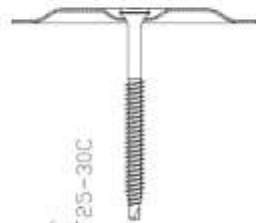
DVP-EF-7010D or EPM-70D-6,5-1,0



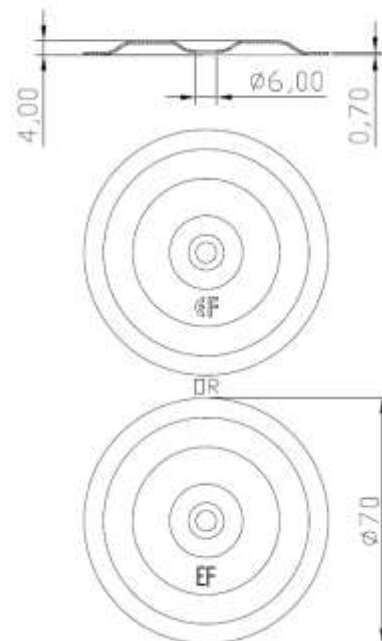
EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



DVP-EF-7007H or EPM-70H-6,0-0,7



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

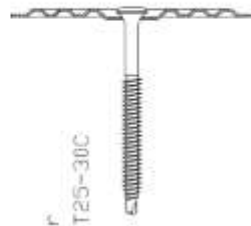


Eurofast Flat Roof Fasteners

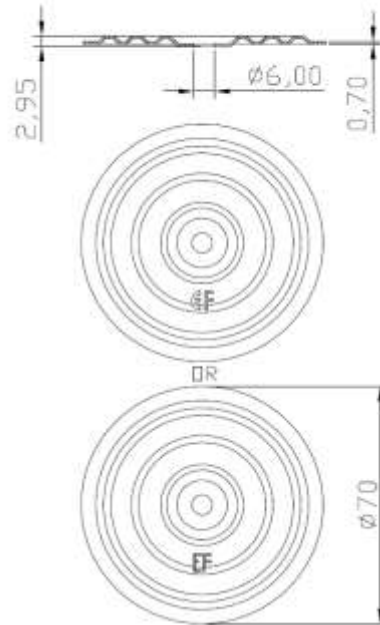
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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DVP-EF-7007N or EPM-70N-6.0-0.7



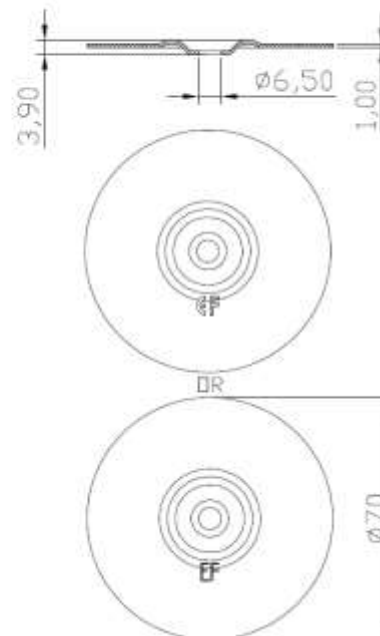
EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



DVP-EF-7010N or EPM-70N-6.5-1.0



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

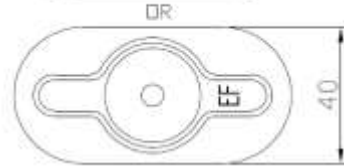
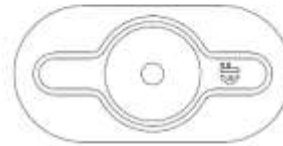
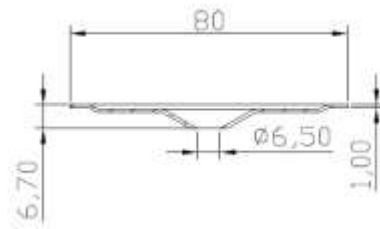
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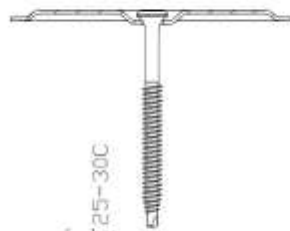
DVP-EF-8040D or EPM-8040D-6.5-1.0



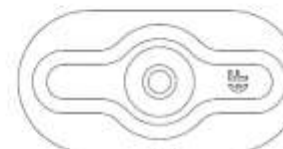
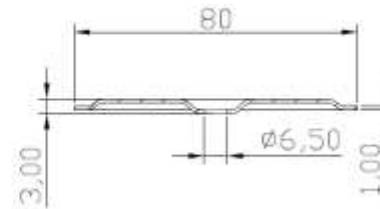
EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



DVP-EF-8040N or EPM-8040N-6.5-1.0



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



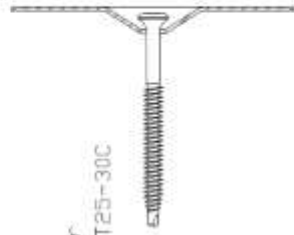
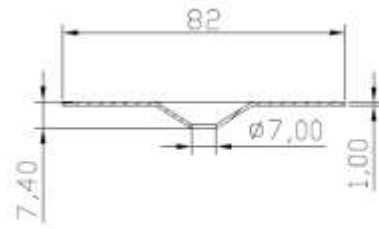
Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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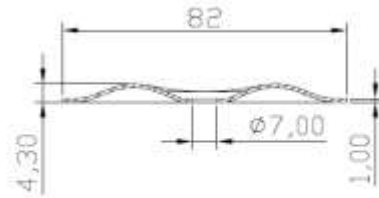
DVP-DF-8240D or EPM-8240D-7,00-1,0

EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

DR



DVP-DF-8240H or EPM-8240H-7,0-1,0

EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

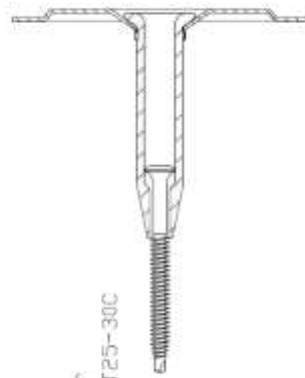
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**Eurofast Flat Roof Fasteners**

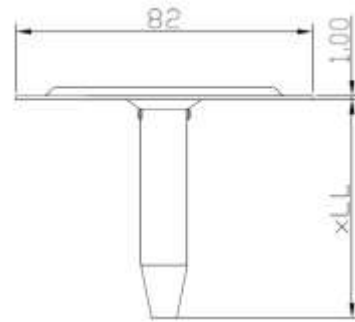
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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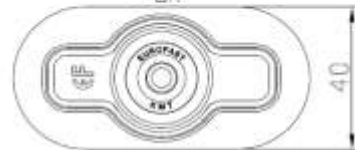
DVP-KMT-8240 + KMT-15xLL or
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



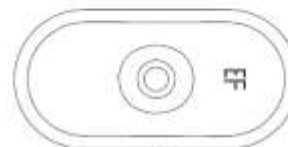
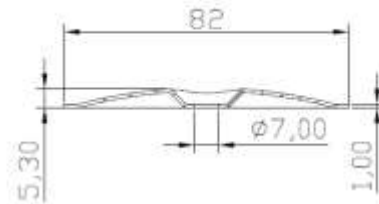
DR



DVP-DF-8240XH or EPM-8240XH-7.0-1.0



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



DR

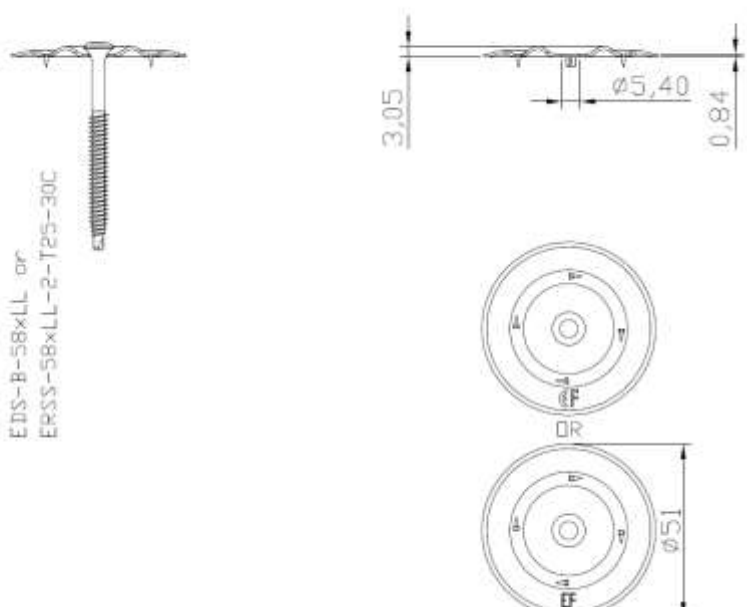
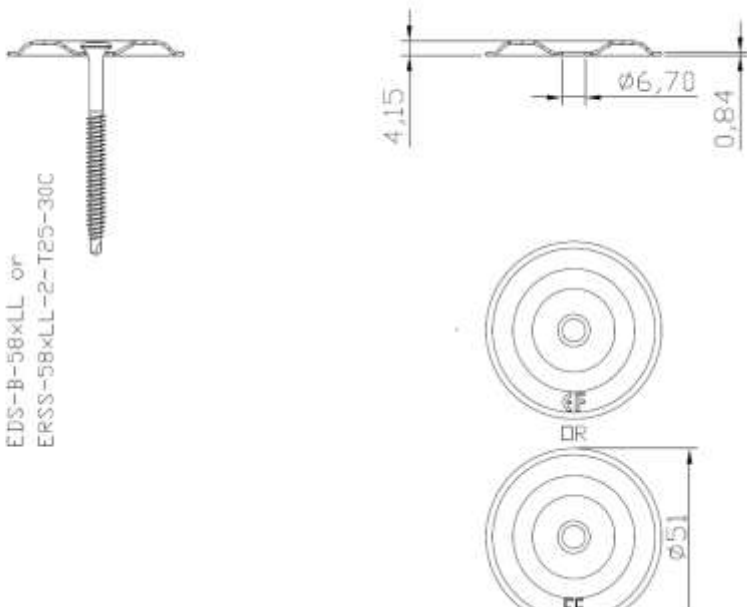


Eurofast Flat Roof Fasteners

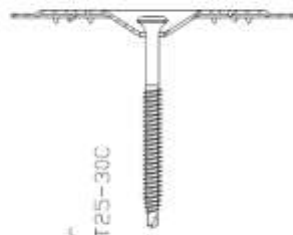
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

Annex C.15

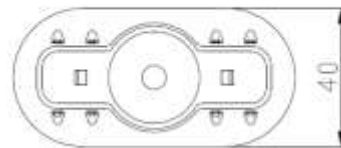
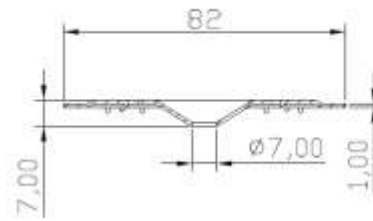
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<p>DVP-EFB-51NS or EPM-B-51N-5,4-0,84</p>  <p>EDS-B-58xLL or ERSS-58xLL-2-T25-30C</p>	
<p>DVP-EF-51N or EPM-51N-6,7-0,84</p>  <p>EDS-B-58xLL or ERSS-58xLL-2-T25-30C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex C.16 of European Technical Assessment ETA-23/0651</p>
<p>EDS-B-58xLL (ERSS-58xLL-2-T25-30C)</p>	

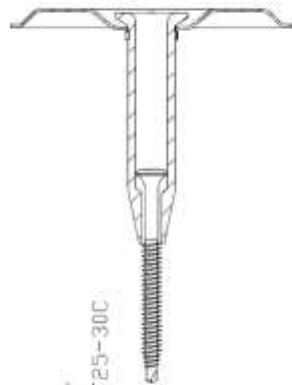
DVP-DFB-8240D or EPM-B-8240D-7,0-1,0



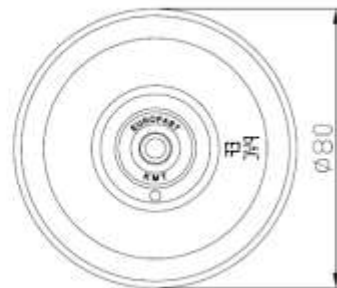
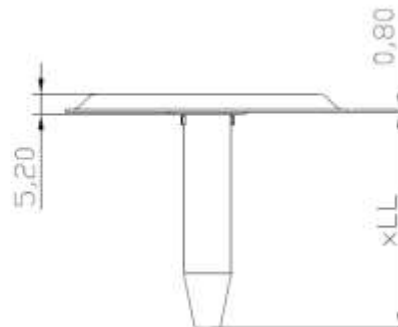
EDS-B-58xLL or
ERSS-58xLL-2-T25-30C



EPM-T-IP-80-13,6-0,8 + KMT-15xLL or
EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

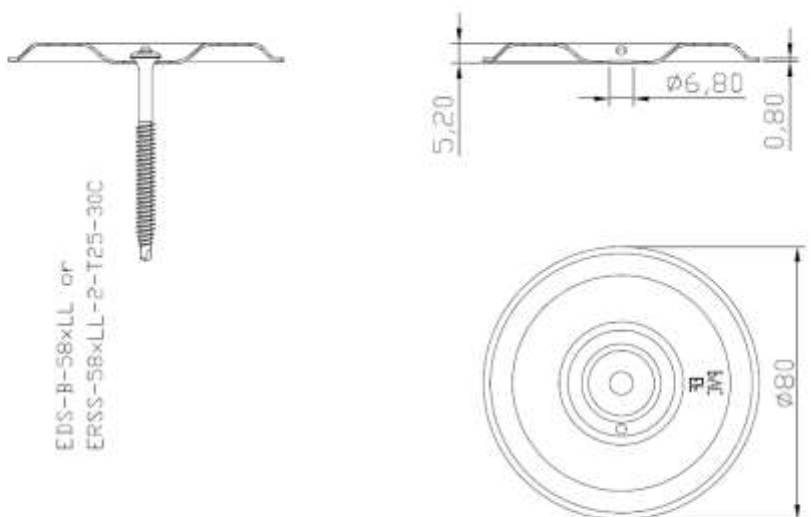
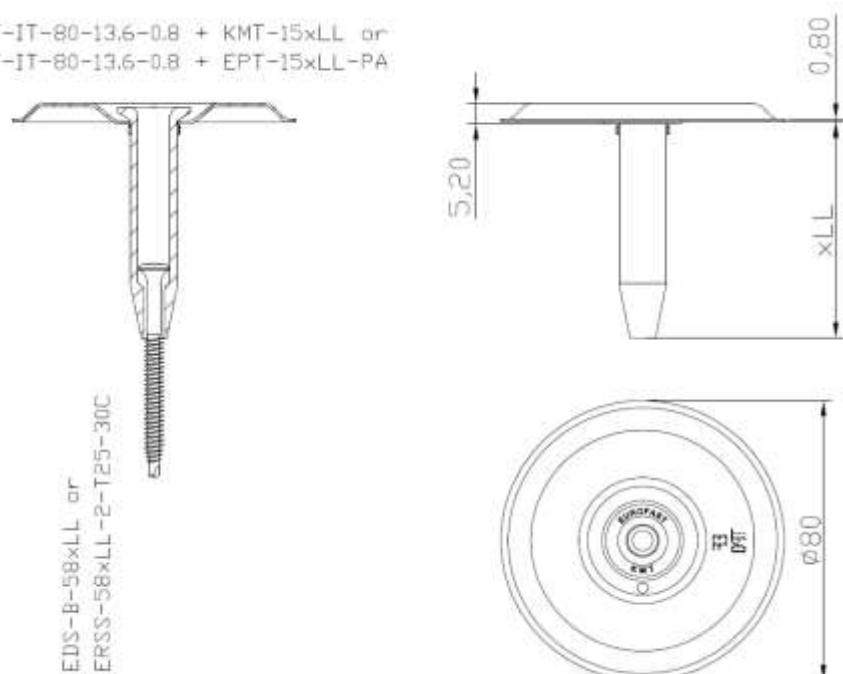


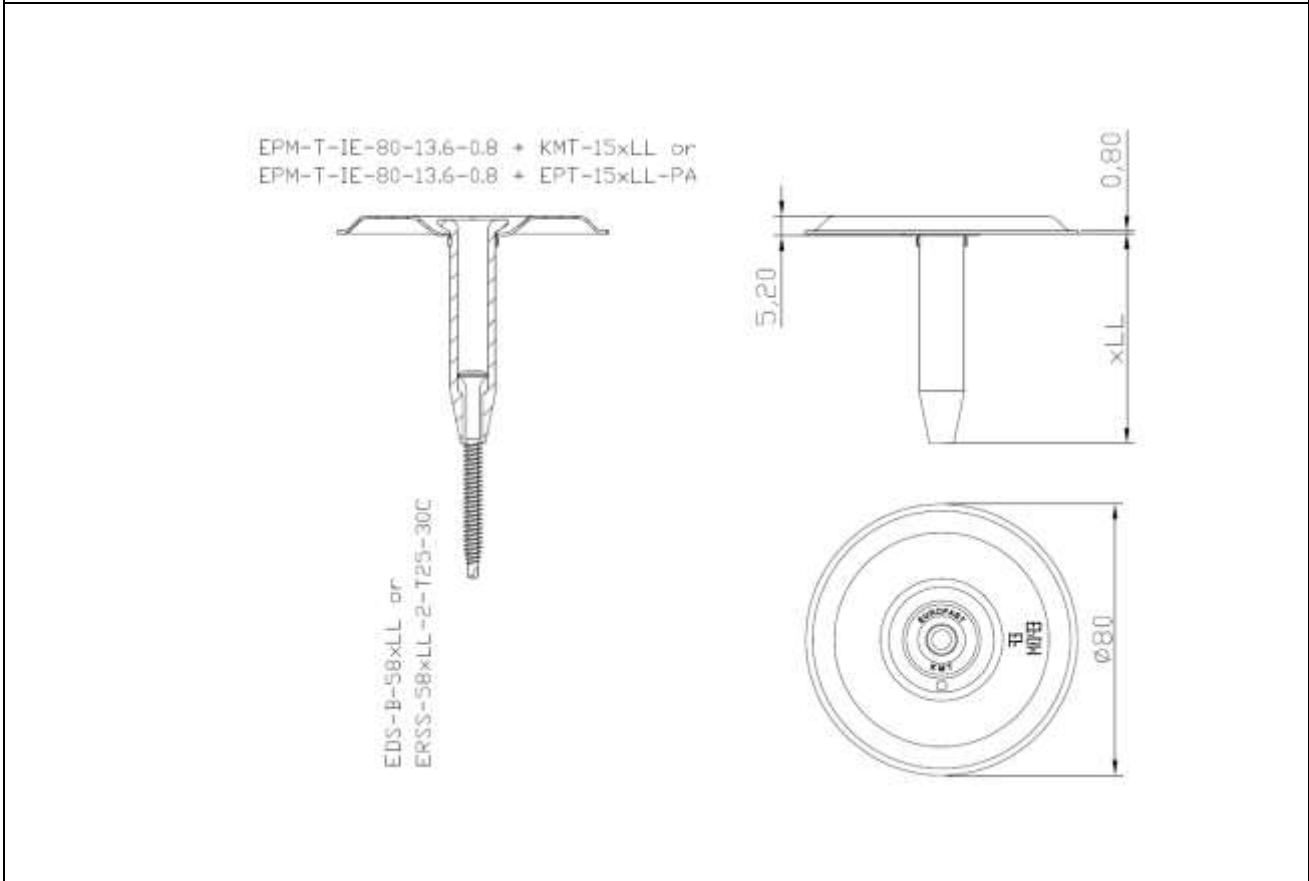
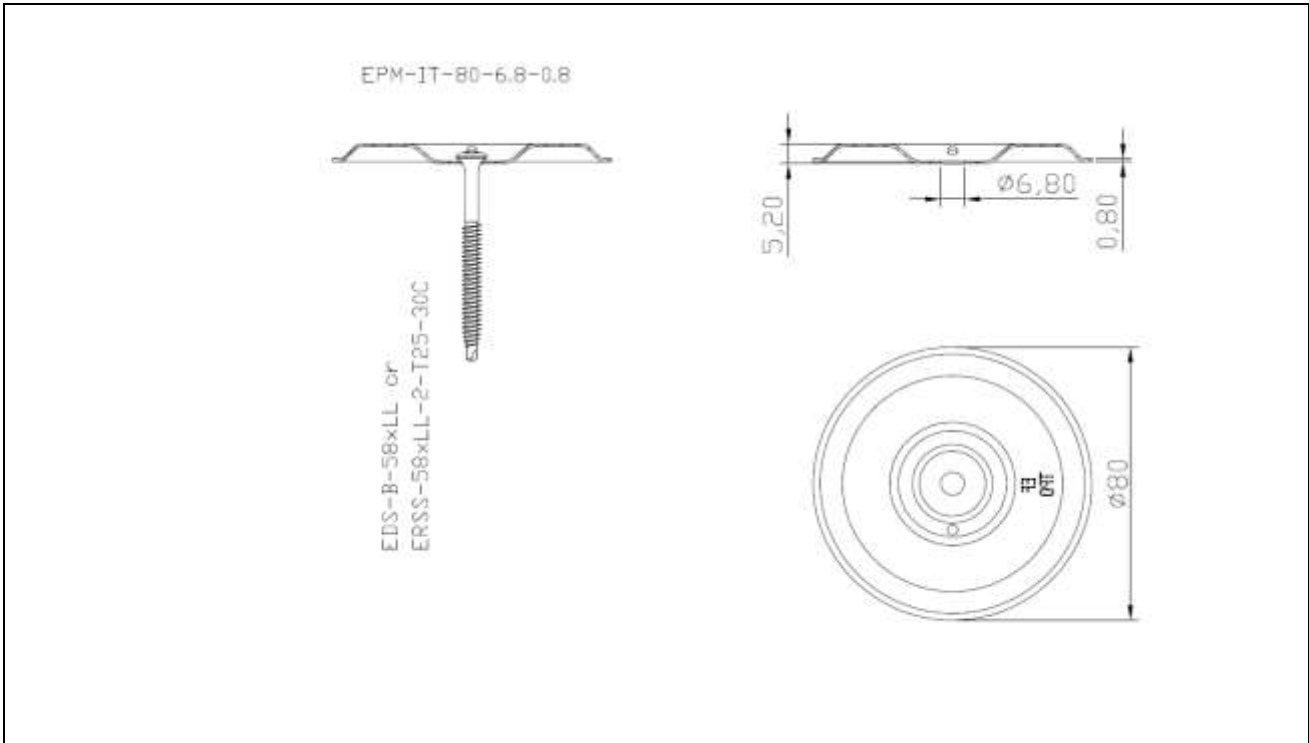
Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

Annex C.17

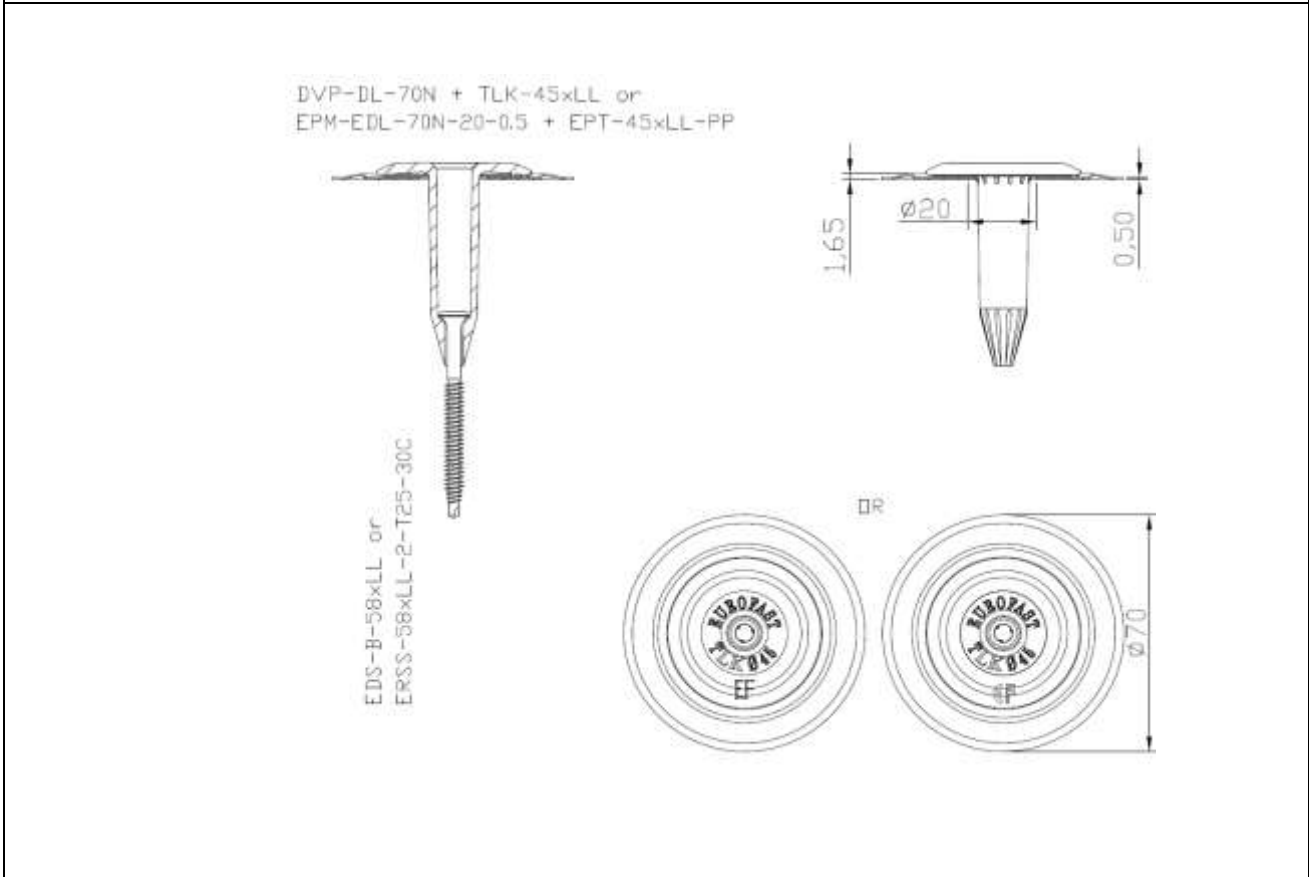
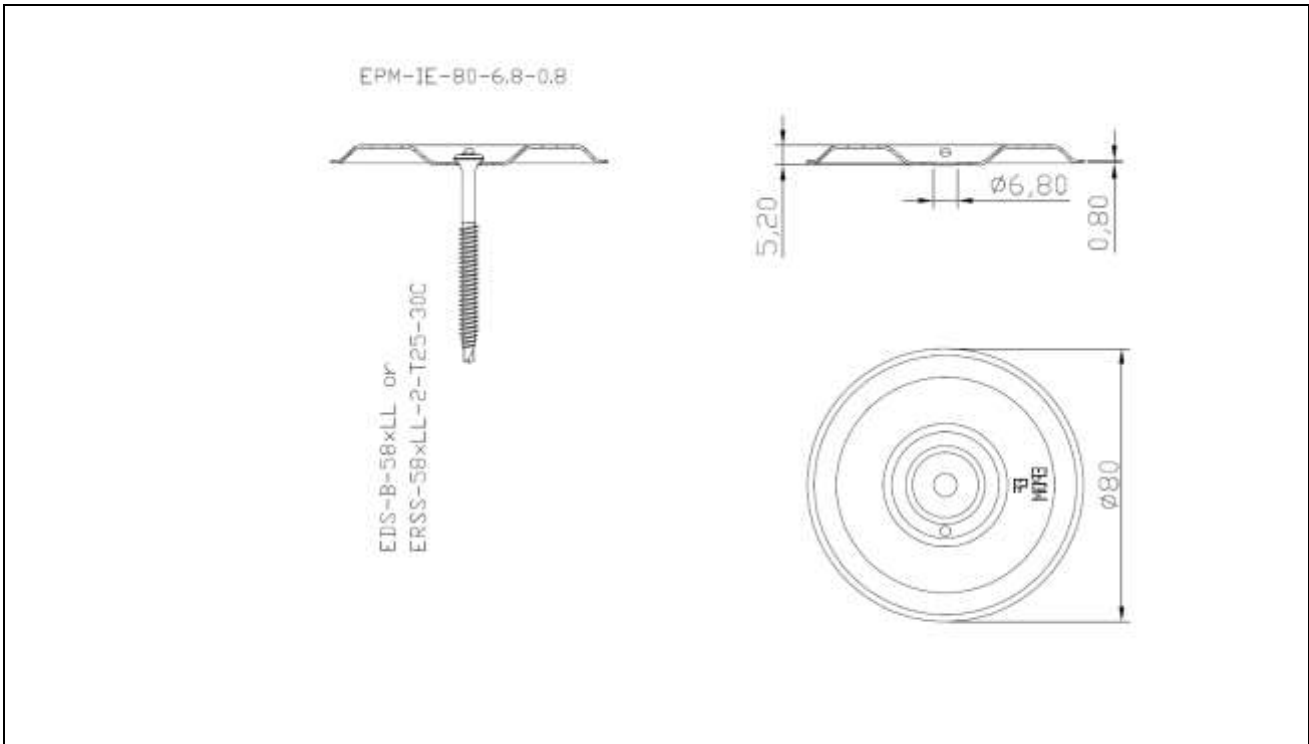
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<p>EPM-IP-80-6.8-0.8</p>  <p>EDS-B-58xLL or ERSS-58xLL-2-T25-30C</p>	
<p>EPM-T-IT-80-13,6-0.8 + KMT-15xLL or EPM-T-IT-80-13,6-0.8 + EPT-15xLL-PA</p>  <p>EDS-B-58xLL or ERSS-58xLL-2-T25-30C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex C.18 of European Technical Assessment ETA-23/0651</p>
<p>EDS-B-58xLL (ERSS-58xLL-2-T25-30C)</p>	



Eurofast Flat Roof Fasteners
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

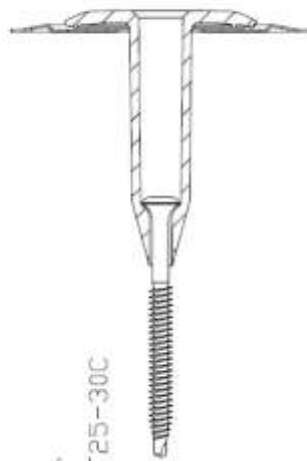
<p>Annex C.19 of European Technical Assessment ETA-23/0651</p>



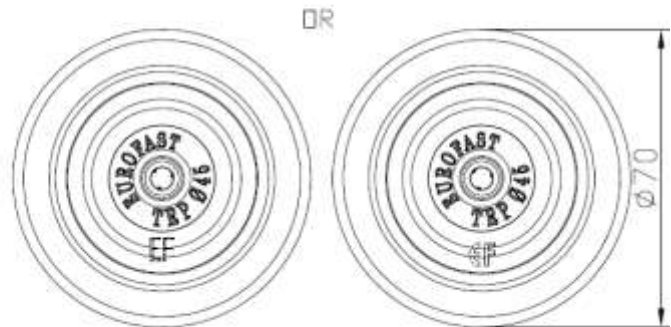
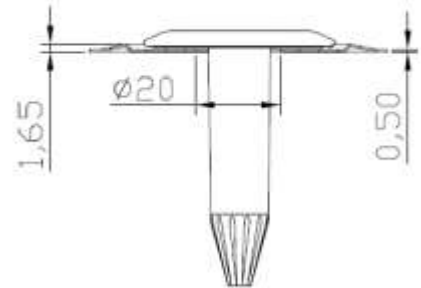
Eurofast Flat Roof Fasteners
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



EDS-B-58xLL or
ERSS-58xLL-2-T25-30C

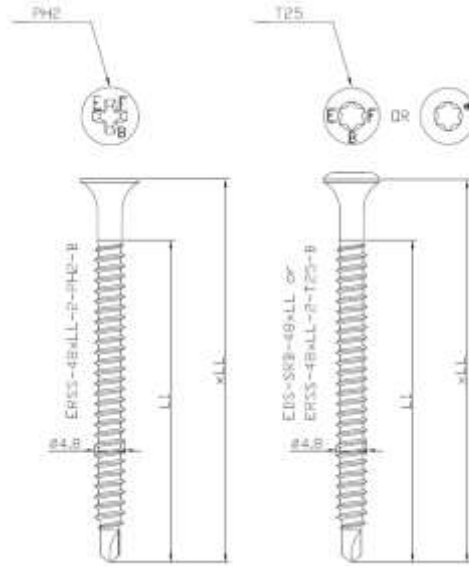


Eurofast Flat Roof Fasteners

EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)									
t [mm]	Steel S320GD*						Aluminium		
		0,70	0,75	0,80	0,88	1,00	1,25	0,80	0,85
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)	1,15	1,17	1,31	1,31	1,36	2,23	0,71	0,75	1,02
ERSS-48xLL-2-PH2-B	1,15	1,17	1,31	1,31	1,36	2,23	0,71	0,75	1,02

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
		18	21	25	19	18	21
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)	1,12	1,12	1,30	1,16	1,01	1,07	1,75
ERSS-48xLL-2-PH2-B	1,12	1,12	1,30	1,16	1,01	1,07	1,75

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)	DVP-EFB-51NS (EPM-B-51N-5.4-0.84)	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	DVP-EF-7005N (EPM-70N-5.1-0.5)	DVP-EF-7007H (EPM-70H-6.0-0.7)	-	-	EPM-IT-80-6.8-0.8
	-	DVP-EF-7007N (EPM-70N-6.0-0.7)	-	-	EPM-IE-80-6.8-0.8
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)	2,36	2,91	3,87	2,93	2,92
ERSS-48xLL-2-PH2-B	2,36	2,91	3,87	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)	2,64	1,68	1,78
ERSS-48xLL-2-PH2-B	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)
	DVP-EF-5010DFR (EPM-50D-4.85-1.0)	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)
	DVP-EF-7070D (EPM-7070D-4.85-1.0)	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
	DVP-EF-7010DFR (EPM-70D-4.85-1.0)	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
	DVP-EF-8240D (EPM-8240D-4.85-1.0)	-	-	-	-
	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)	-	-	-	-
	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)	-	-	-	-
	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)	-	-	-	-
	DVP-EFF-8040D (EPM-8040D-4.85-1.0)	-	-	-	-
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)	5,18	5,05	4,43	3,89	2,96
ERSS-48xLL-2-PH2-B	5,18	5,05	4,43	3,89	2,96

Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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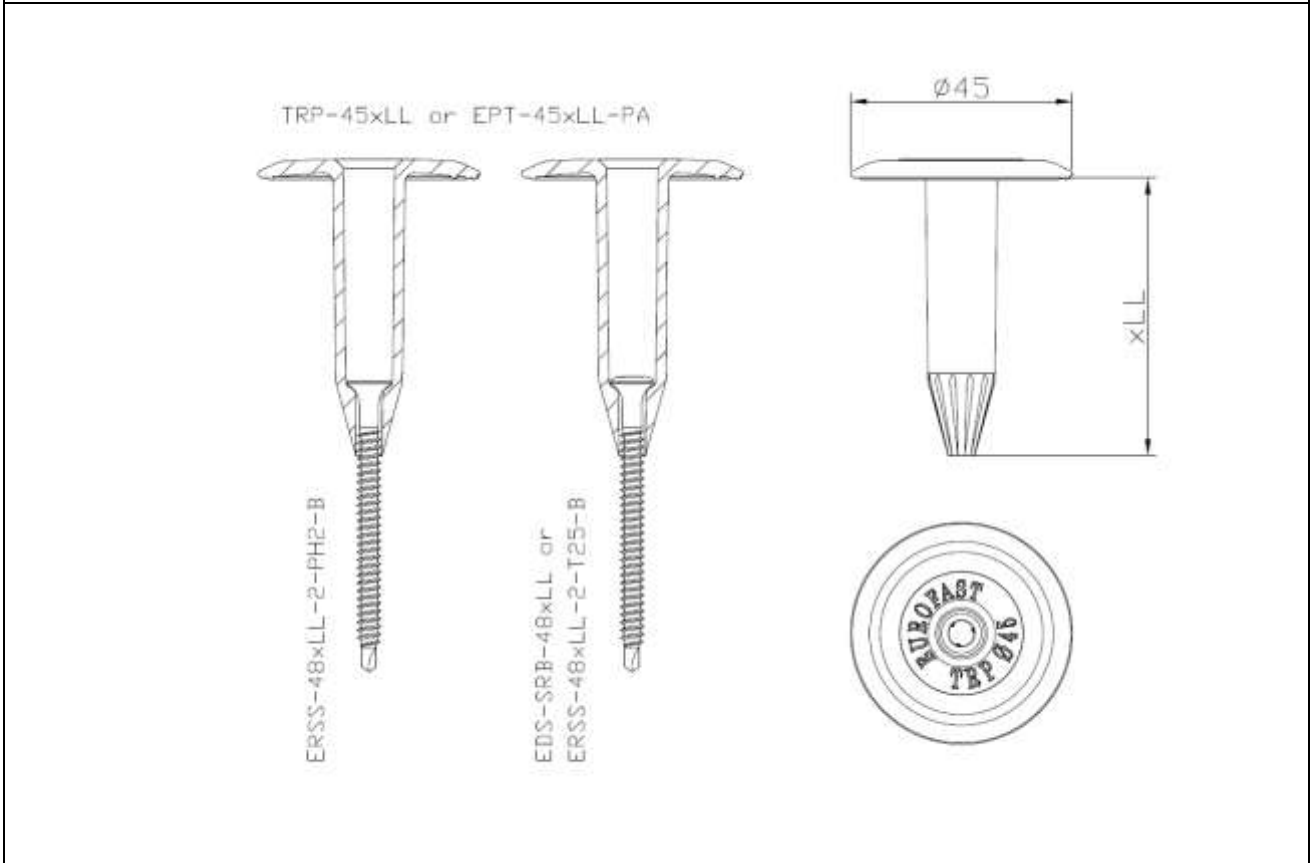
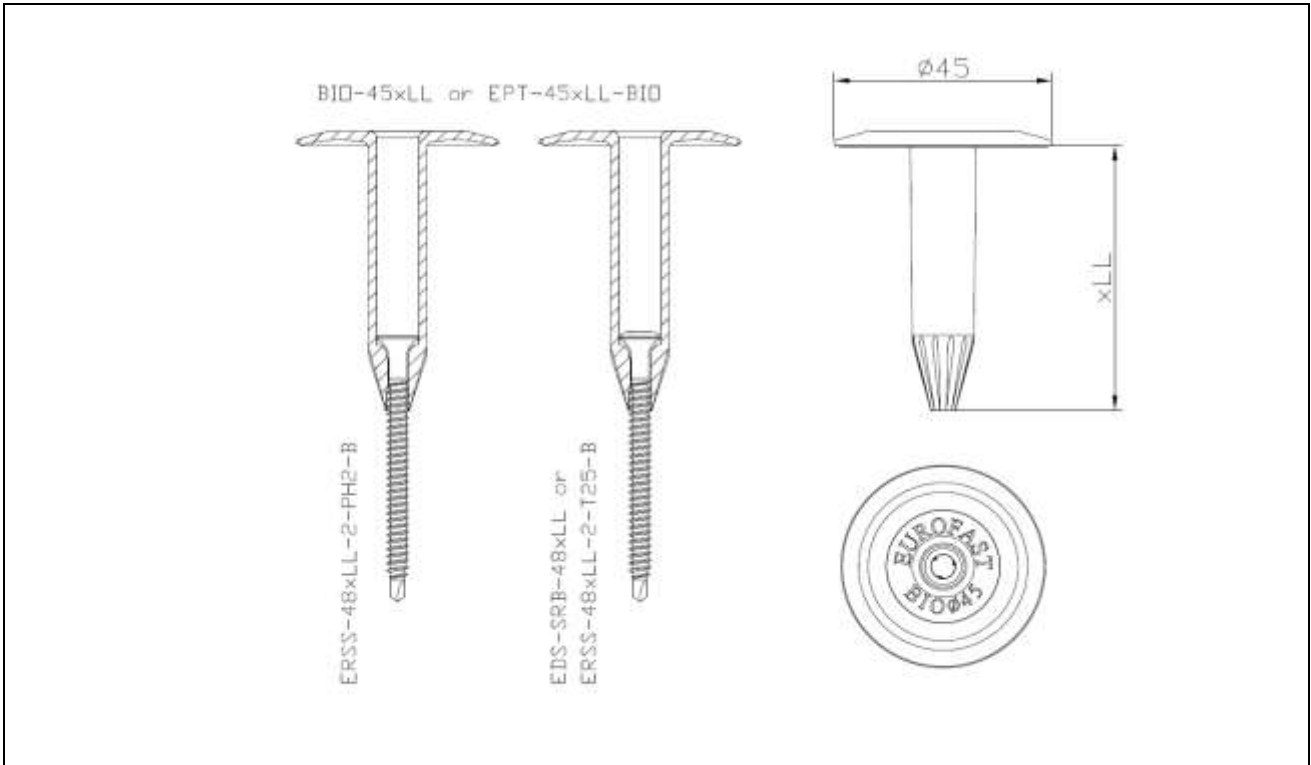
Screw:			
EDS-SRB-48xLL	(ERSS-48xLL-2-T25-B)		
ERSS-48xLL-2-PH2-B			
Metal pressure plate:			
DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240H	(EPM-8240H-7.0-1.0)
DVP-EF-5010DFR	(EPM-50D-4.85-1.0)	DVP-EF-8240XH	(EPM-8240XH-4.85-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-EFB-51NS	(EPM-B-51N-5.4-0.84)
DVP-EF-7070D	(EPM-7070D-4.85-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	DVP-EFB-8240D	(EPM-B-8240D-4.85-1.0)
DVP-EF-7010DFR	(EPM-70D-4.85-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-EF-7005D	(EPM-70D-5.0-0.5)	DVP-EFZK-8240D	(EPM-ZK-8240D-4.85-1.0)
DVP-EF-7007D	(EPM-70D-6.0-0.7)	DVP-EFF-8040D	(EPM-8040D-4.85-1.0)
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7005N	(EPM-70N-5.1-0.5)	EPM-IE-80-6.8-0.8	
DVP-EF-7007N	(EPM-70N-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8240D	(EPM-8240D-4.85-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
Pressure plate with tube:		Termination bar:	
BIO-45xLL	(EPT-45xLL-BIO)	EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
TRP-45xLL	(EPT-45xLL-PA)	EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
BTRP-45xLL	(EPT-B-45xLL-PA)	EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
TWP-8040xLL	(EPT-8040xLL-PA)	EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)		
HTLK-45xLL	(EPT-O-45xLL-PP)		
TLK-75xLL	(EPT-75xLL-PP)		
Substrate:			
Steel S280		EN 10346	
Steel S320		EN 10346	
Aluminium	$R_m \geq 195 \text{ N/mm}^2$	EN 485	
OSB/3	$\rho_{\min} = 550 \text{ kg/m}^3$	EN 12369-1	
Chipboard	$\rho_{\min} = 600 \text{ kg/m}^3$	EN 12369-1	
Plywood	$\rho_{\min} = 400 \text{ kg/m}^3$	EN 12369-2	
Timber, class \geq C24	$\rho_{\min} = 350 \text{ kg/m}^3$	EN 338	
Installation data:			
Max. drilling capacity in steel substrate:		2x1,25 mm	
Head type:		Bugle Head / Raised Bugle Head	
Recess:		PH2 / TX25	
Fixing in steel substrate:		Min. 30 mm of the screw fixed through the steel sheet	
Fixing in aluminium substrate:		Min. 30 mm of the screw fixed through the aluminium sheet	
Fixing in wooden and wood-based substrate:		Full thread through the substrate or minimum embedment depth	
Installation force of installation tool in:			
- steel and aluminium substrate		25 kg	
- wooden and wood-based substrate:		35 kg	
Installation tool speed:		1500 - 2500 rpm	

Eurofast Flat Roof Fasteners

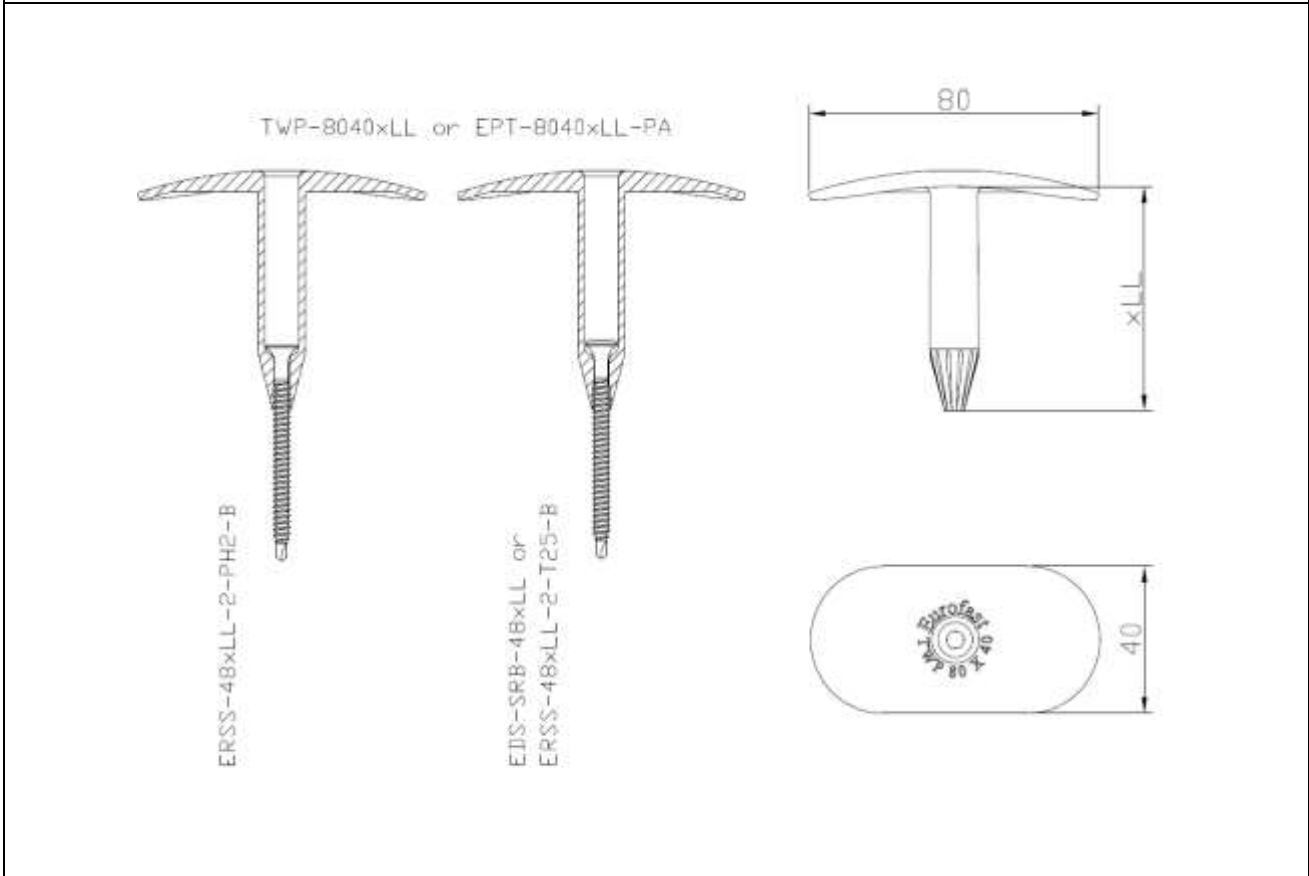
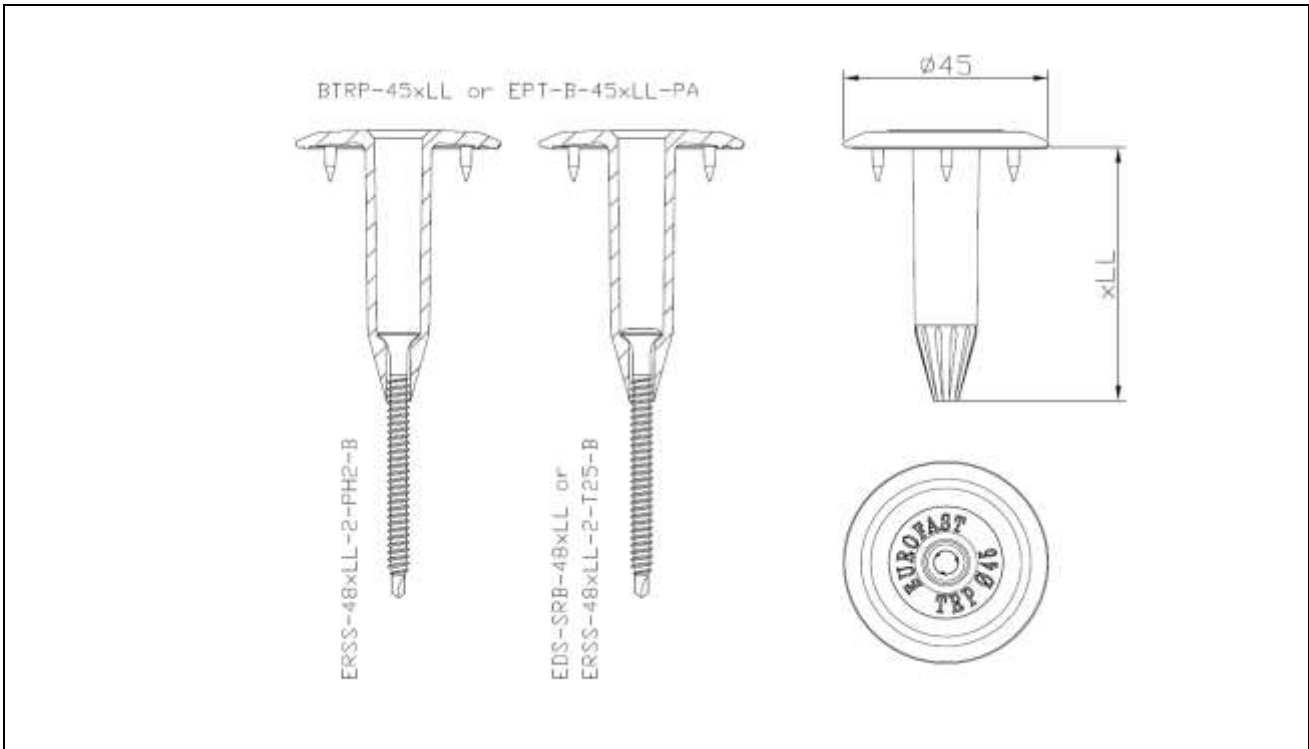
 EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
 (ERSS-48xLL-2-PH2-B)

Annex D.3

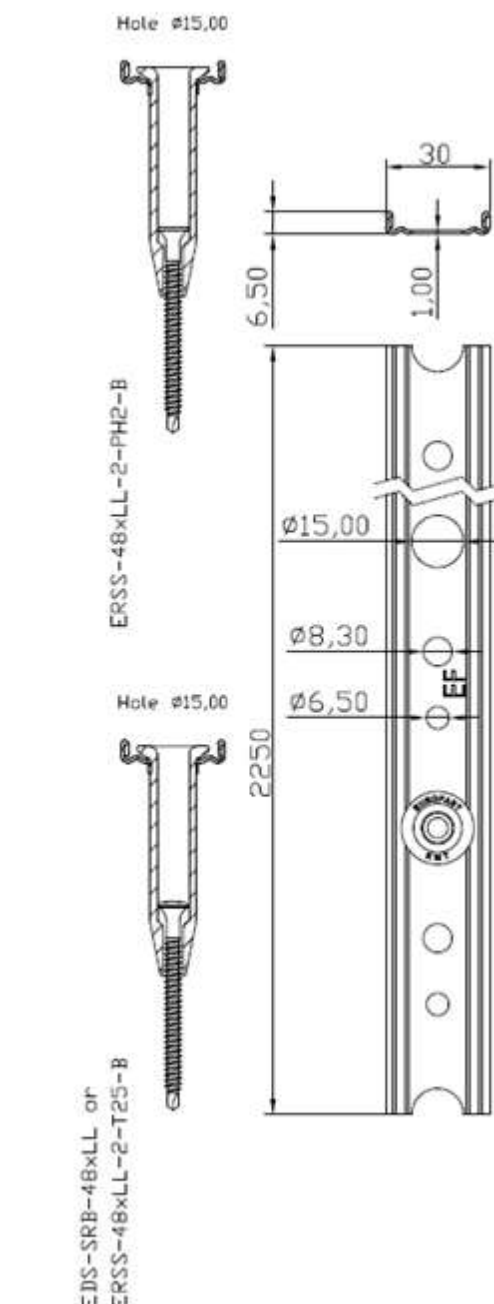
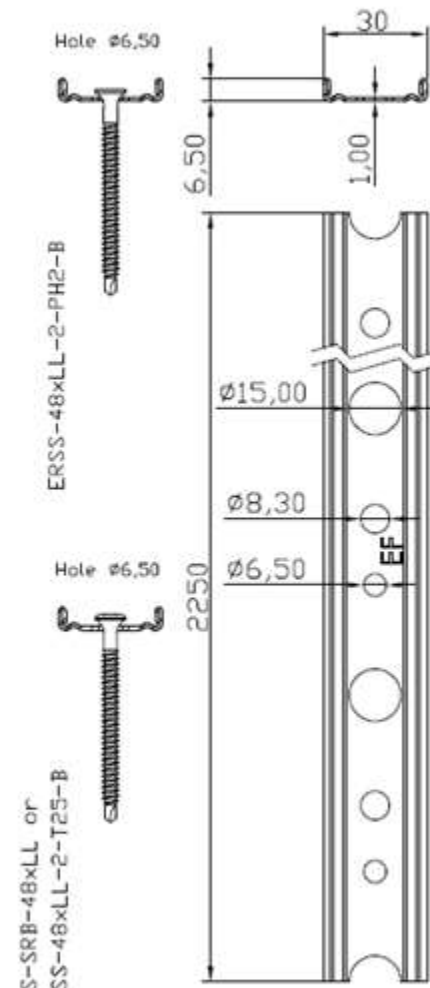
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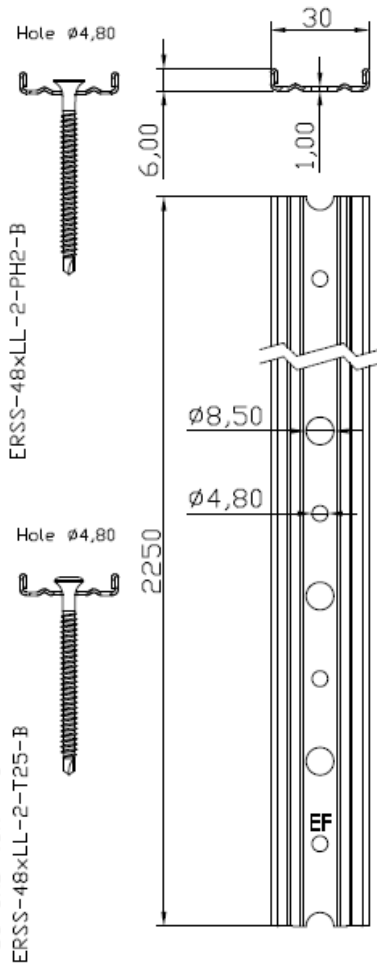
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex D.4 of European Technical Assessment ETA-23/0651</p>
<p>EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)</p>	



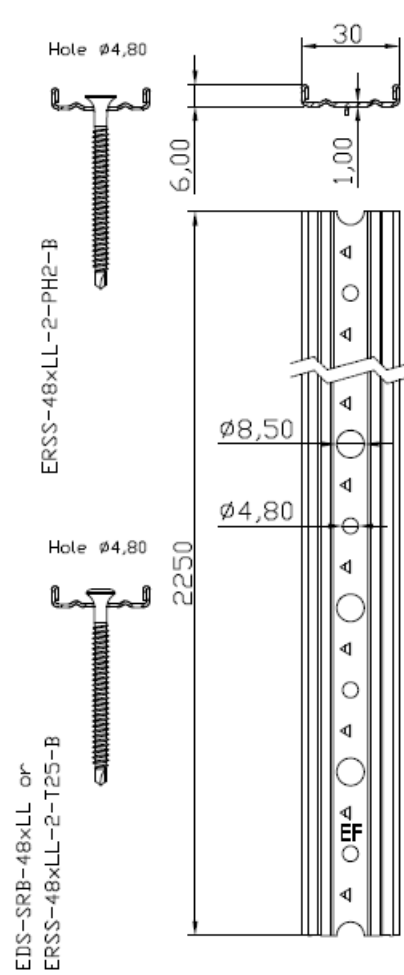
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex D.5 of European Technical Assessment ETA-23/0651</p>
<p>EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)</p>	

<p>EDF-BAR-F-TUBE + KMT-15xLL or ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA</p>  <p>Hole $\varnothing 15,00$</p> <p>ERSS-48xLL-2-PH2-B</p> <p>Hole $\varnothing 15,00$</p> <p>EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p> <p>$\varnothing 15,00$</p> <p>$\varnothing 8,30$</p> <p>$\varnothing 6,50$</p> <p>2250</p> <p>6,50</p> <p>1,00</p> <p>30</p> <p>FF</p>	<p>EDF-BAR-F-TUBE or ETM-T-2250-30-6.5-8.3-15.0-1.0</p>  <p>Hole $\varnothing 6,50$</p> <p>ERSS-48xLL-2-PH2-B</p> <p>Hole $\varnothing 6,50$</p> <p>EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p> <p>$\varnothing 15,00$</p> <p>$\varnothing 8,30$</p> <p>$\varnothing 6,50$</p> <p>2250</p> <p>6,50</p> <p>1,00</p> <p>30</p> <p>FF</p>
<p>Eurofast Flat Roof Fasteners</p>	
<p>EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)</p>	<p>Annex D.6 of European Technical Assessment ETA-23/0651</p>

EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

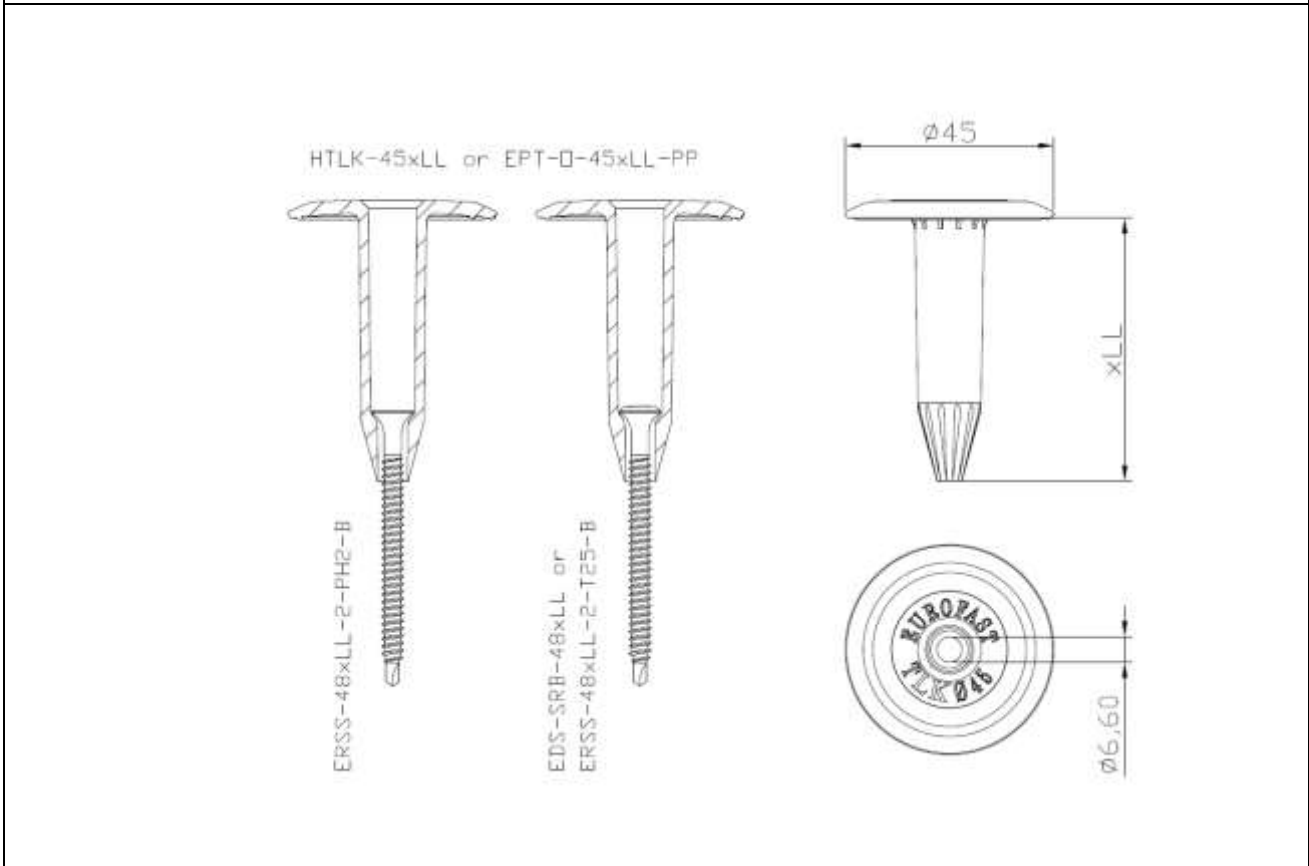
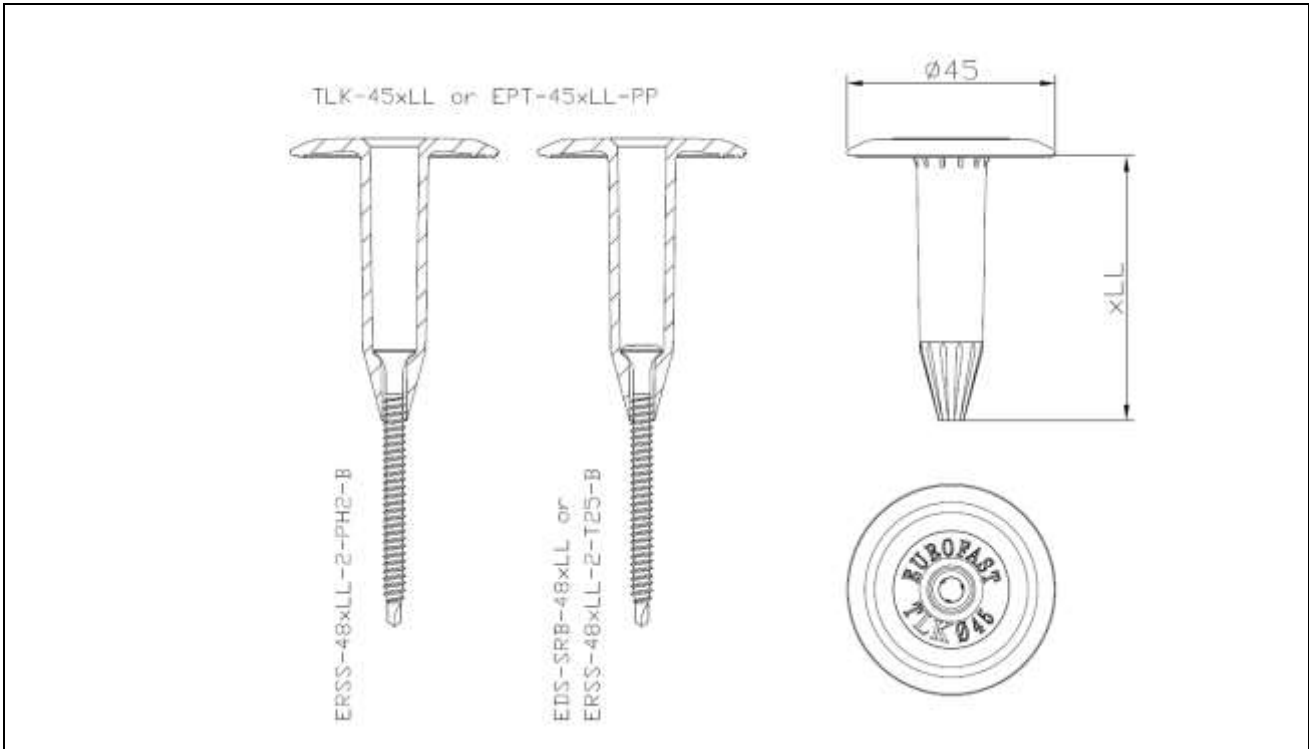


Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

Annex D.7

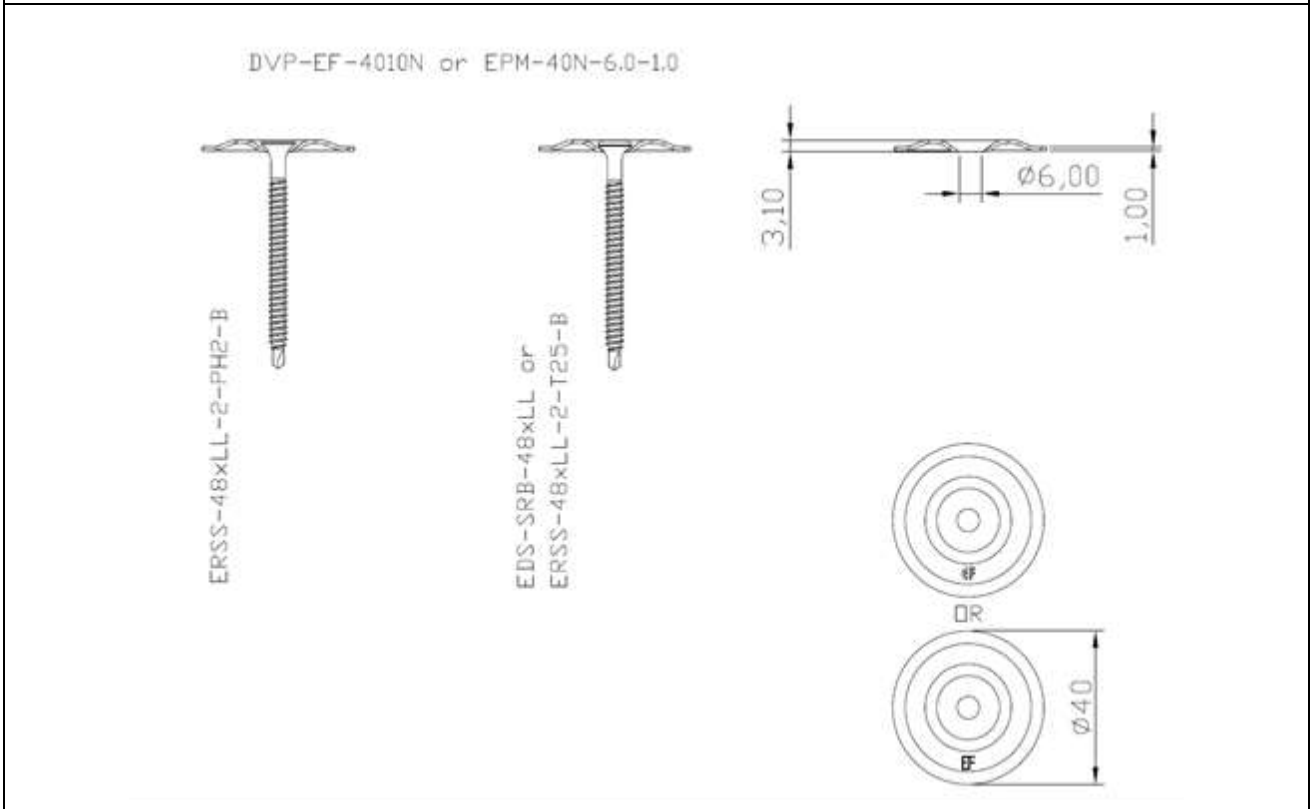
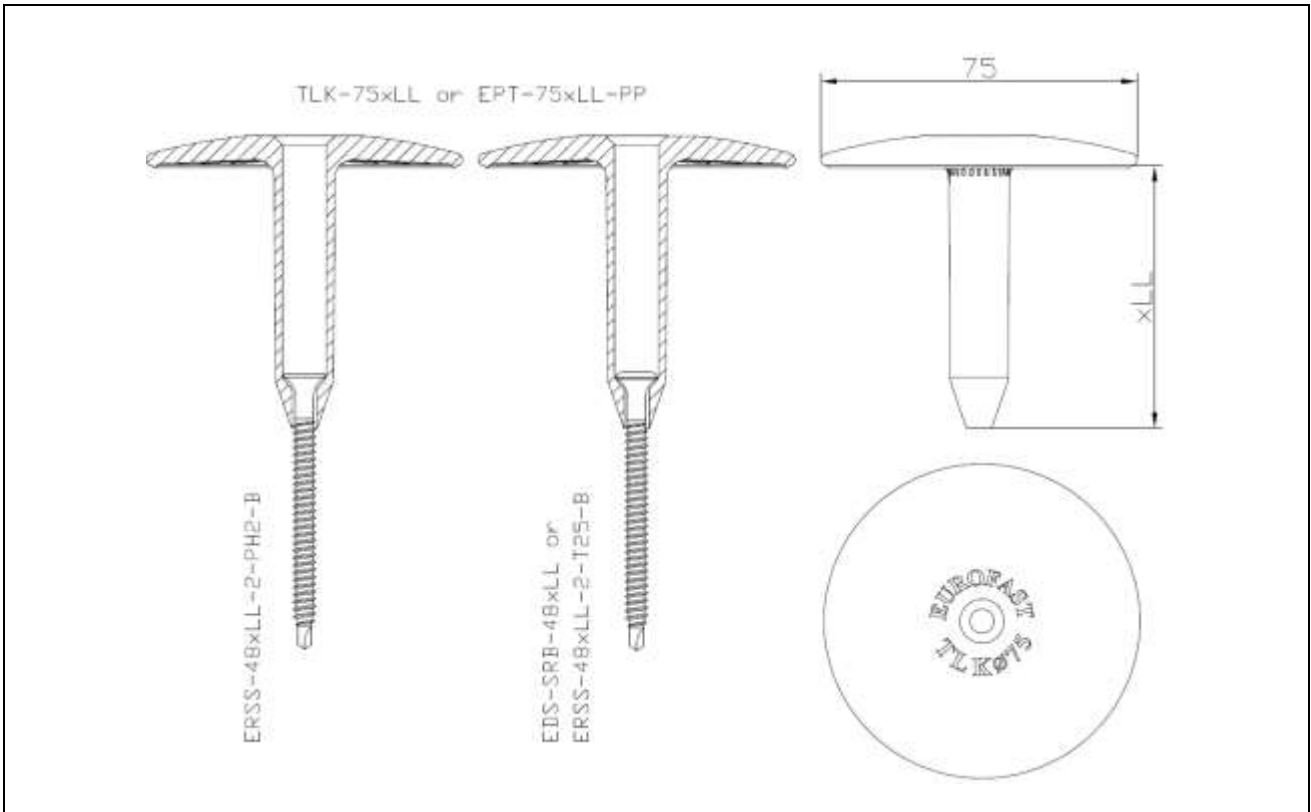
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Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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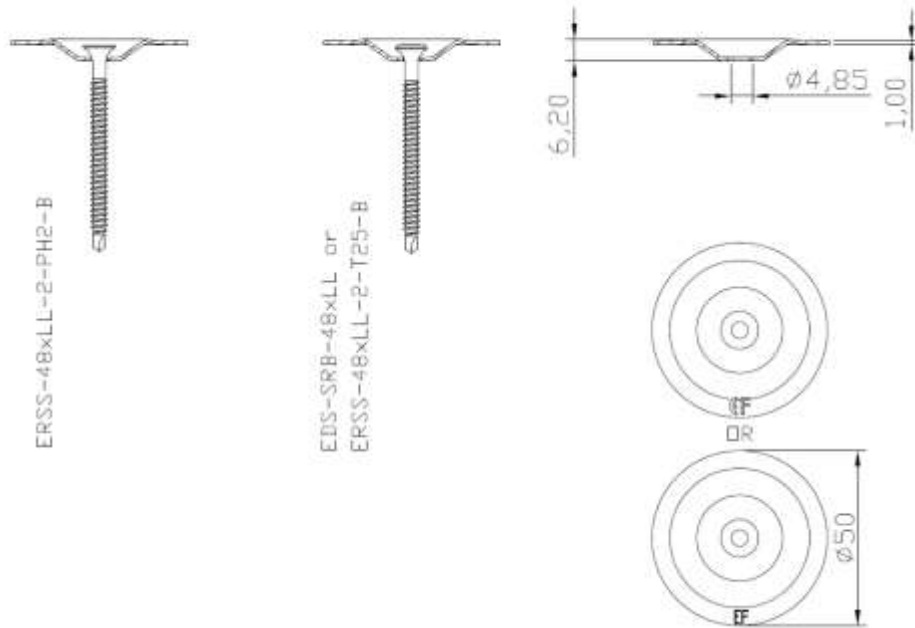
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

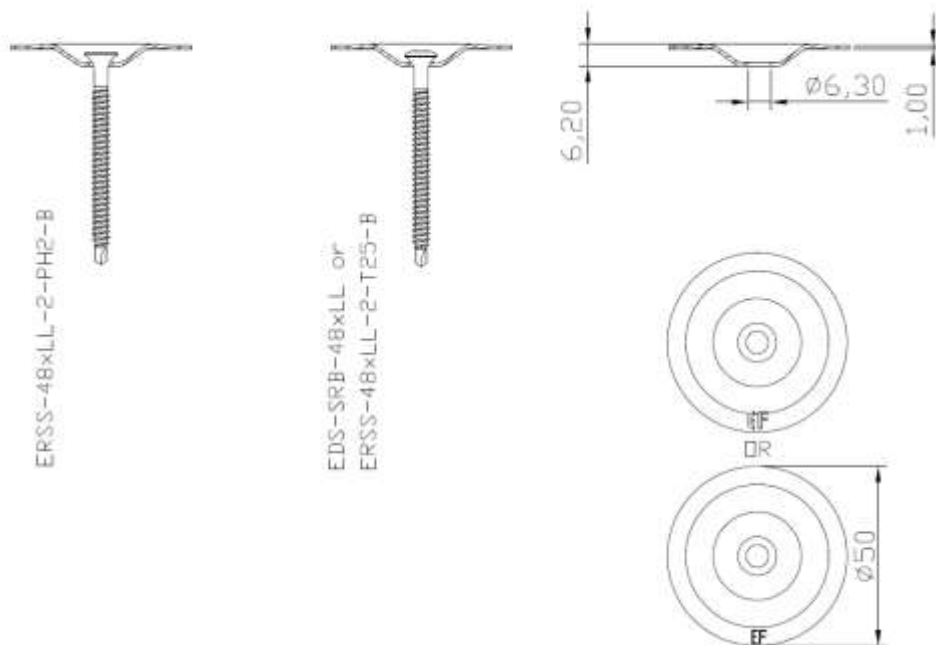
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DVP-EF-5010DFR or EPM-50D-4.85-1.0



DVP-EF-5010D or EPM-50D-6.3-1.0



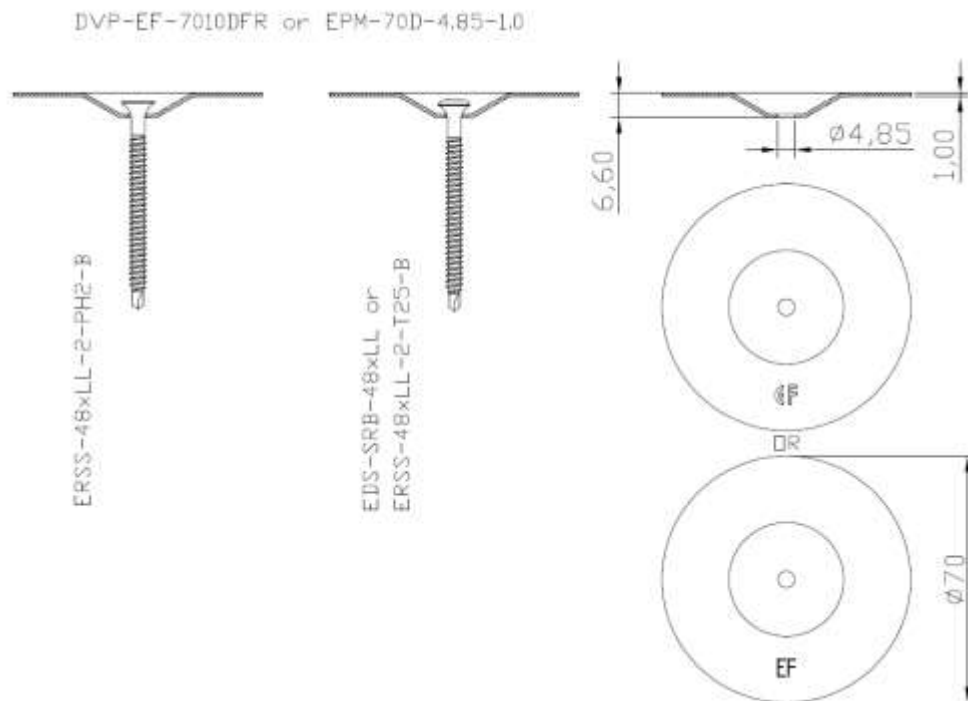
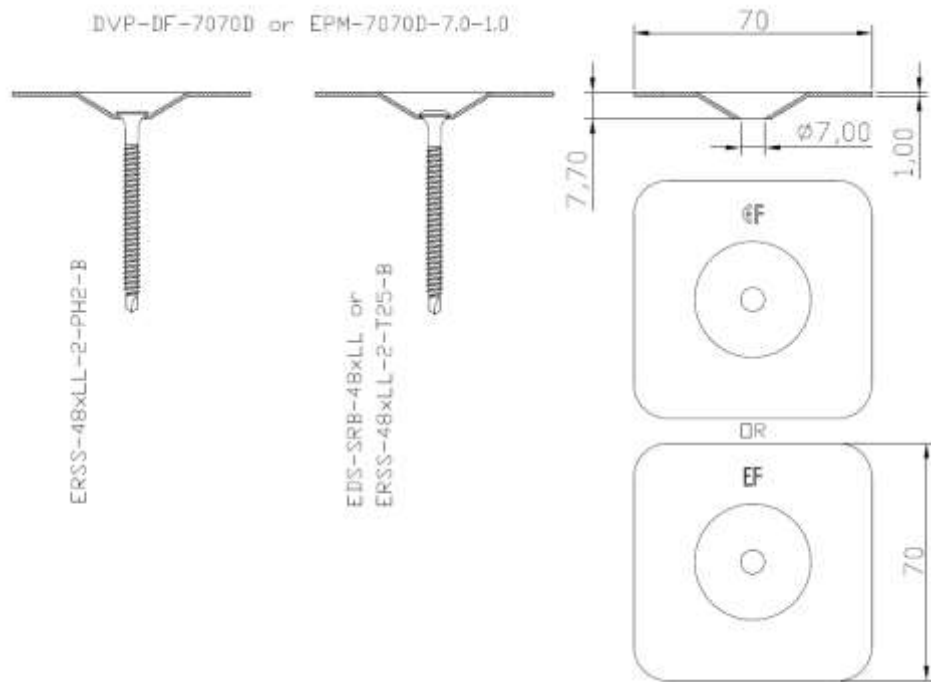
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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DVP-EF-5010N or EPM-50N-6.3-1.0 	
DVP-EF-7070D or EPM-7070D-4.85-1.0 	
Eurofast Flat Roof Fasteners	Annex D.11 of European Technical Assessment ETA-23/0651
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



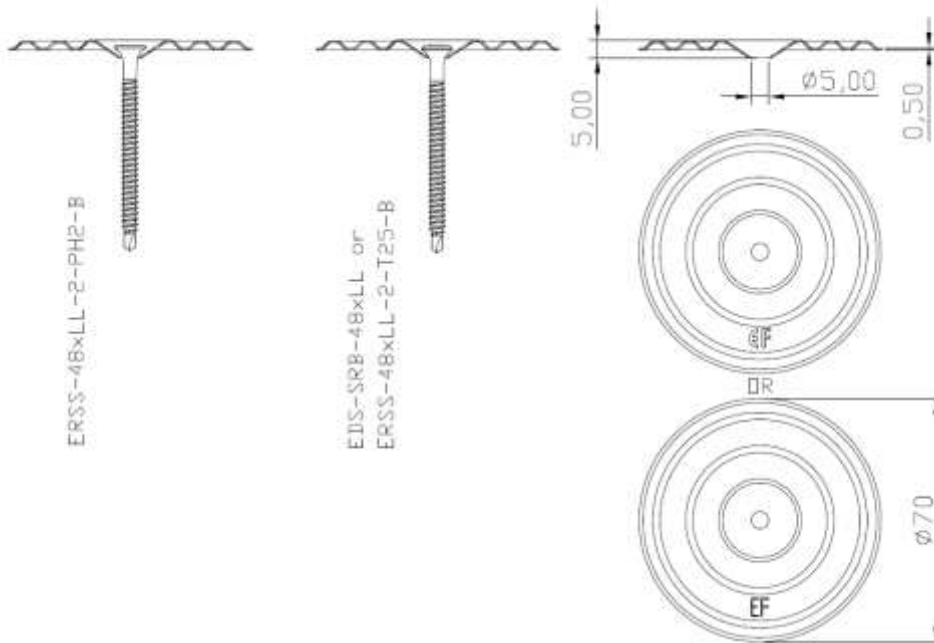
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

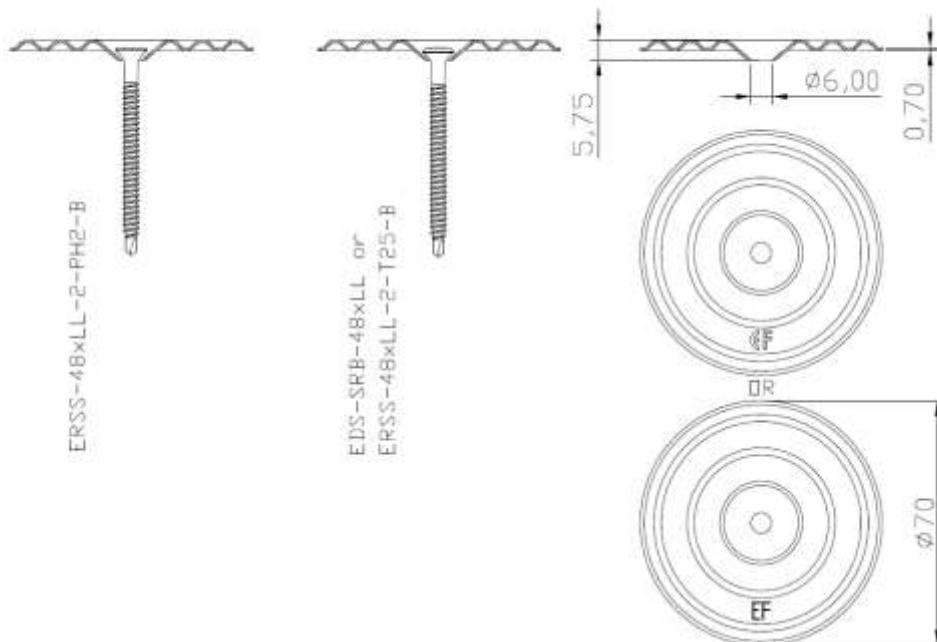
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DVP-EF-7005D or EPM-70D-5.0-0.5



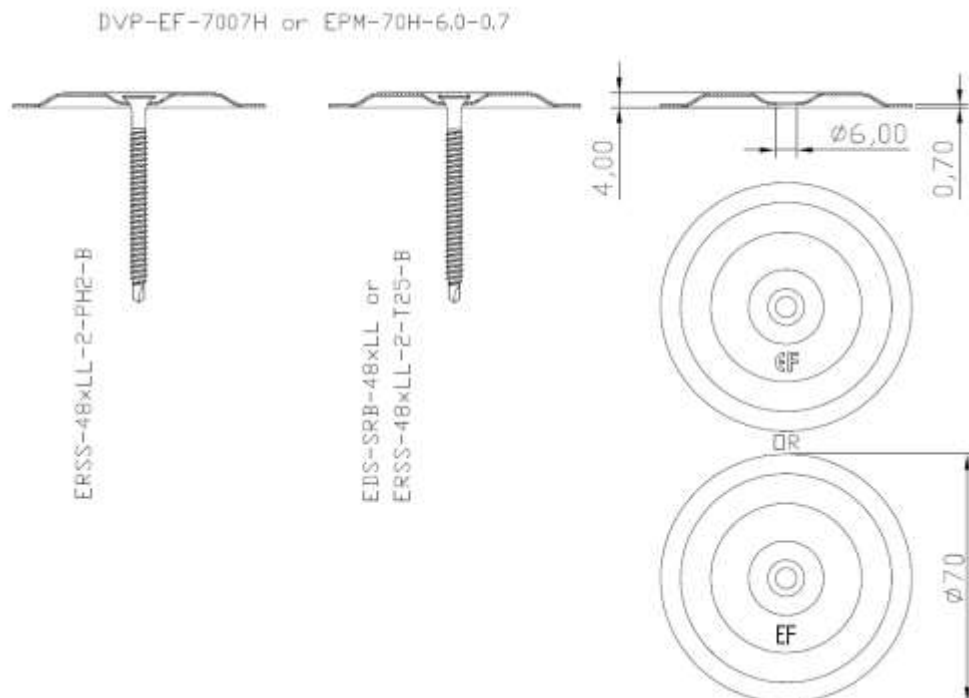
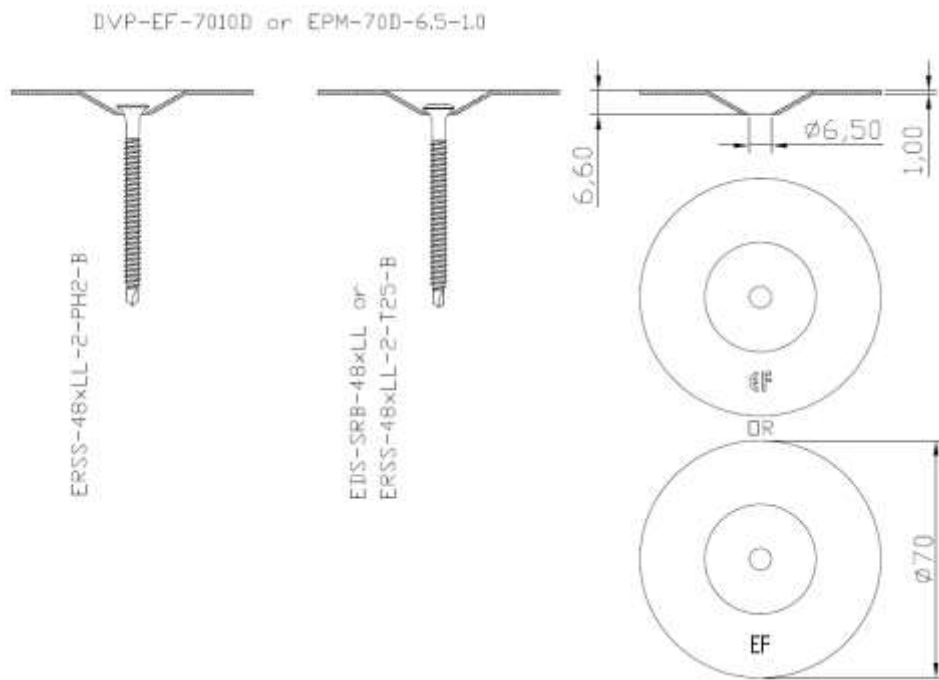
DVP-EF-7007D or EPM-70D-6.0-0.7


Eurofast Flat Roof Fasteners

 EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
 (ERSS-48xLL-2-PH2-B)

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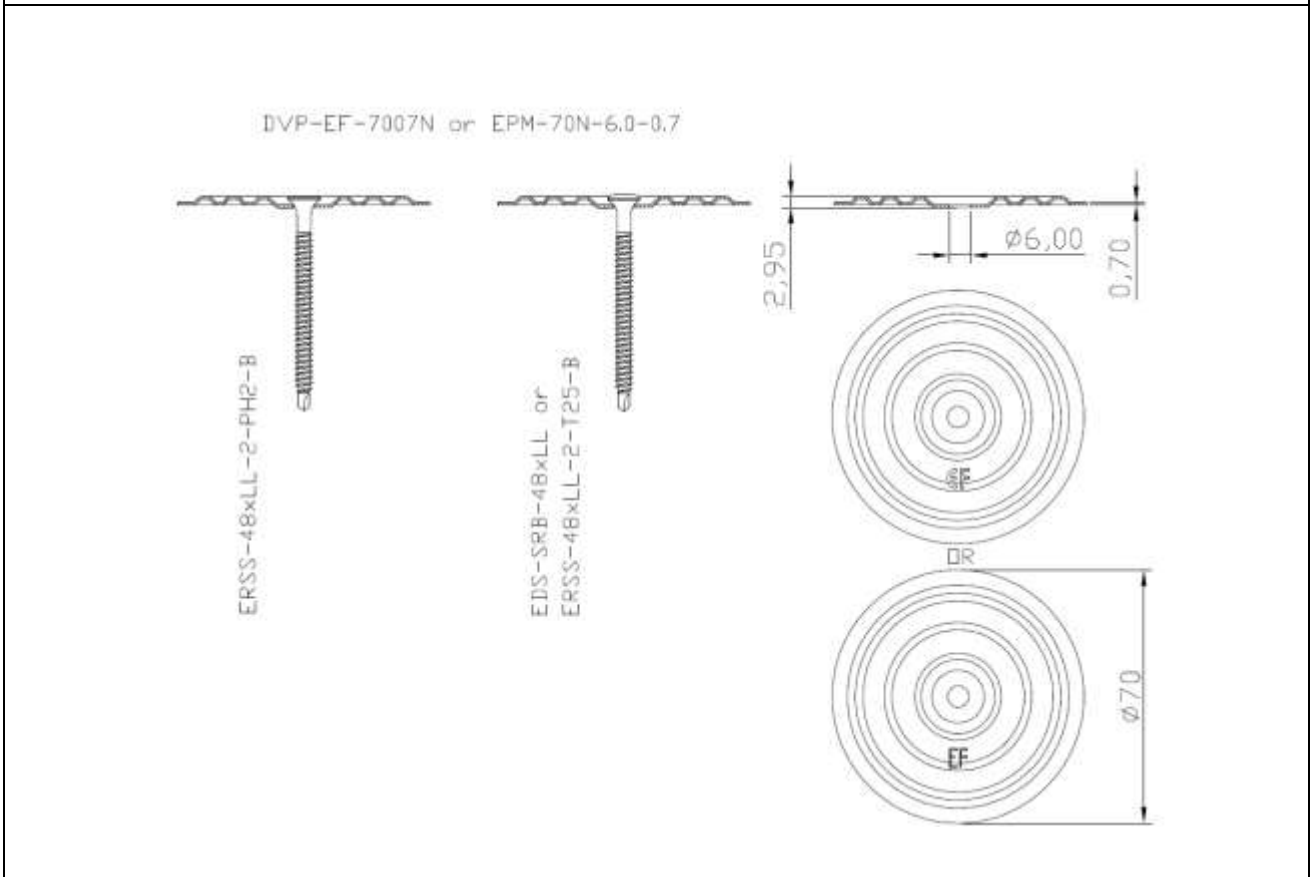
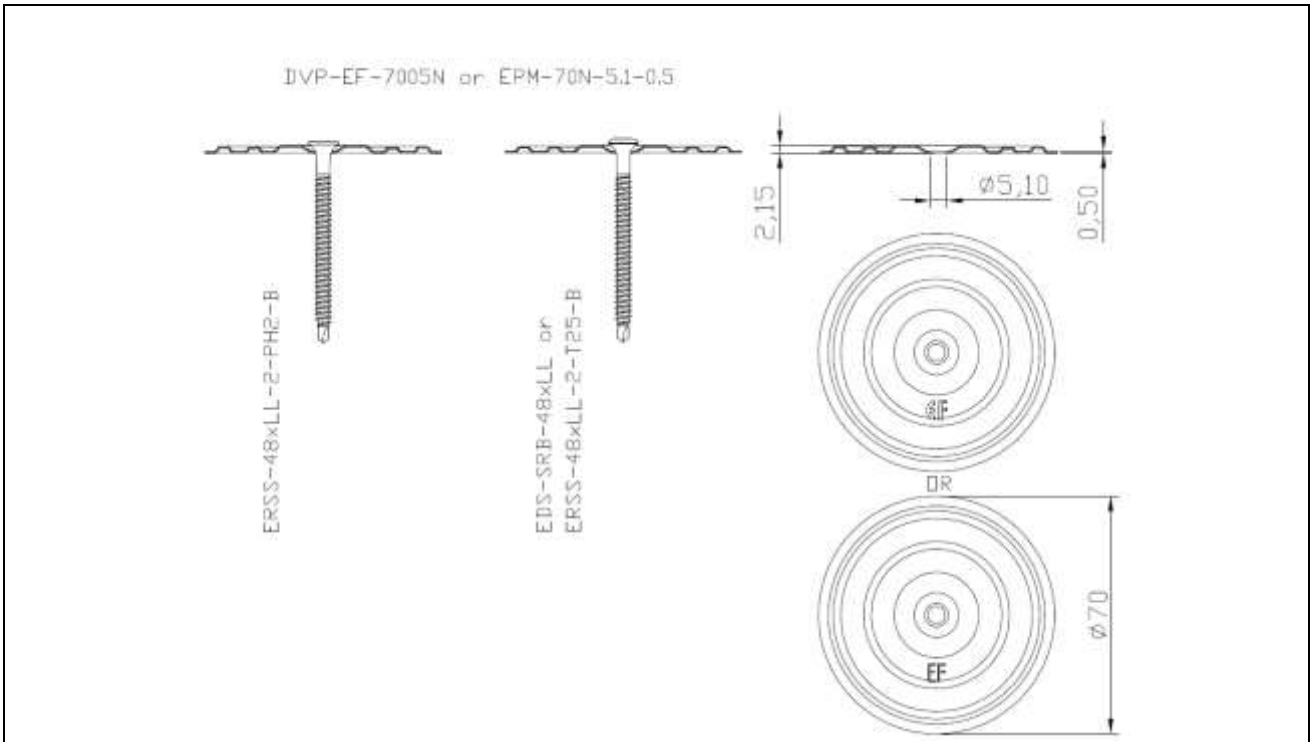


Eurofast Flat Roof Fasteners

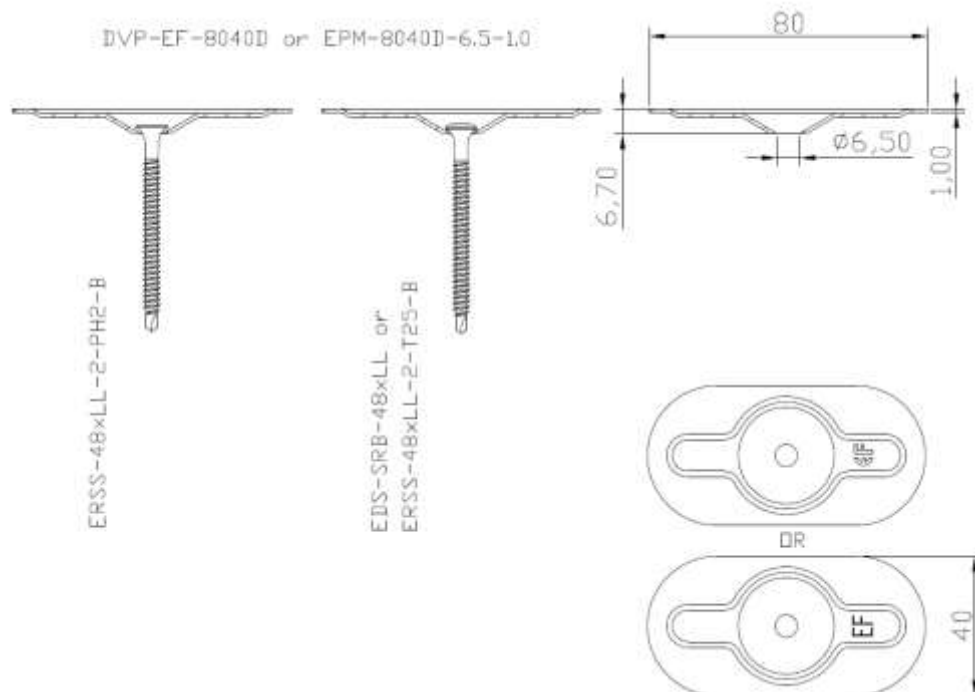
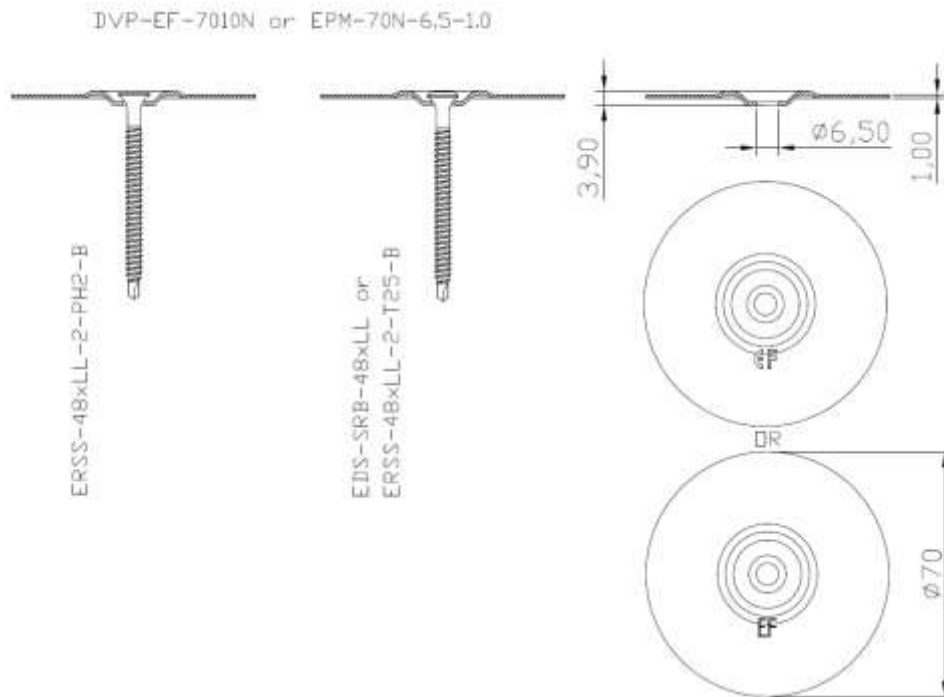
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



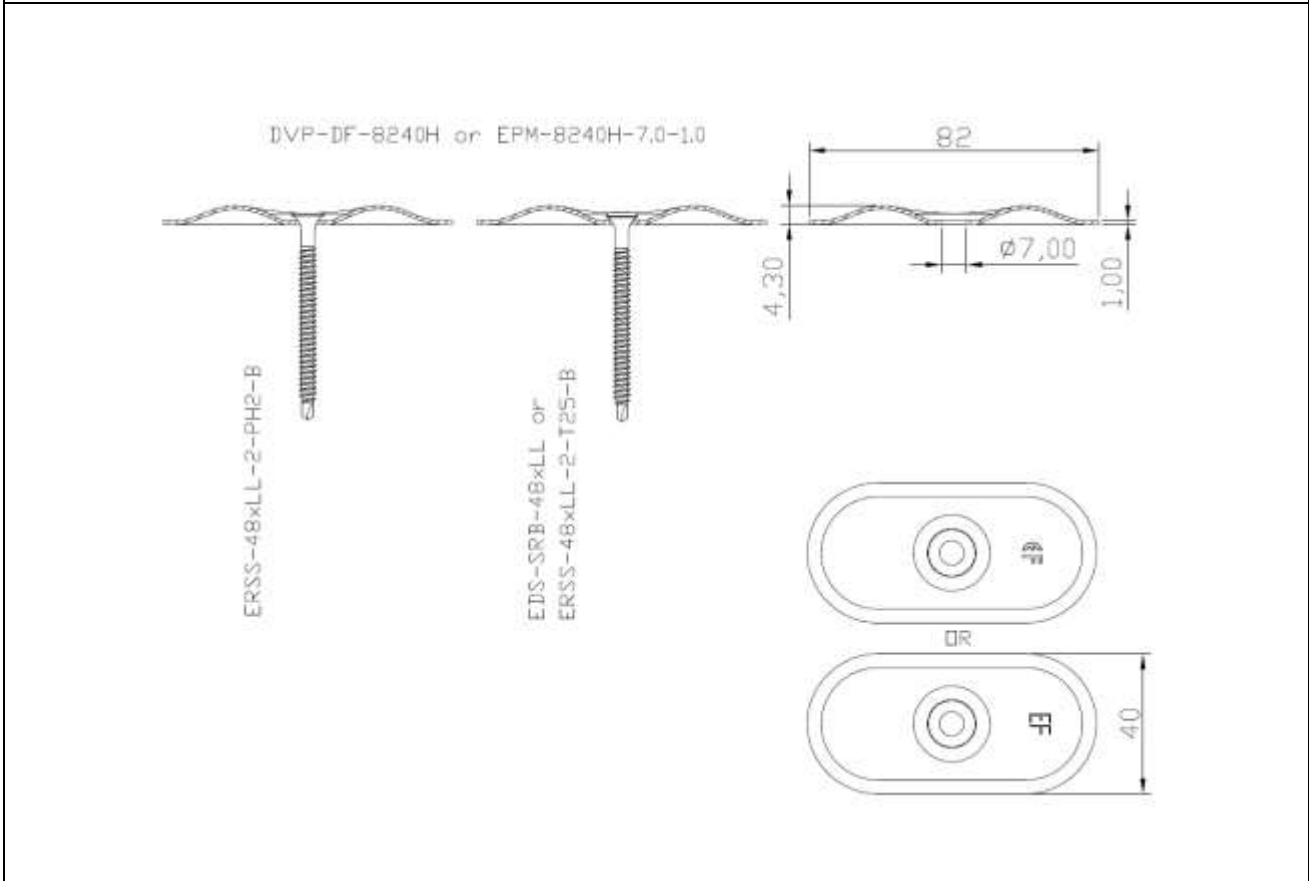
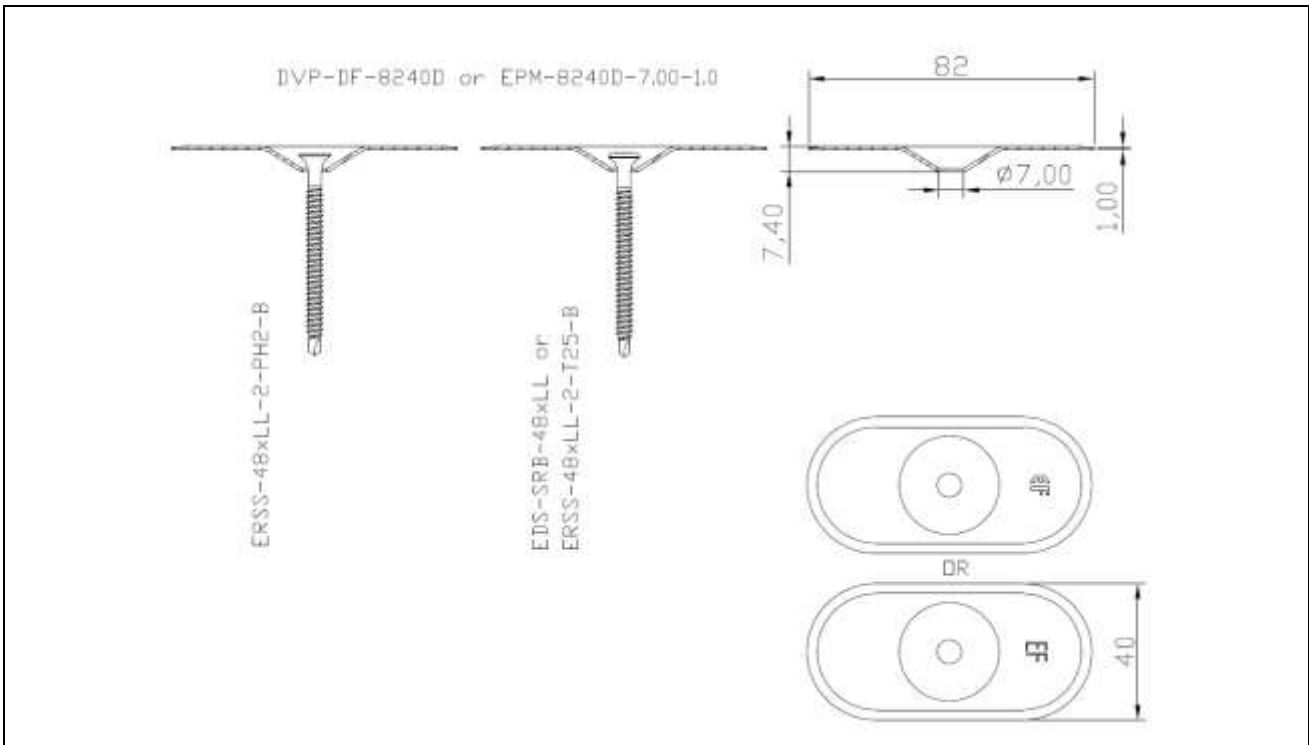
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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<p style="text-align: center;">DVP-EF-8040N or EPM-8040N-6,5-1,0</p> <p style="text-align: center;">ERSS-48xLL-2-PH2-B</p> <p style="text-align: center;">EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p>	<p style="text-align: center;">ERSS-48xLL-2-PH2-B</p> <p style="text-align: center;">EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p>
<p style="text-align: center;">DVP-EF-8240D or EPM-8240D-4,85-1,0</p> <p style="text-align: center;">ERSS-48xLL-2-PH2-B</p> <p style="text-align: center;">EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p>	<p style="text-align: center;">ERSS-48xLL-2-PH2-B</p> <p style="text-align: center;">EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p>
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)</p>	<p>Annex D.17 of European Technical Assessment ETA-23/0651</p>

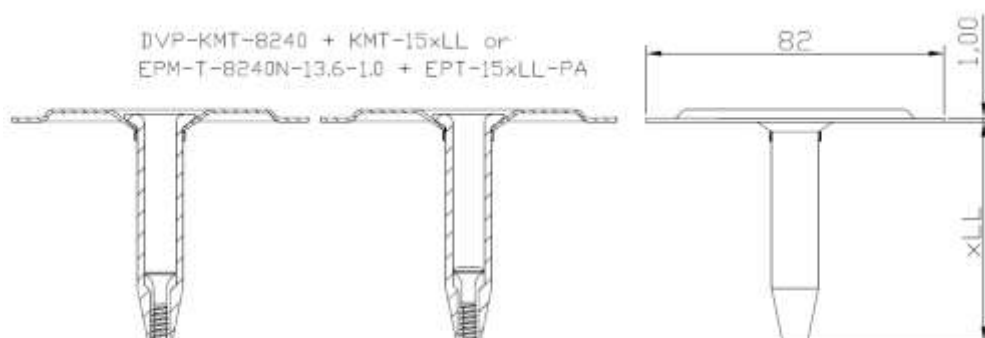
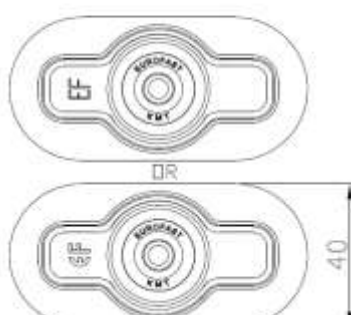
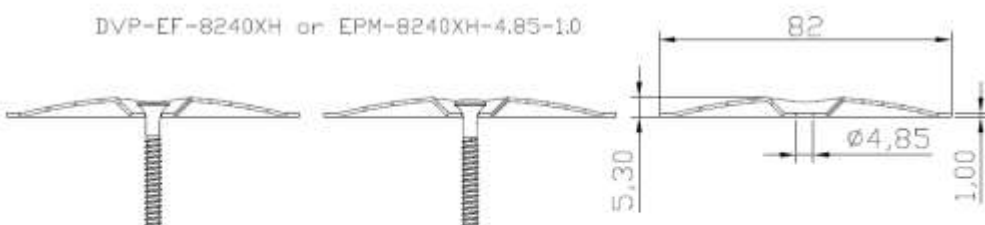



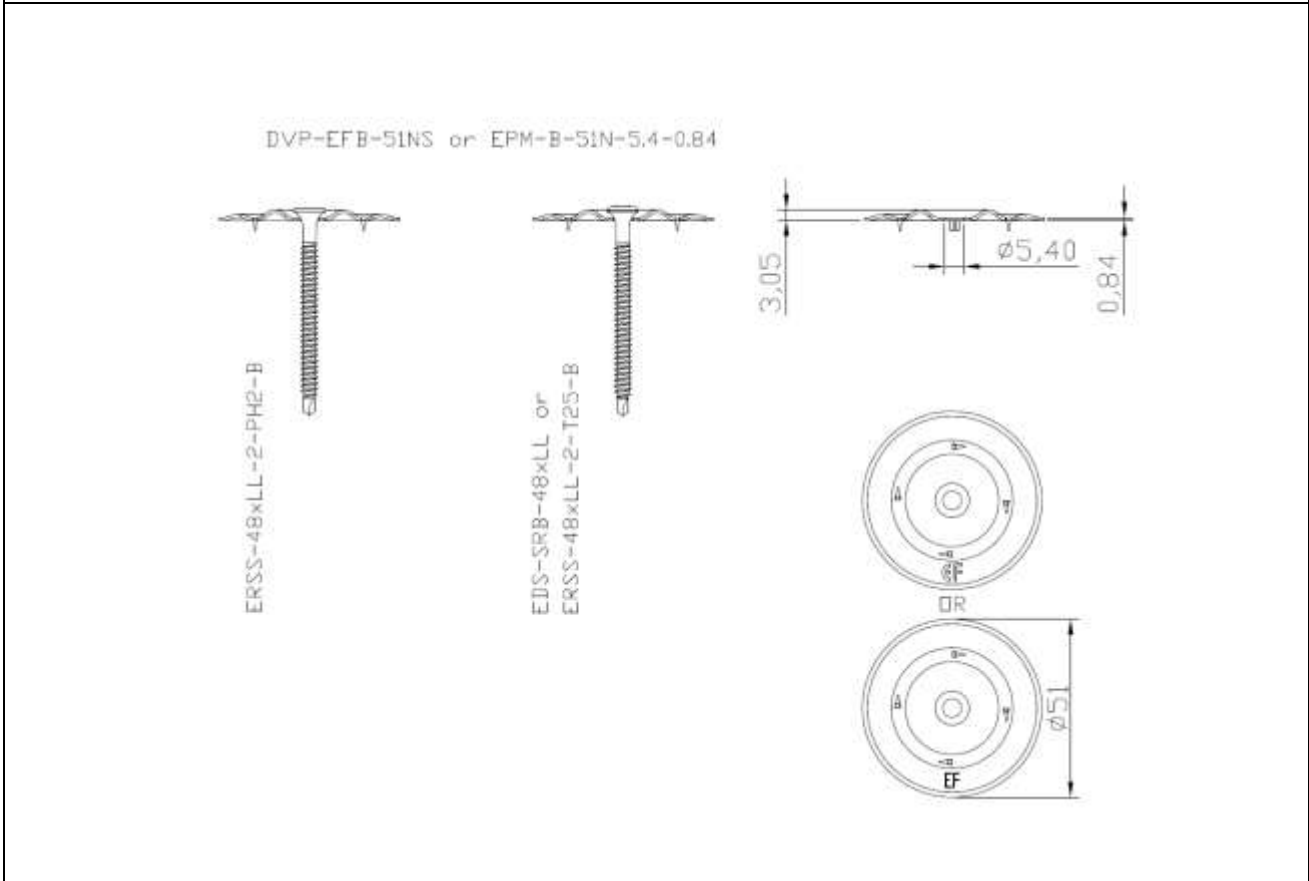
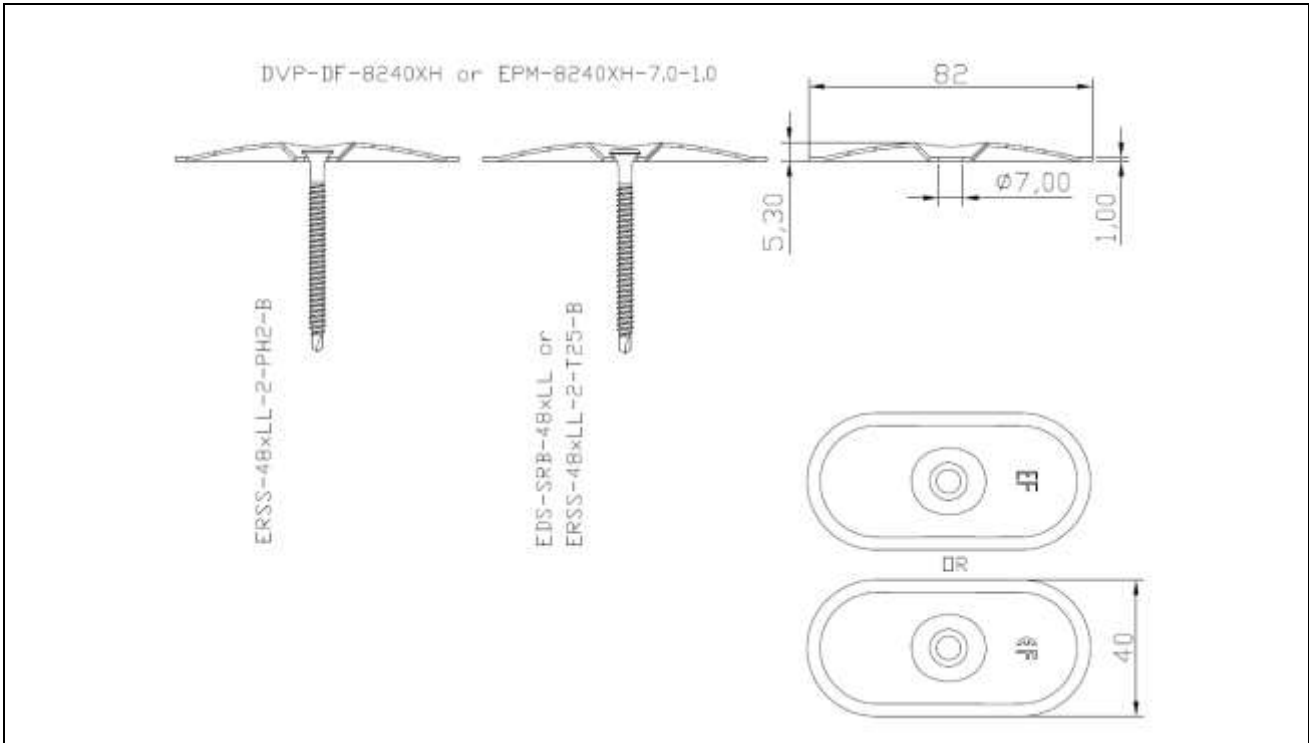
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA</p>  <p>ERSS-48xLL-2-PH2-B</p> <p>EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p> 	
<p>DVP-EF-8240XH or EPM-8240XH-4.85-1.0</p>  <p>ERSS-48xLL-2-PH2-B</p> <p>EDS-SRB-48xLL or ERSS-48xLL-2-T25-B</p> 	
<p align="center">Eurofast Flat Roof Fasteners</p> <p align="center">EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)</p>	<p align="center">Annex D.19 of European Technical Assessment ETA-23/0651</p>

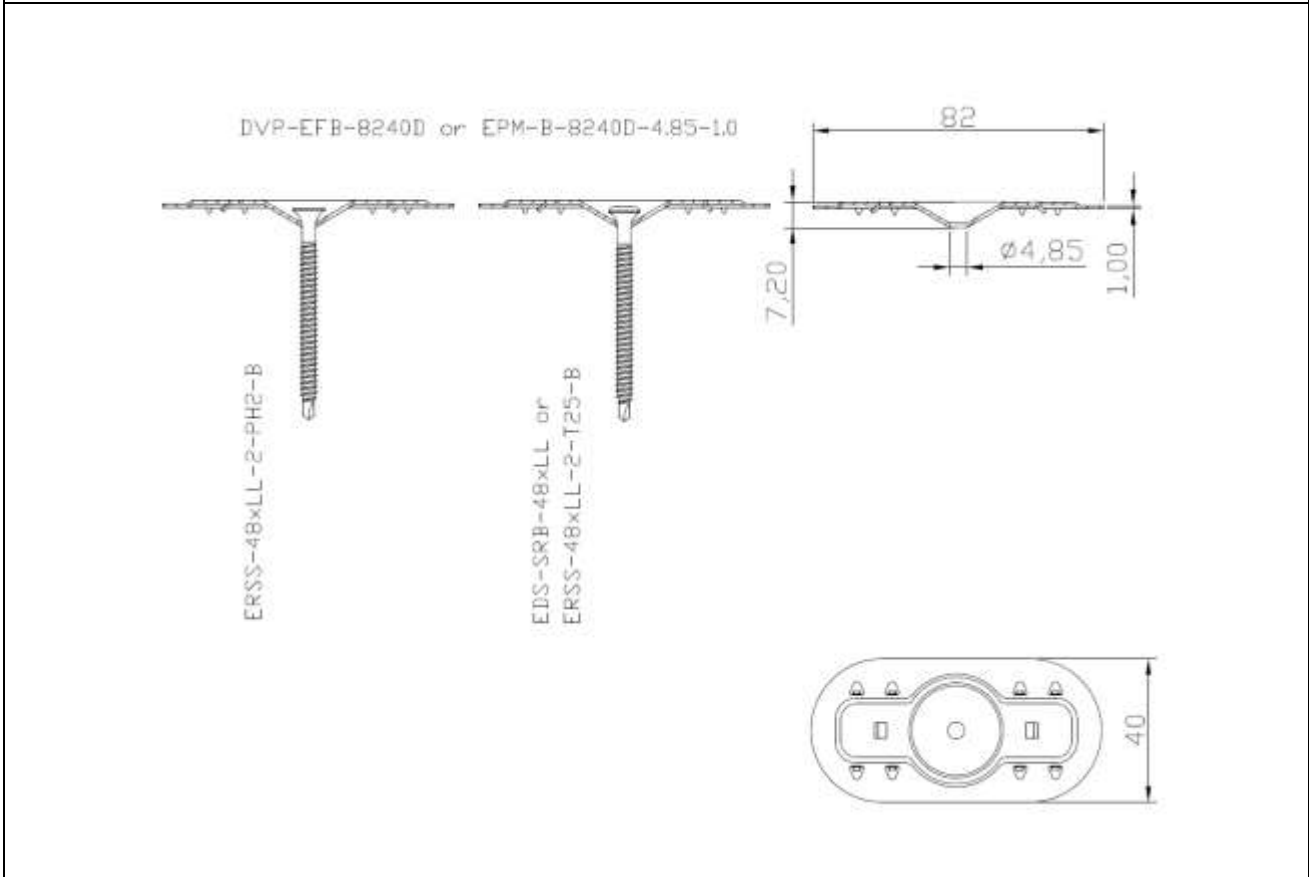
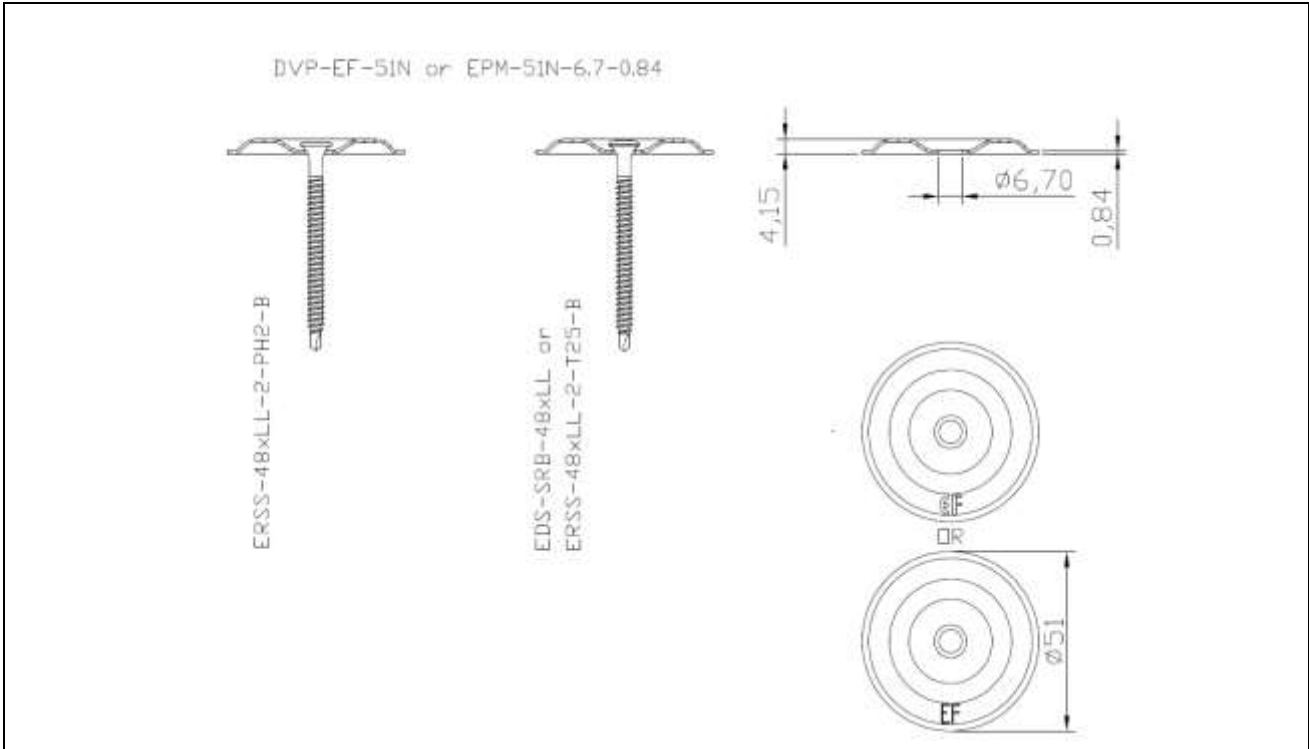


Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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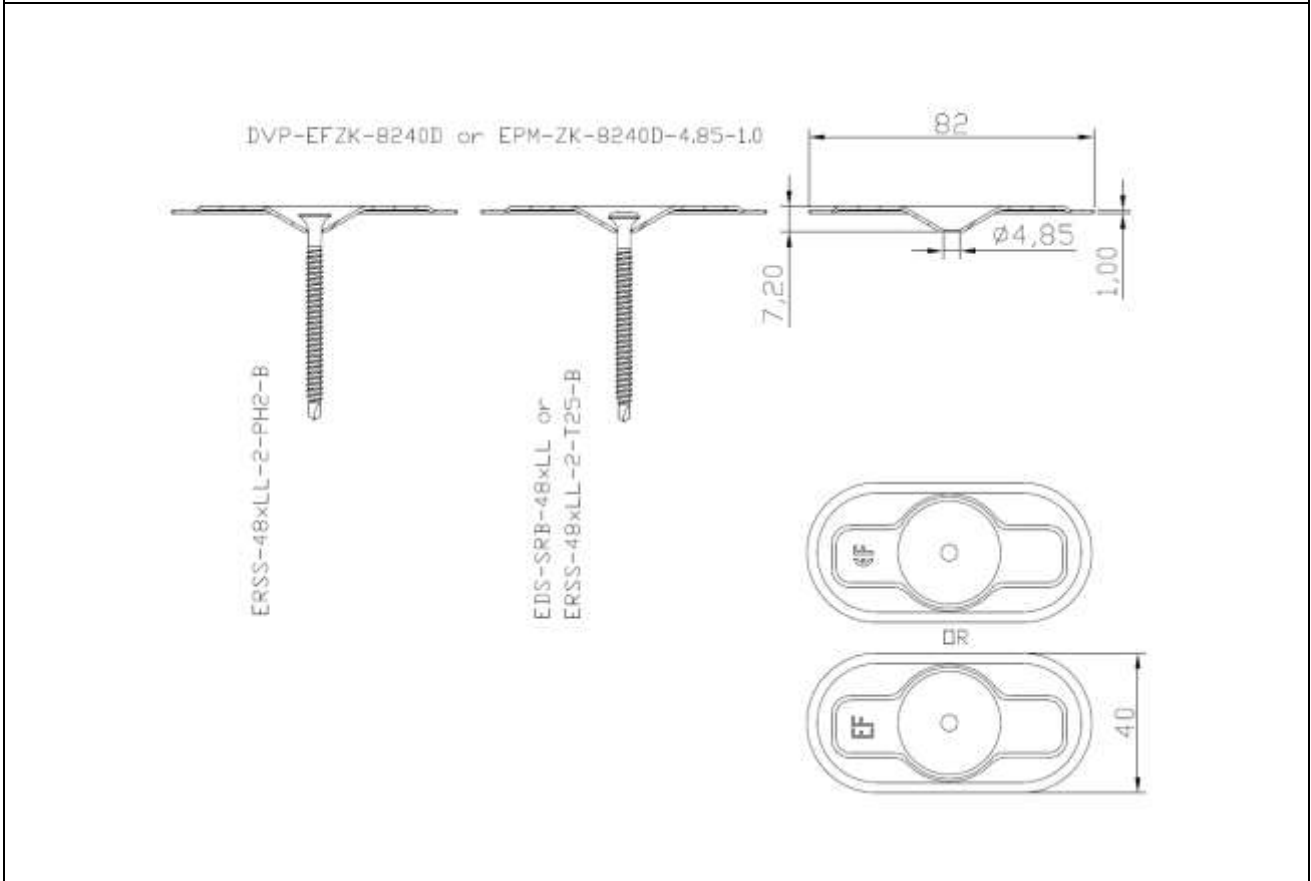
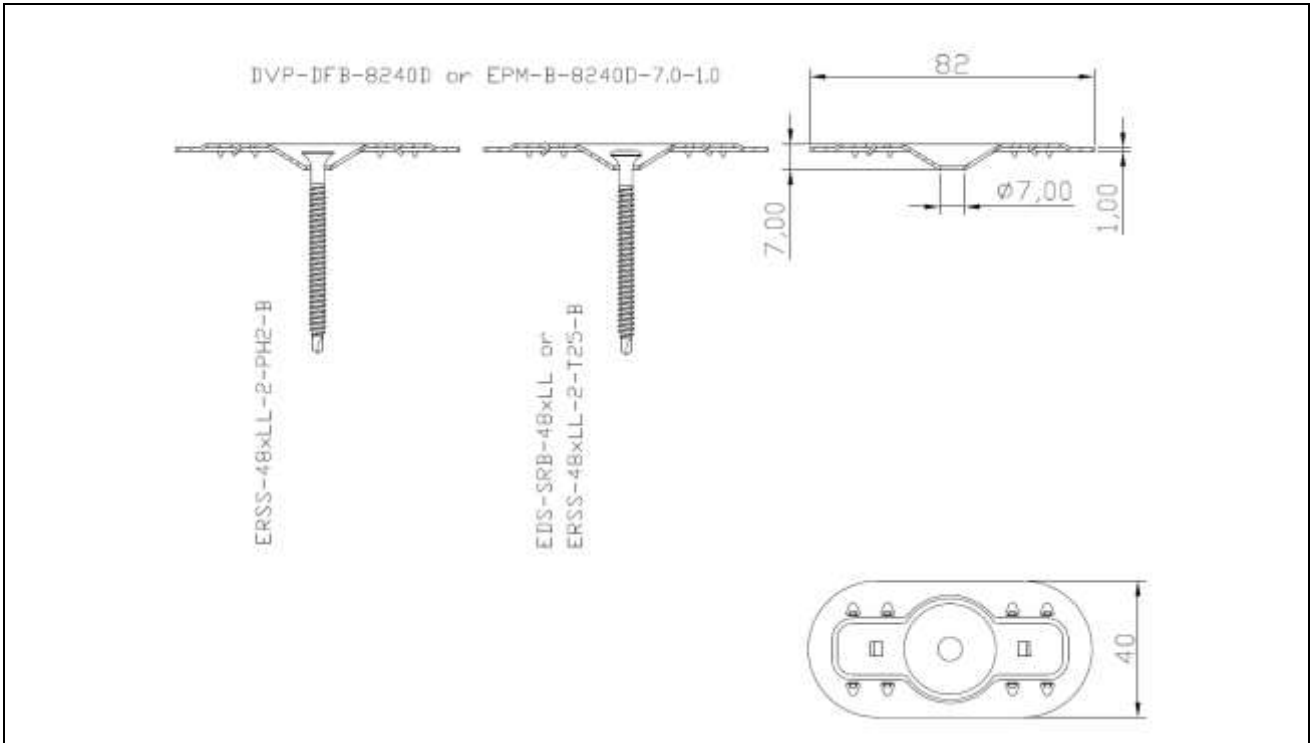


Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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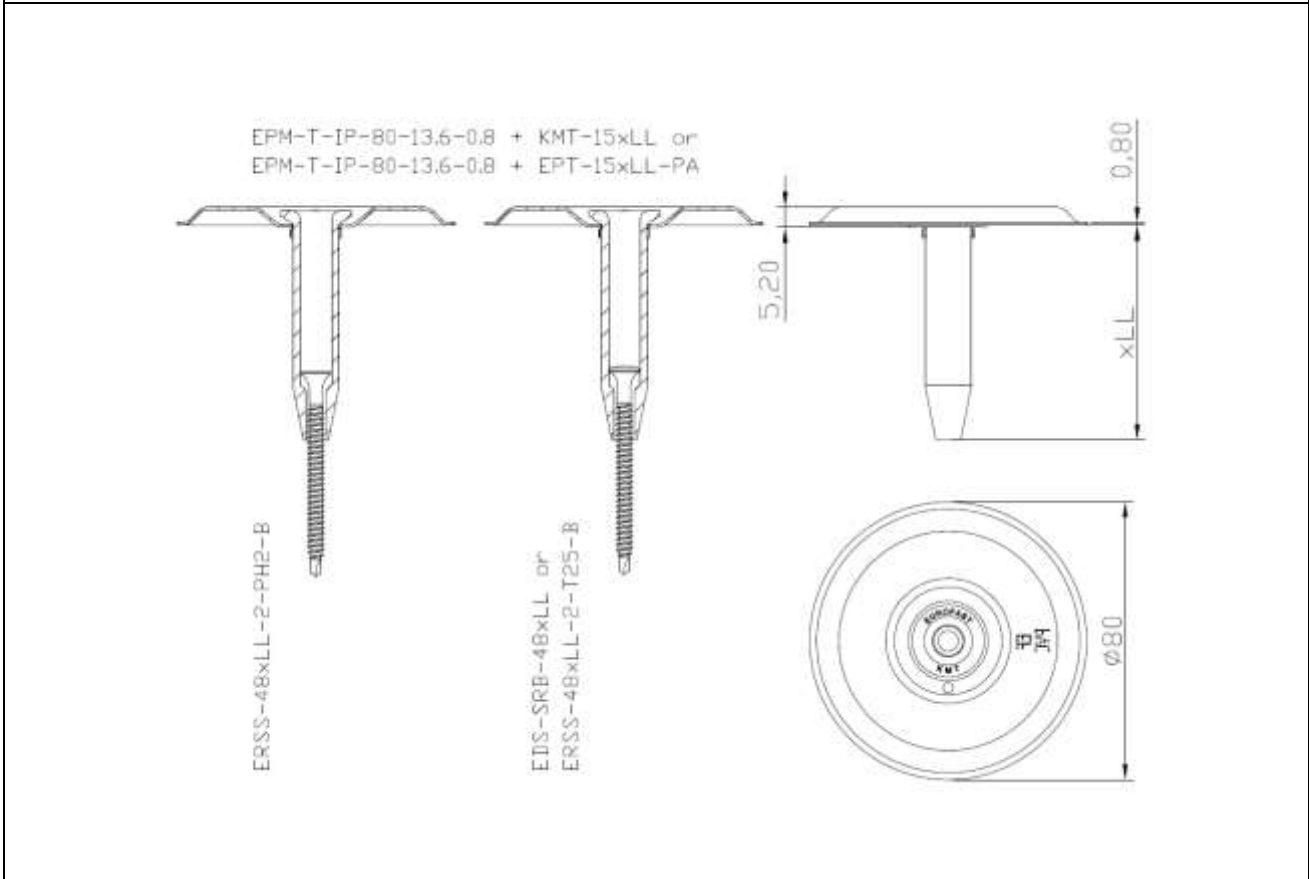
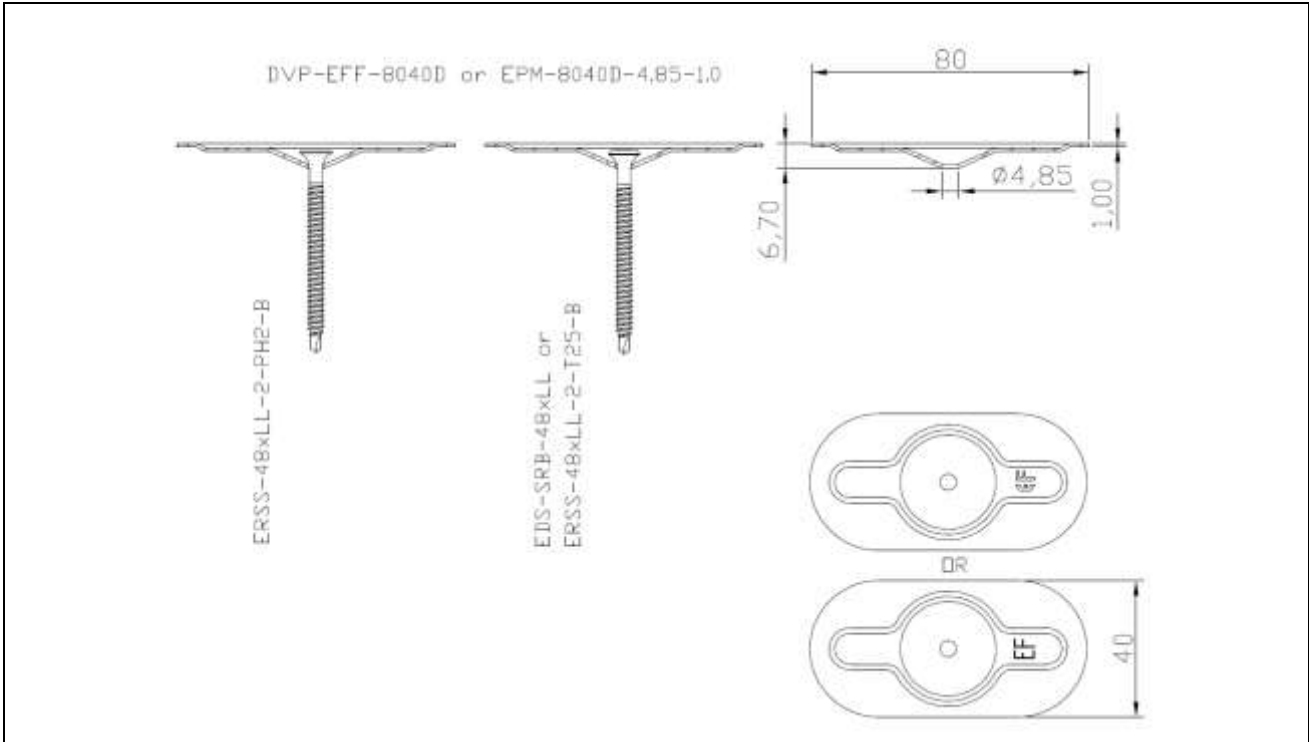


Eurofast Flat Roof Fasteners

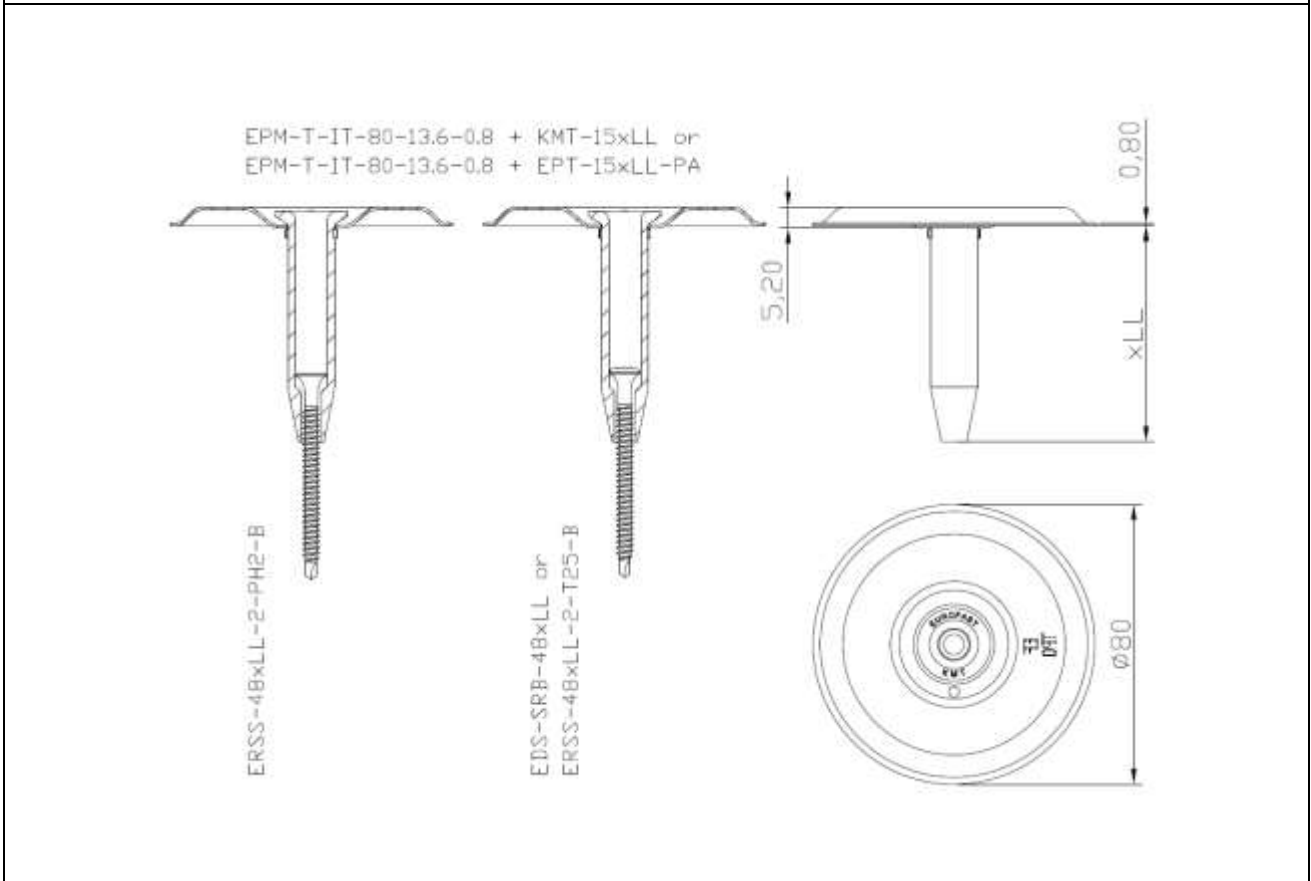
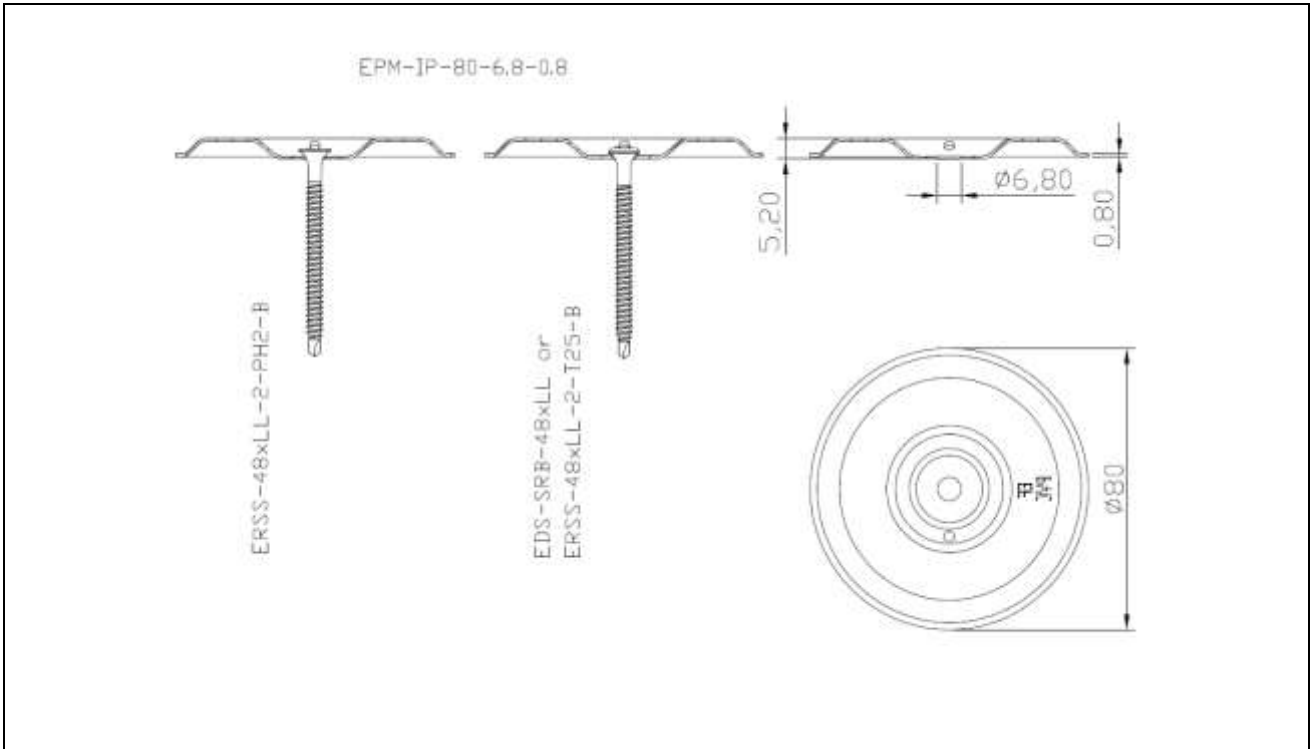
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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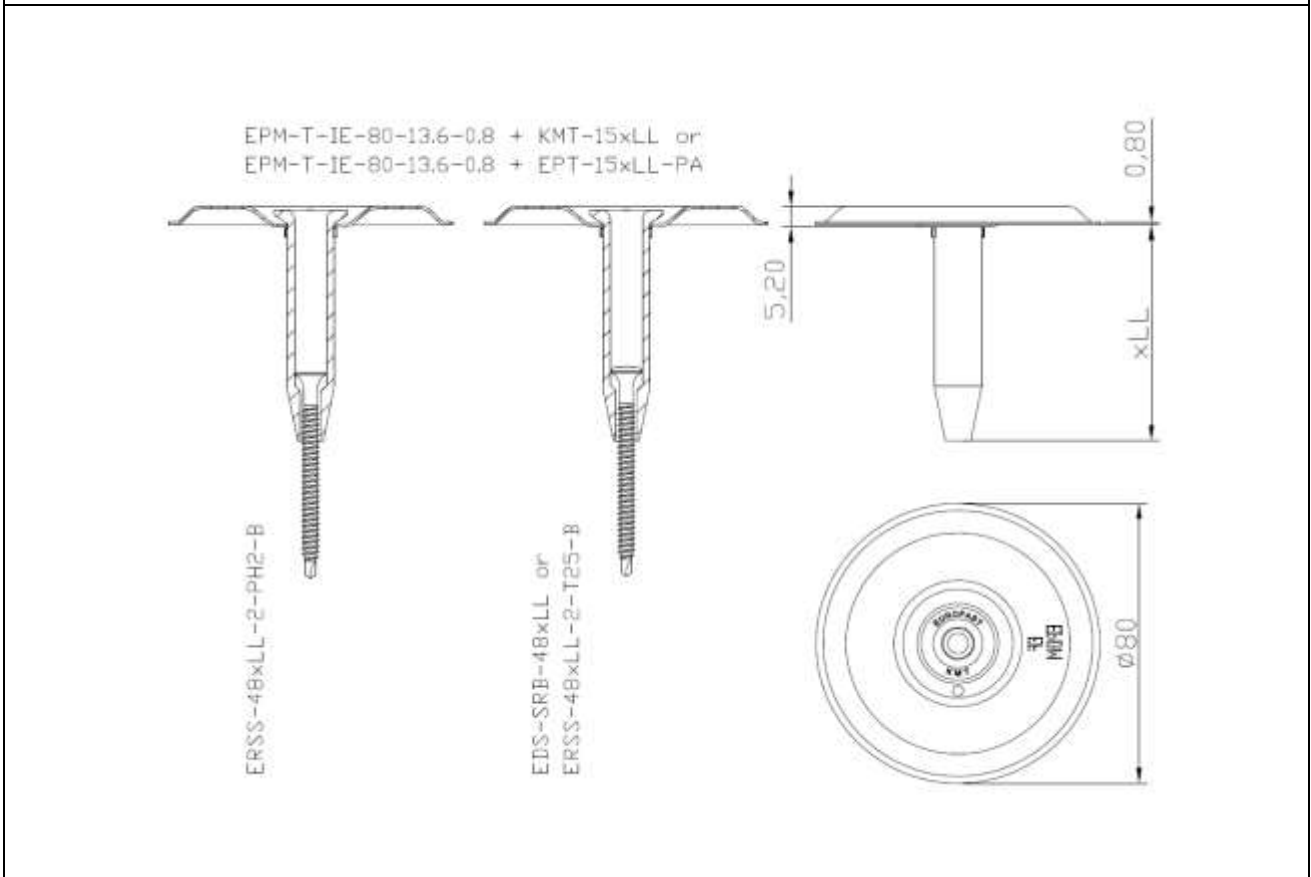
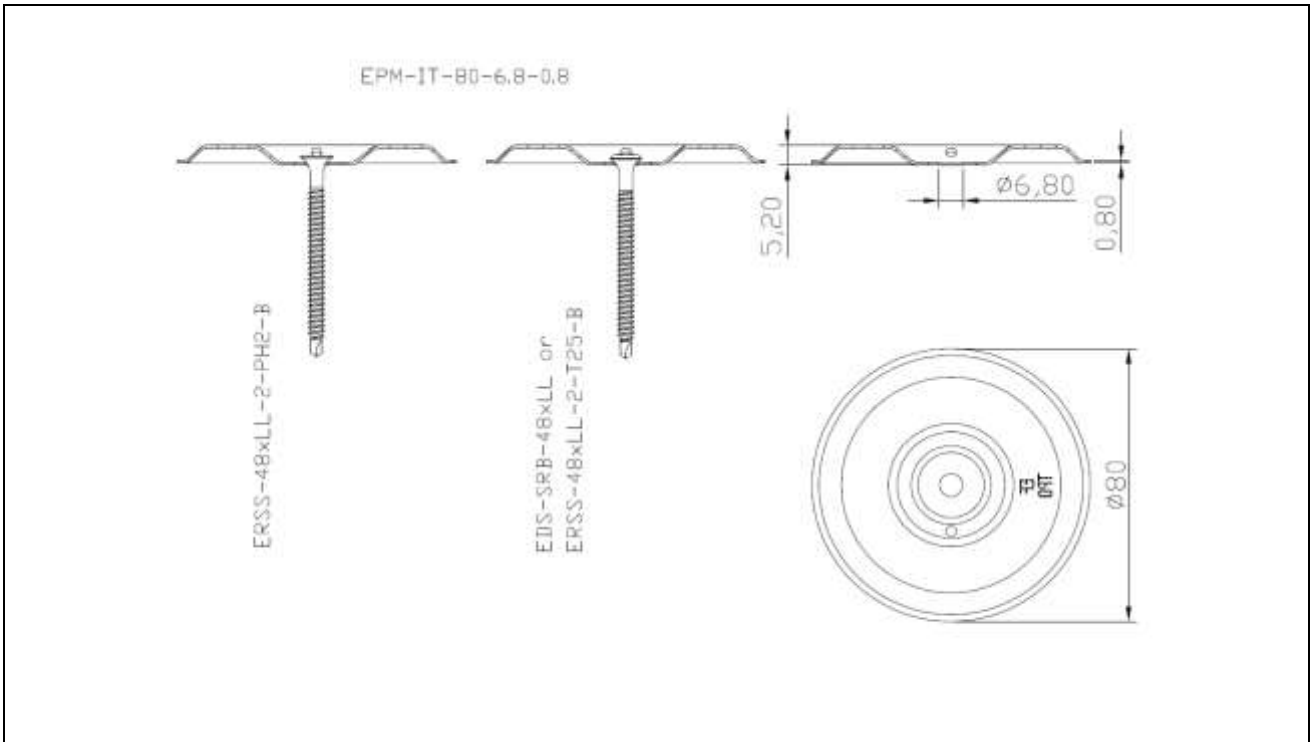
Eurofast Flat Roof Fasteners	Annex D.23 of European Technical Assessment ETA-23/0651
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



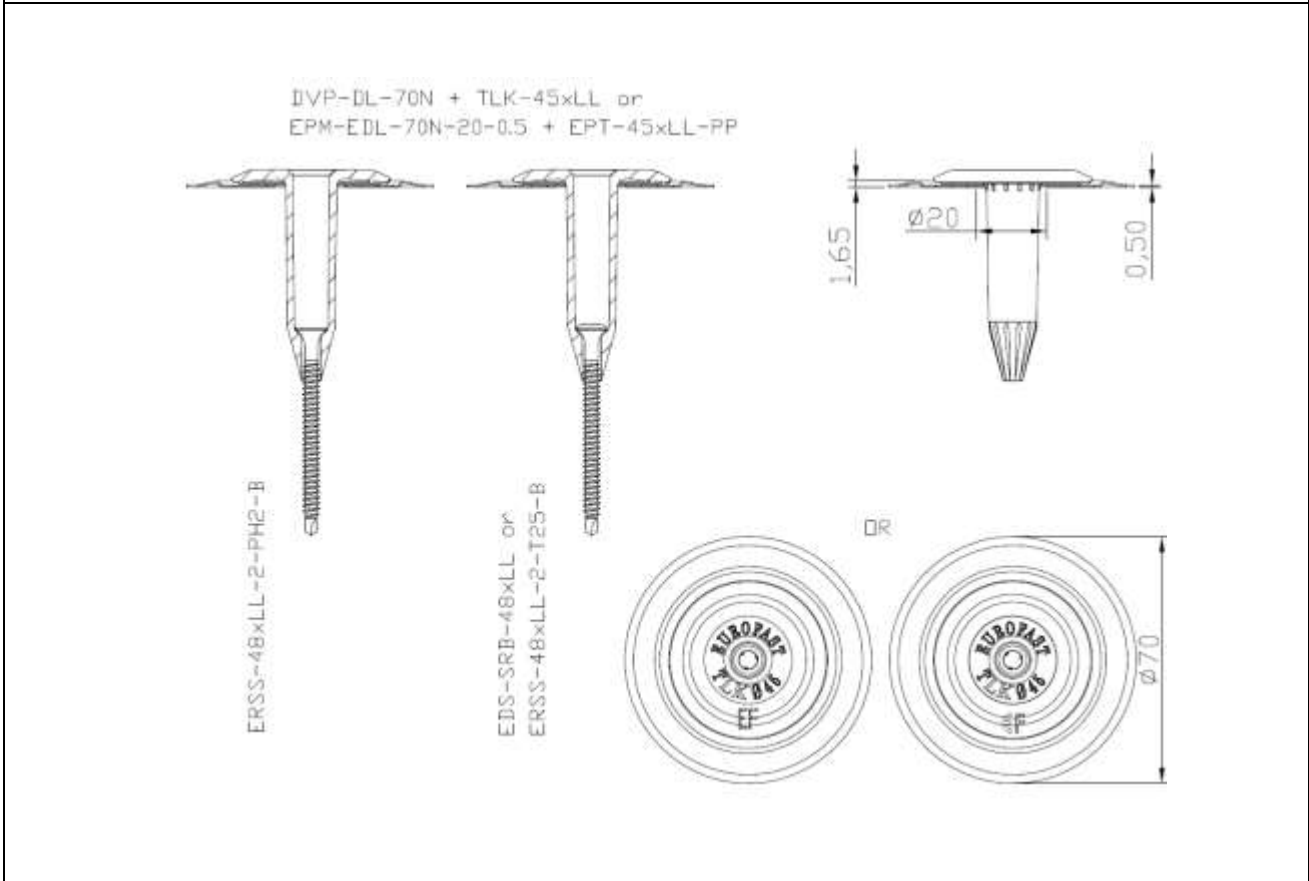
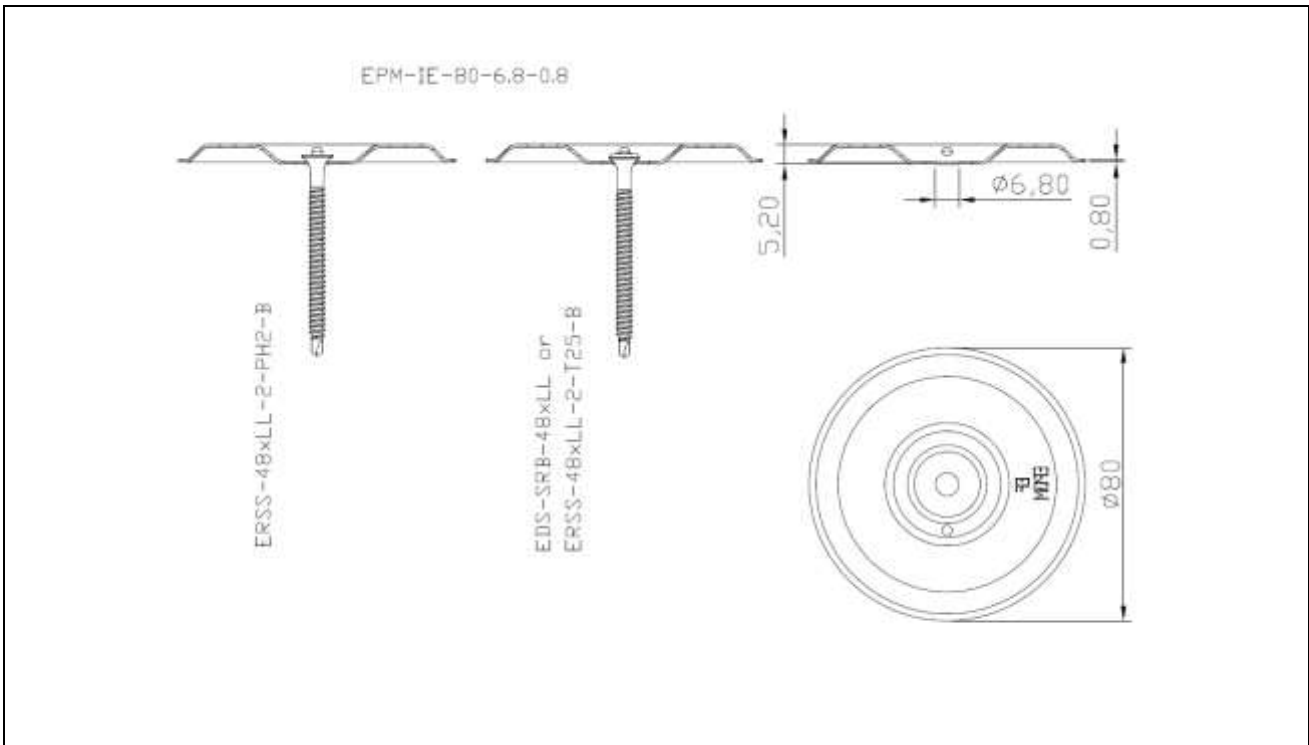
Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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Eurofast Flat Roof Fasteners	Annex D.25 of European Technical Assessment ETA-23/0651
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

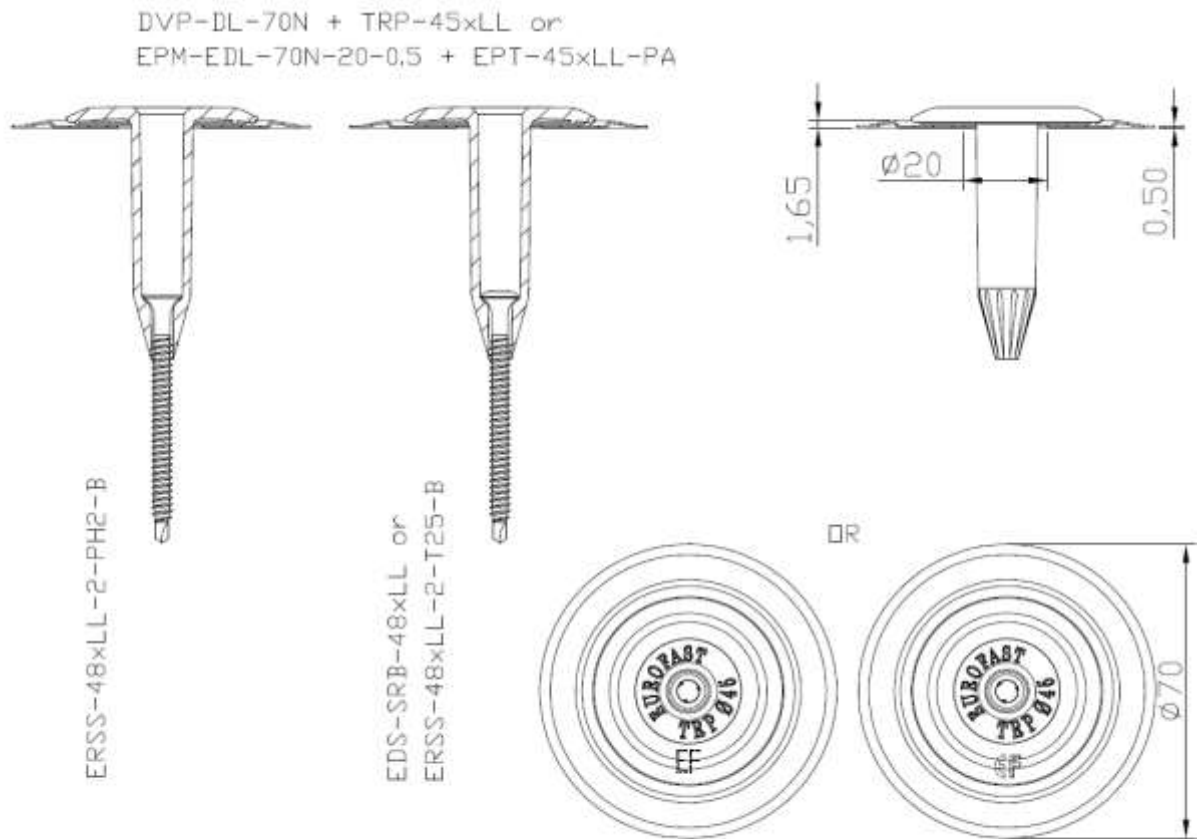


Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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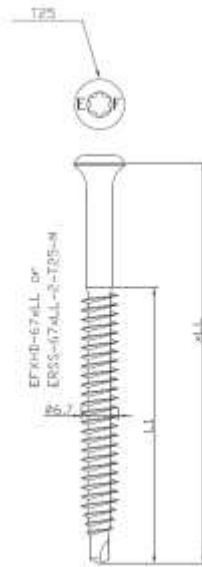


Eurofast Flat Roof Fasteners

EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)
(ERSS-48xLL-2-PH2-B)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)									
Steel S320GD *									
t [mm]	0,50	0,60	0,63	0,70	0,75	0,80	0,88	1,00	1,25
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	1,10	1,52	1,52	1,98	2,09	2,59	2,59	2,94	3,48

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)								
t [mm]	OSB/3				Chipboard	Plywood		Timber C24
	16	18	21	25	19	18	21	24
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	0,67	0,95	1,12	1,42	0,94	0,94	1,25	1,61

Characteristic Values of Axial Pull-Through * Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-51N-5.6-0.84
	DVP-EF-7010D (EPM-70D-6.5-1.0)	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	-	EPM-IP-80-6.8-0.8
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	-	EPM-IT-80-6.8-0.8
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-	EPM-IE-80-6.8-0.8
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-	-
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	5,05	3,89	2,96	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EFXHD-67xLL (ERSS-67xLL-2-T25-M)

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Characteristic Values of Axial Pull-Through * Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

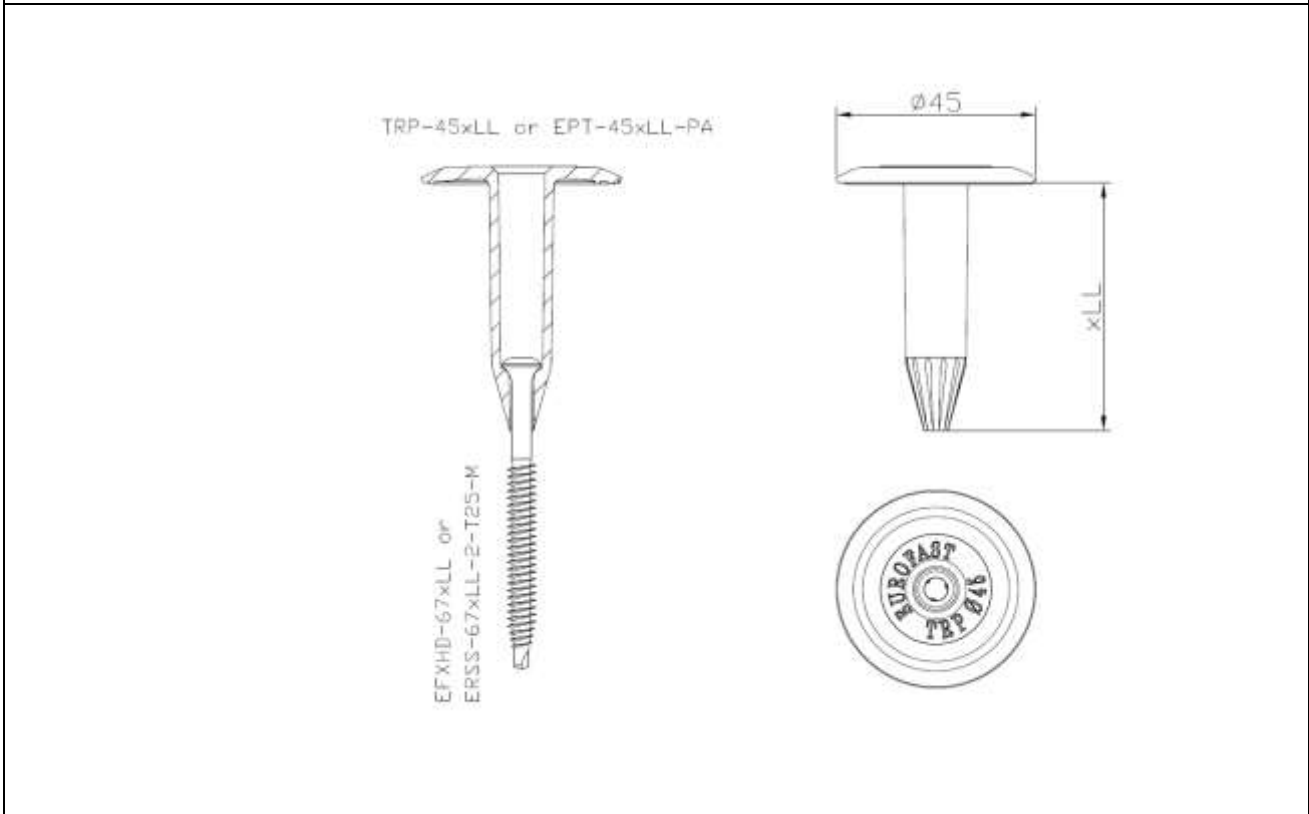
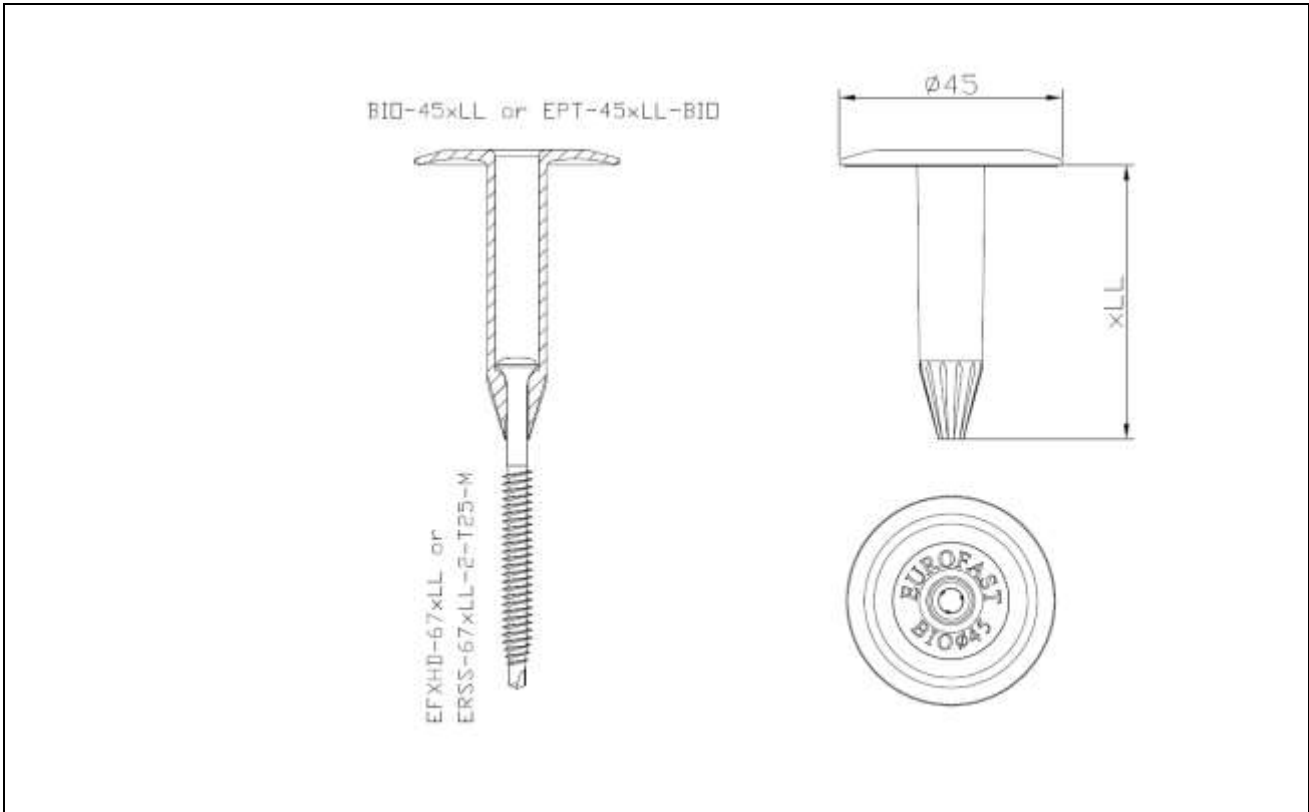
Screw: EFXHD-67xLL (ERSS-67xLL-2-T25-M)			
Metal pressure plate:			
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)		
DVP-DF-8240D	(EPM-8240D-7.0-1.0)		
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)		
DVP-EF-51N	(EPM-51N-6.7-0.84)		
EPM-51N-5.6-0.84			
DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)		
EPM-IP-80-6.8-0.8			
EPM-IT-80-6.8-0.8			
EPM-IE-80-6.8-0.8			
Pressure plate with tube:		Termination bar:	
BIO-45xLL	(EPT-45xLL-BIO)	EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
TRP-45xLL	(EPT-45xLL-PA)	EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)		
TWP-8040xLL	(EPT-8040xLL-PA)		
TLK-45xLL	(EPT-45xLL-PP)		
HTLK-45xLL	(EPT-O-45xLL-PP)		
TLK-75xLL	(EPT-75xLL-PP)		
Substrate:			
Steel S280		EN 10346	
Steel S320		EN 10346	
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1	
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1	
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2	
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338	
Installation data:			
Max. drilling capacity in steel substrate:		2x1,25 mm	
Head type:		Raised Bugle Head	
Recess:		TX25	
Fixing in steel substrate:		Min. 20 mm of the screw fixed through the steel sheet	
Fixing in wooden and wood-based substrate:		Full thread through the substrate or minimum embedment depth	
Installation force of installation tool in:			
- steel substrate		25 kg	
- wooden and wood-based substrate		35 kg	
Installation tool speed:		1600 - 1800 rpm	

Eurofast Flat Roof Fasteners

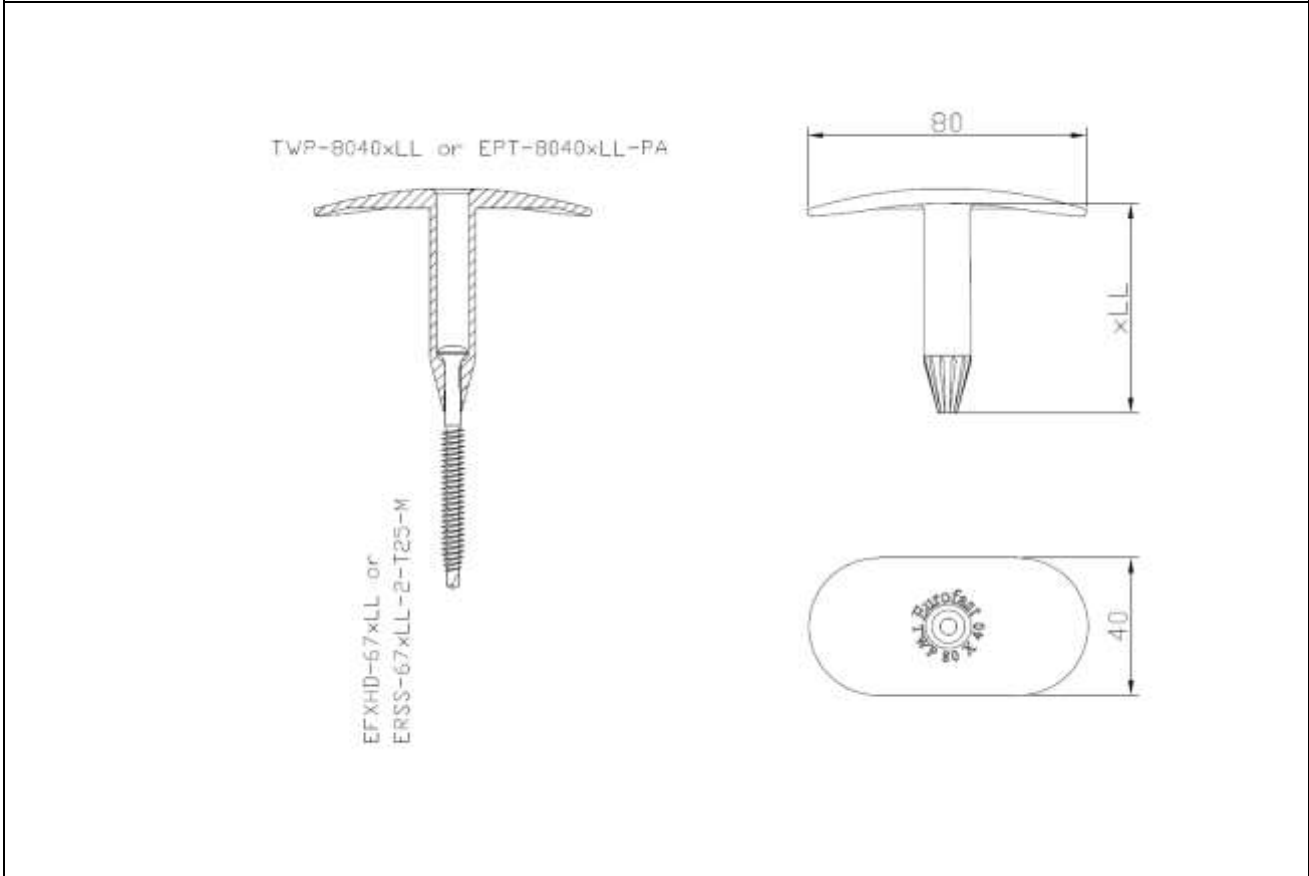
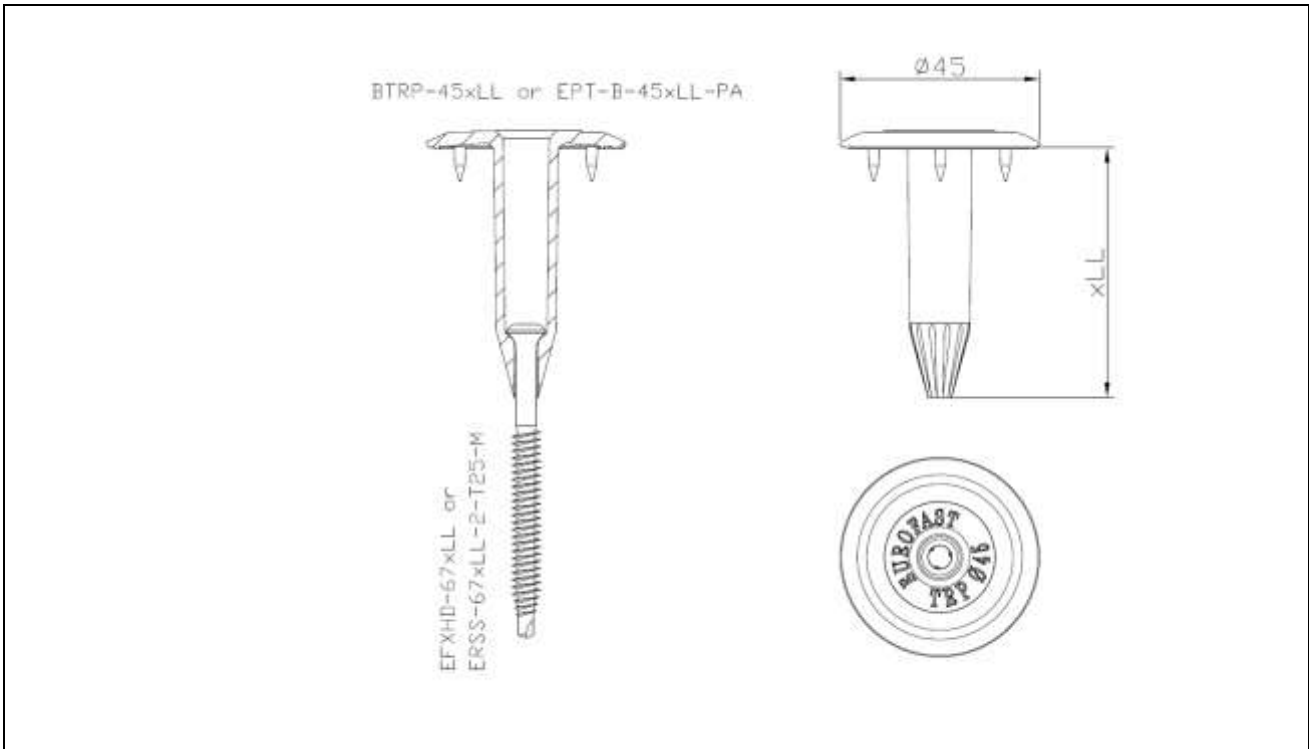
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

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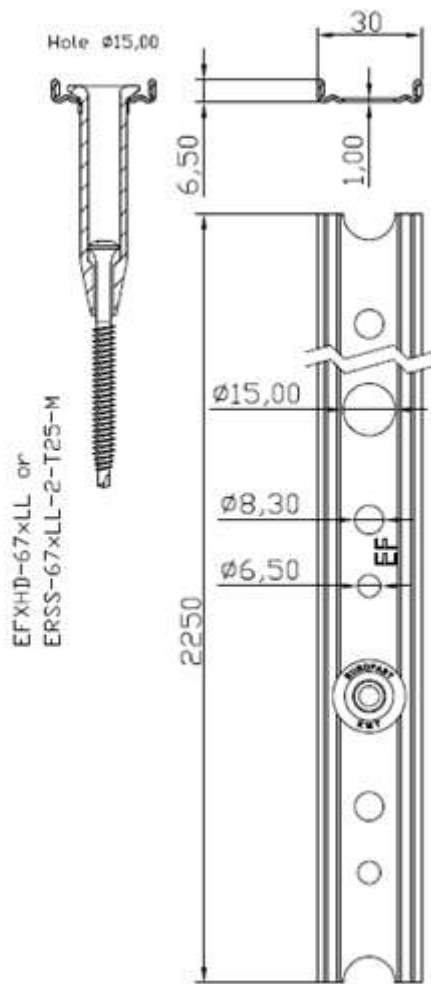
Eurofast Flat Roof Fasteners	Annex E.3 of European Technical Assessment ETA-23/0651
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	



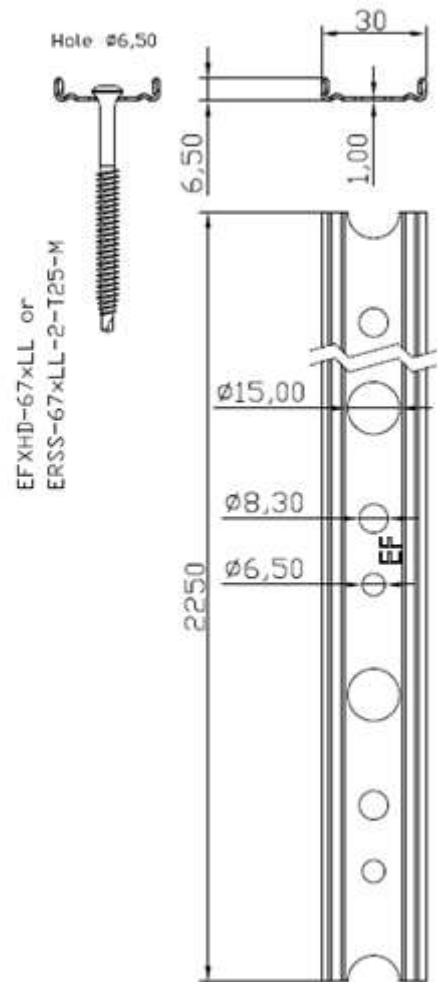
Eurofast Flat Roof Fasteners	
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	

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EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA



EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0

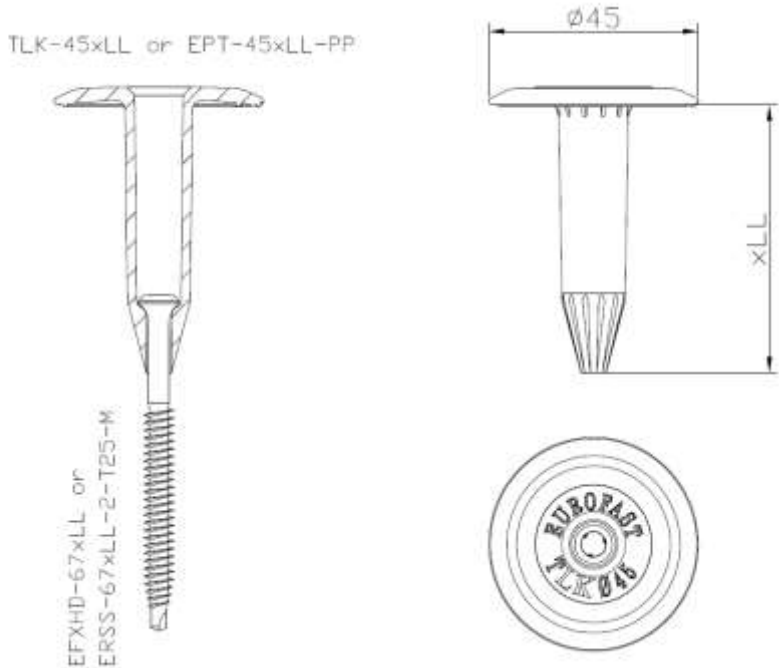
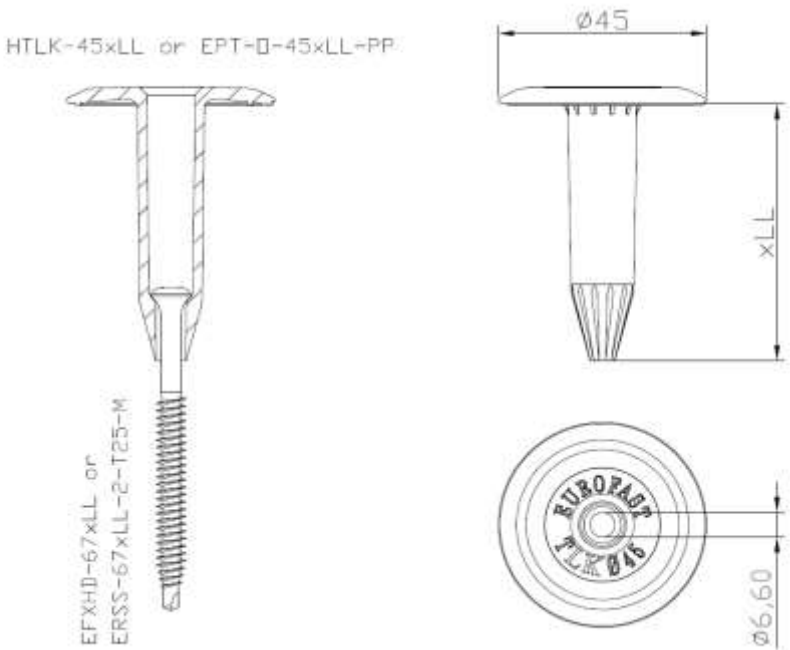


Eurofast Flat Roof Fasteners

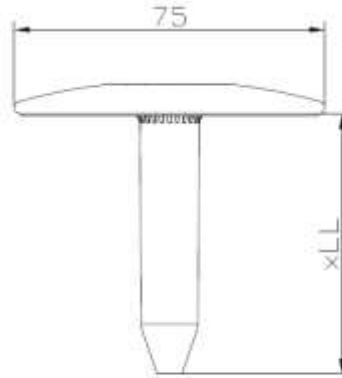
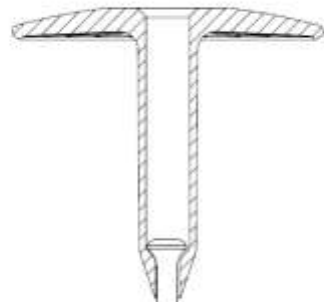
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

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<p>TLK-45xLL or EPT-45xLL-PP</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>HTLK-45xLL or EPT-Ø-45xLL-PP</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.6 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

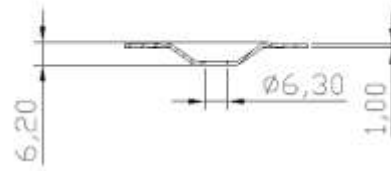
TLK-75xLL or EPT-75xLL-PP



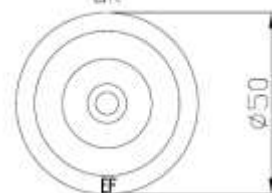
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



DVP-EF-5010D or EPM-50D-6.3-1.0



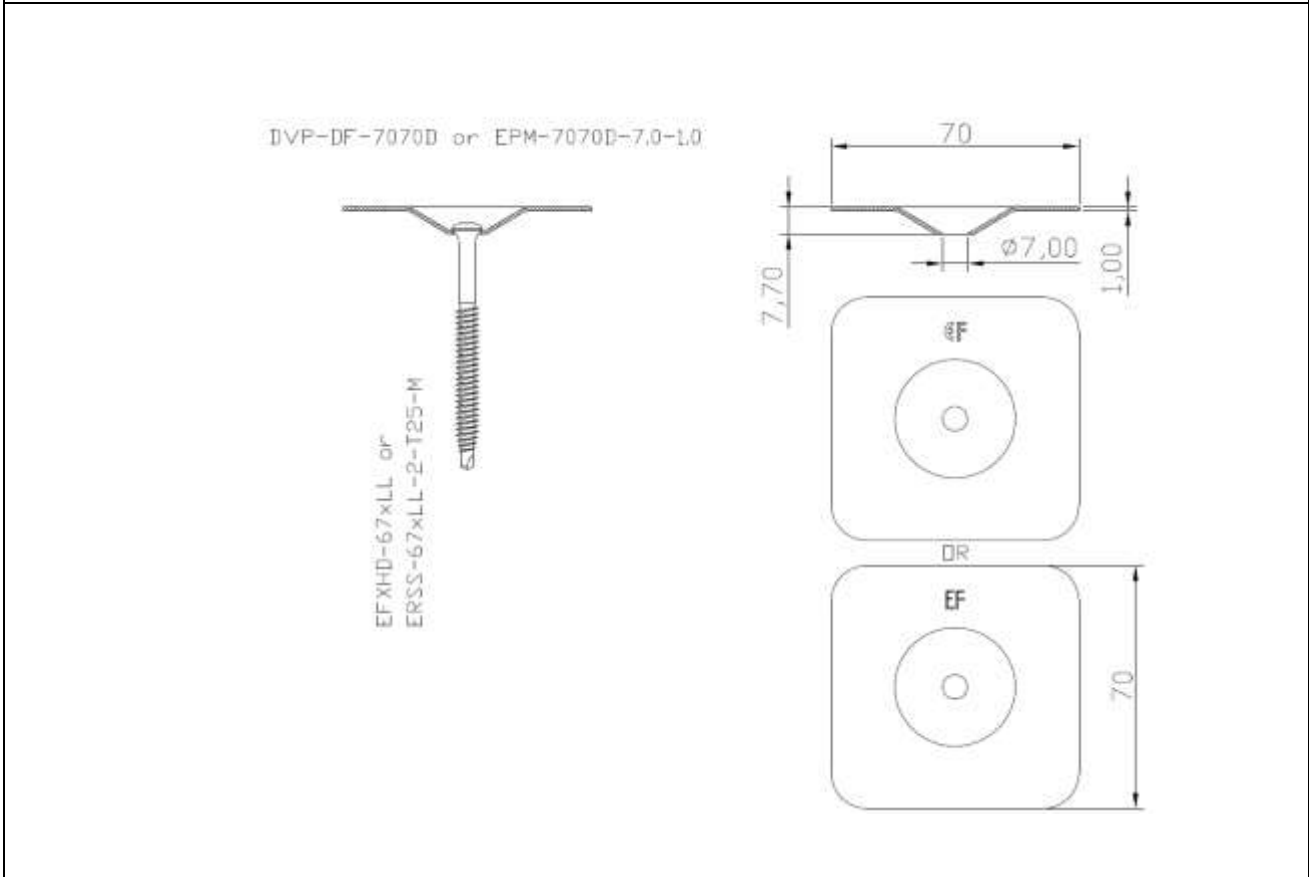
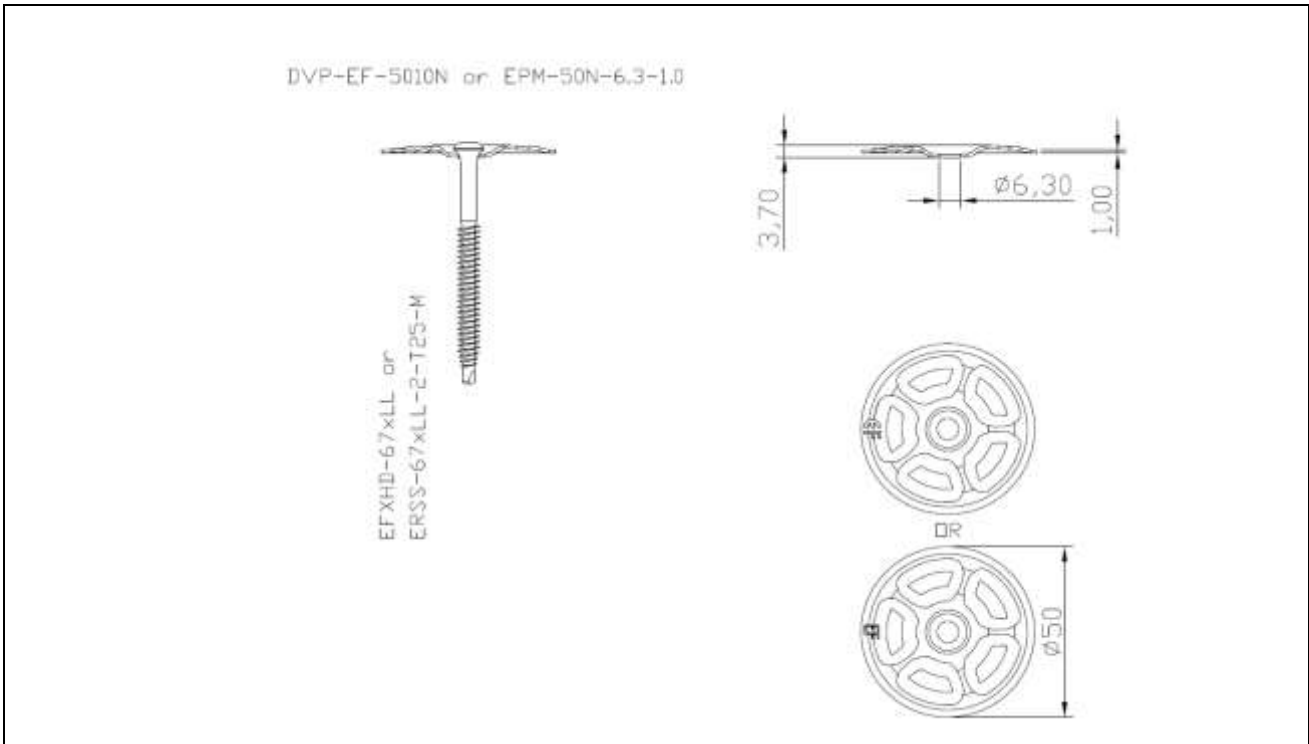
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



Eurofast Flat Roof Fasteners

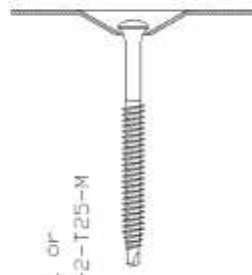
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

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Technical Assessment
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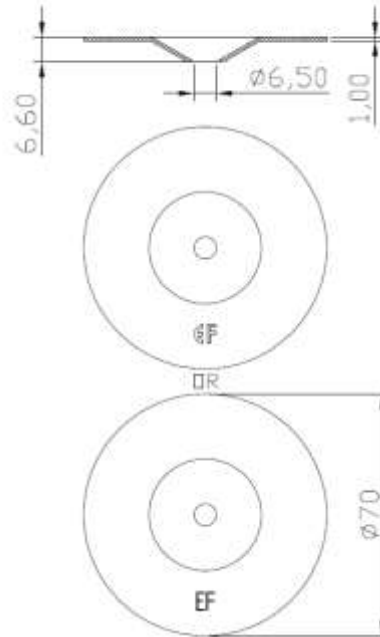


<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.8 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

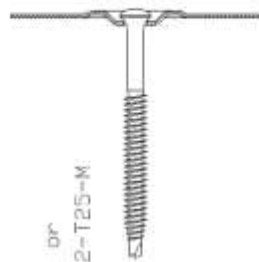
DVP-EF-7010D or EPM-70D-6.5-1.0



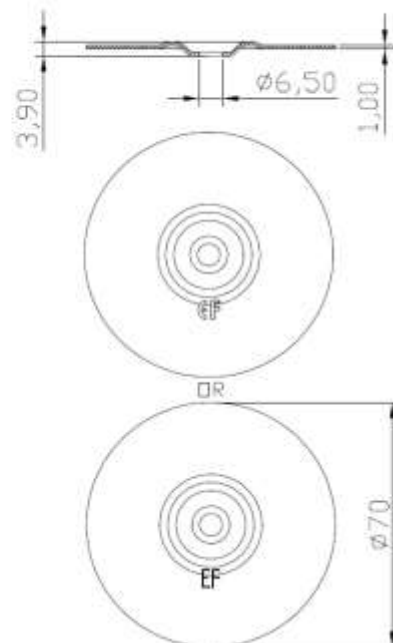
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



DVP-EF-7010N or EPM-70N-6.5-1.0



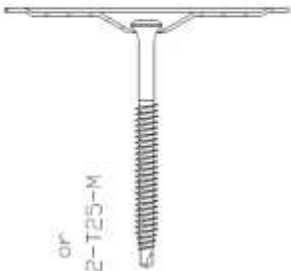
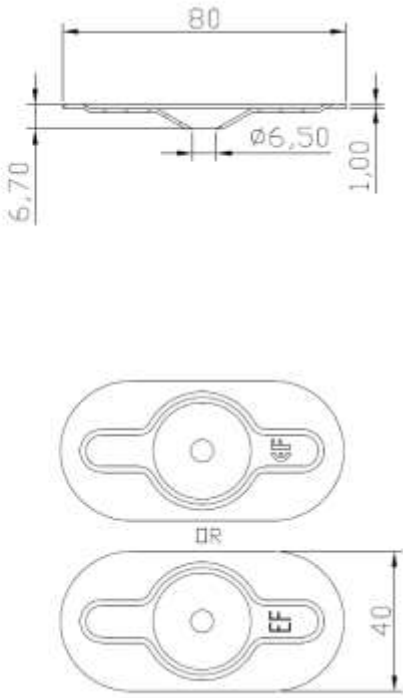
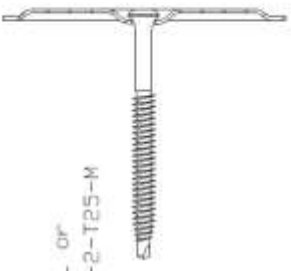
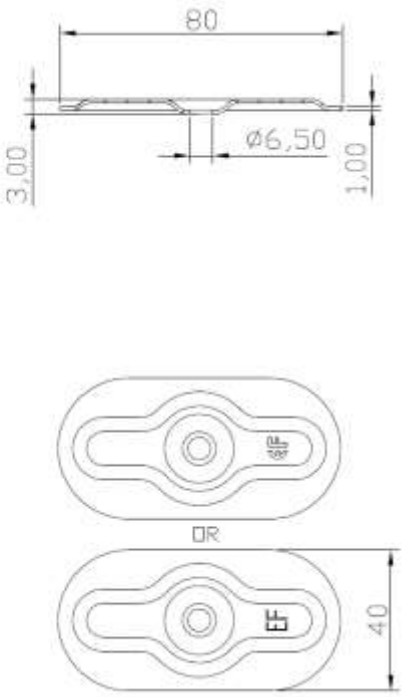
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



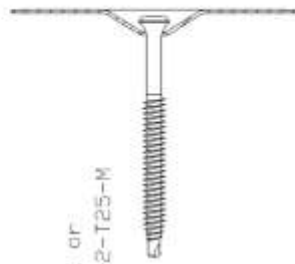
Eurofast Flat Roof Fasteners

EFXHD-67xLL (ERSS-67xLL-2-T25-M)

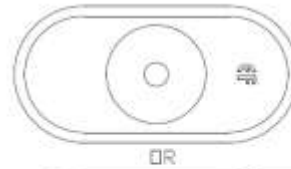
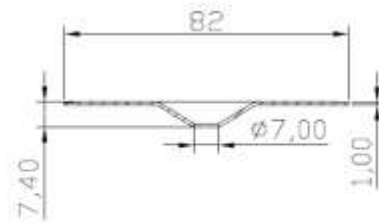
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<p>DVP-EF-8040D or EPM-8040D-6,5-1,0</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>DVP-EF-8040N or EPM-8040N-6,5-1,0</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.10 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

DVP-DF-8240D or EPM-8240D-7.00-1.0



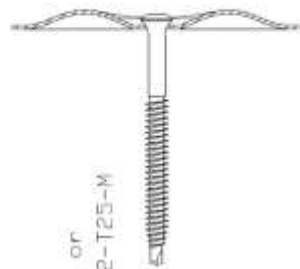
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



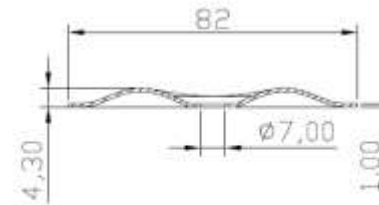
OR



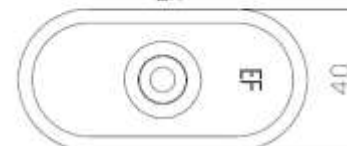
DVP-DF-8240H or EPM-8240H-7.0-1.0



EFXHD-67xLL or
ERSS-67xLL-2-T25-M



OR

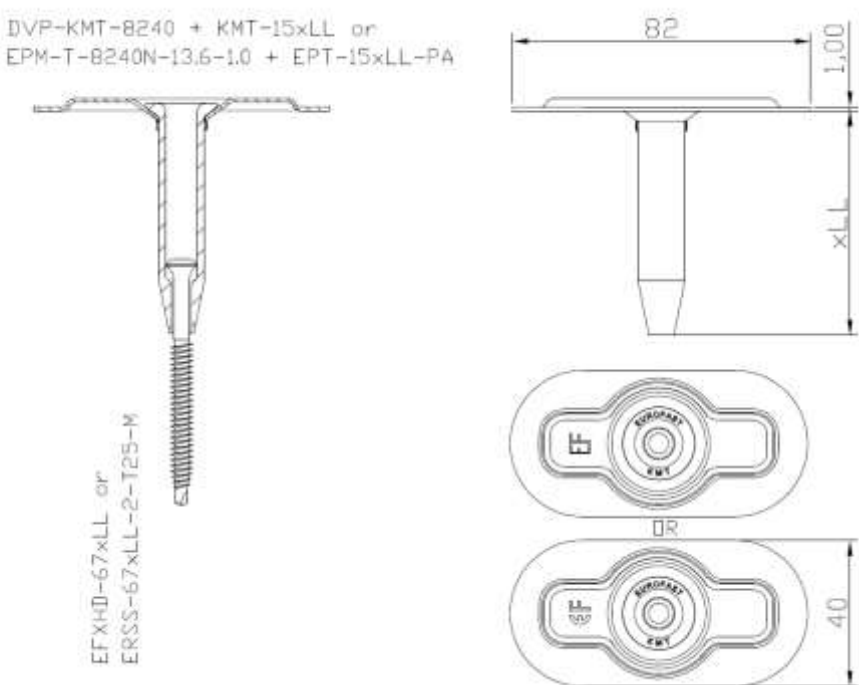
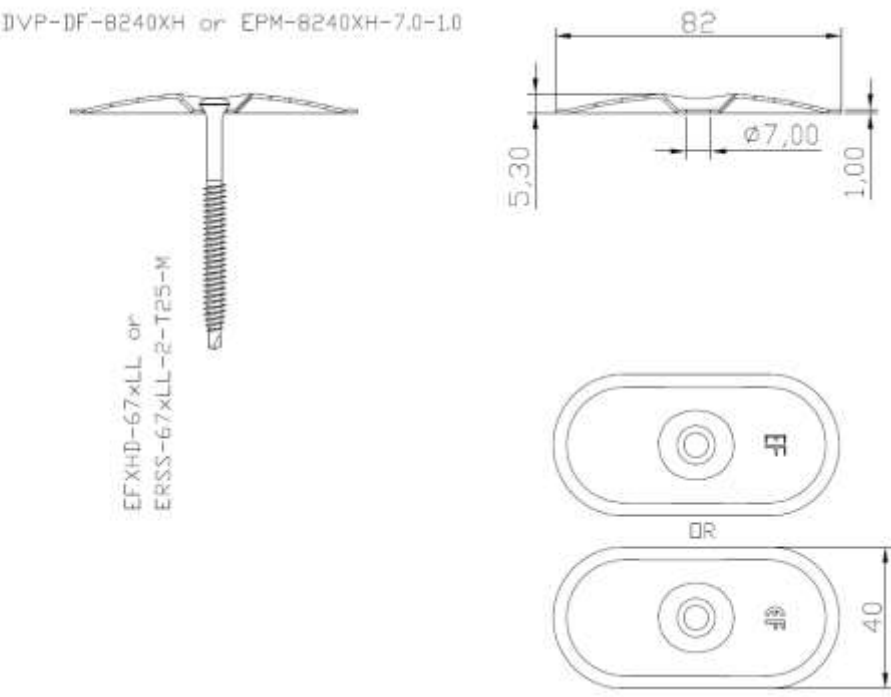


Eurofast Flat Roof Fasteners

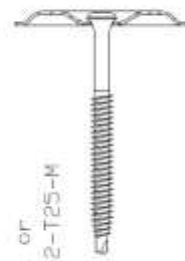
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

Annex E.11

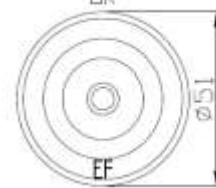
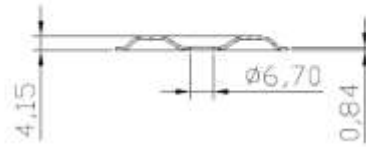
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<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13,6-1.0 + EPT-15xLL-PA</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	<p>Annex E.12 of European Technical Assessment ETA-23/0651</p>
<p>DVP-DF-8240XH or EPM-8240XH-7,0-1,0</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	<p>Annex E.12 of European Technical Assessment ETA-23/0651</p>
<p>Eurofast Flat Roof Fasteners</p> <p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	<p>Annex E.12 of European Technical Assessment ETA-23/0651</p>

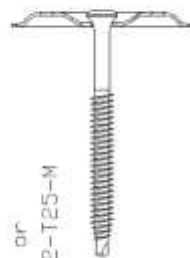
DVP-EF-51N or EPM-51N-6.7-0.84



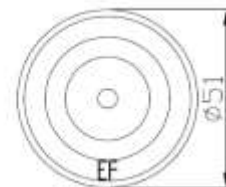
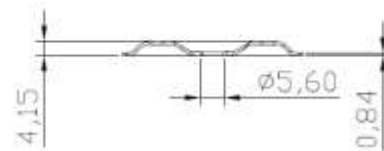
EFXHD-67xLL or
ERSS-67xLL-2-T25-M



EPM-51N-5.6-0.84



EFXHD-67xLL or
ERSS-67xLL-2-T25-M

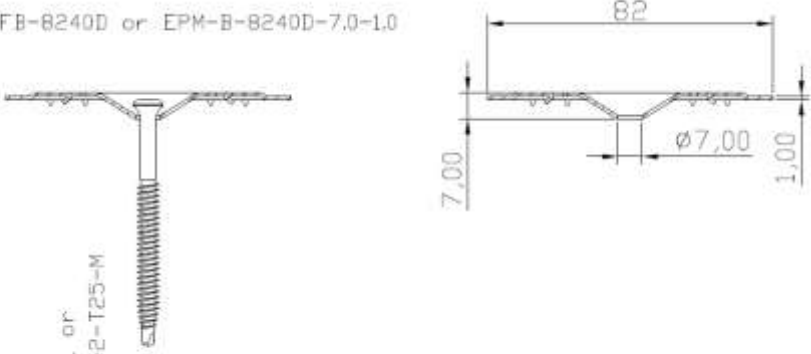
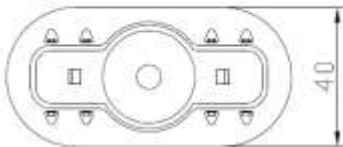

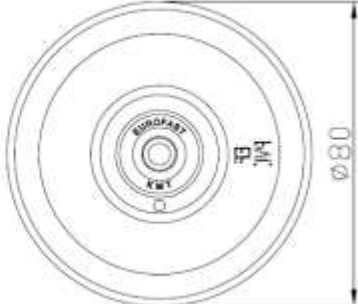


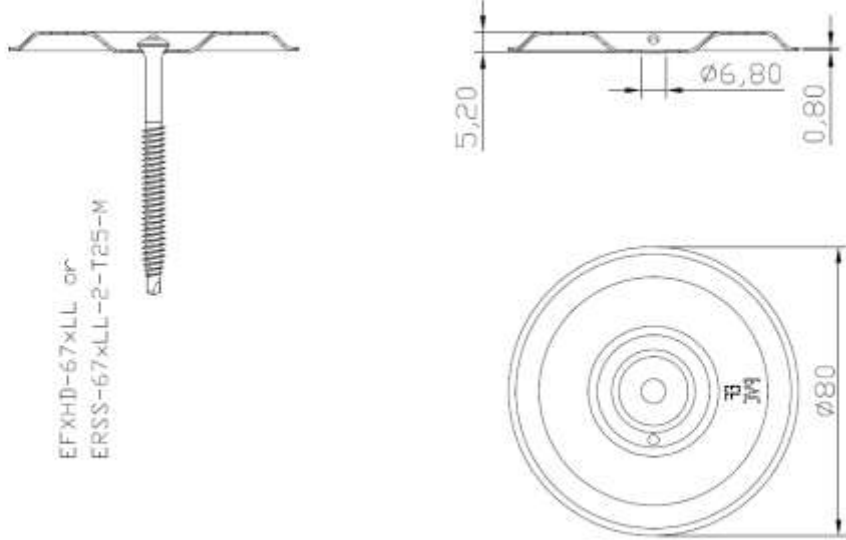
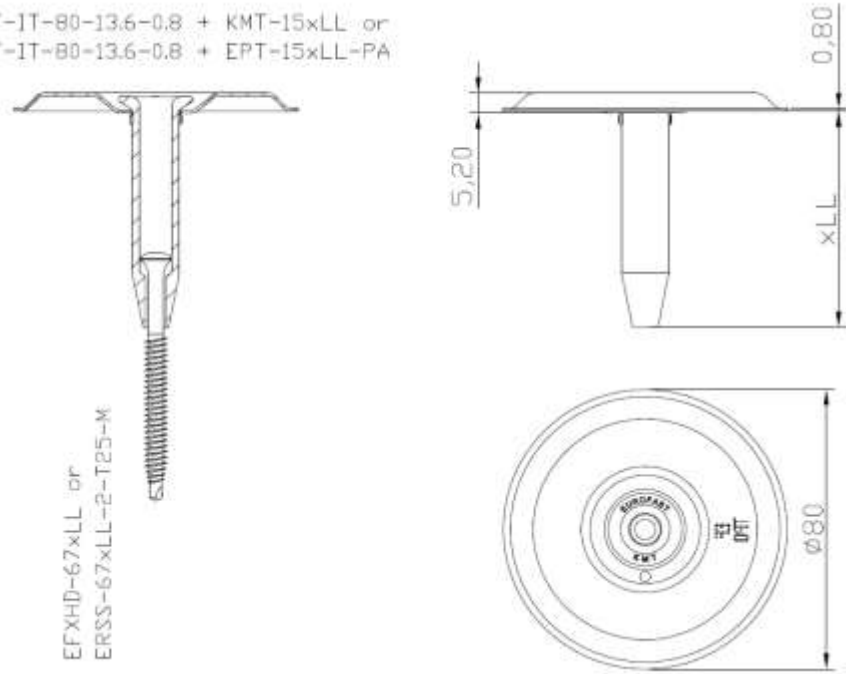
Eurofast Flat Roof Fasteners

EFXHD-67xLL (ERSS-67xLL-2-T25-M)

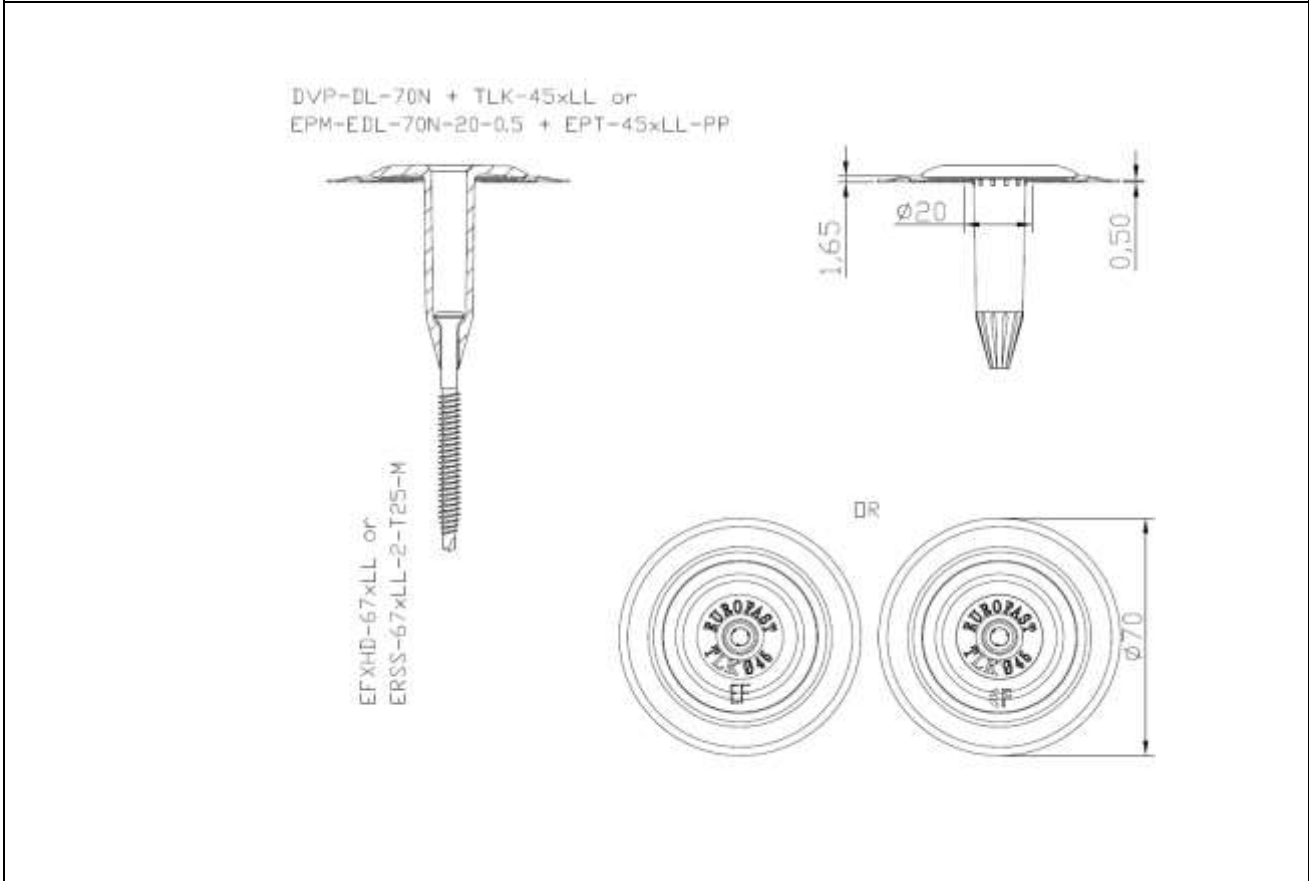
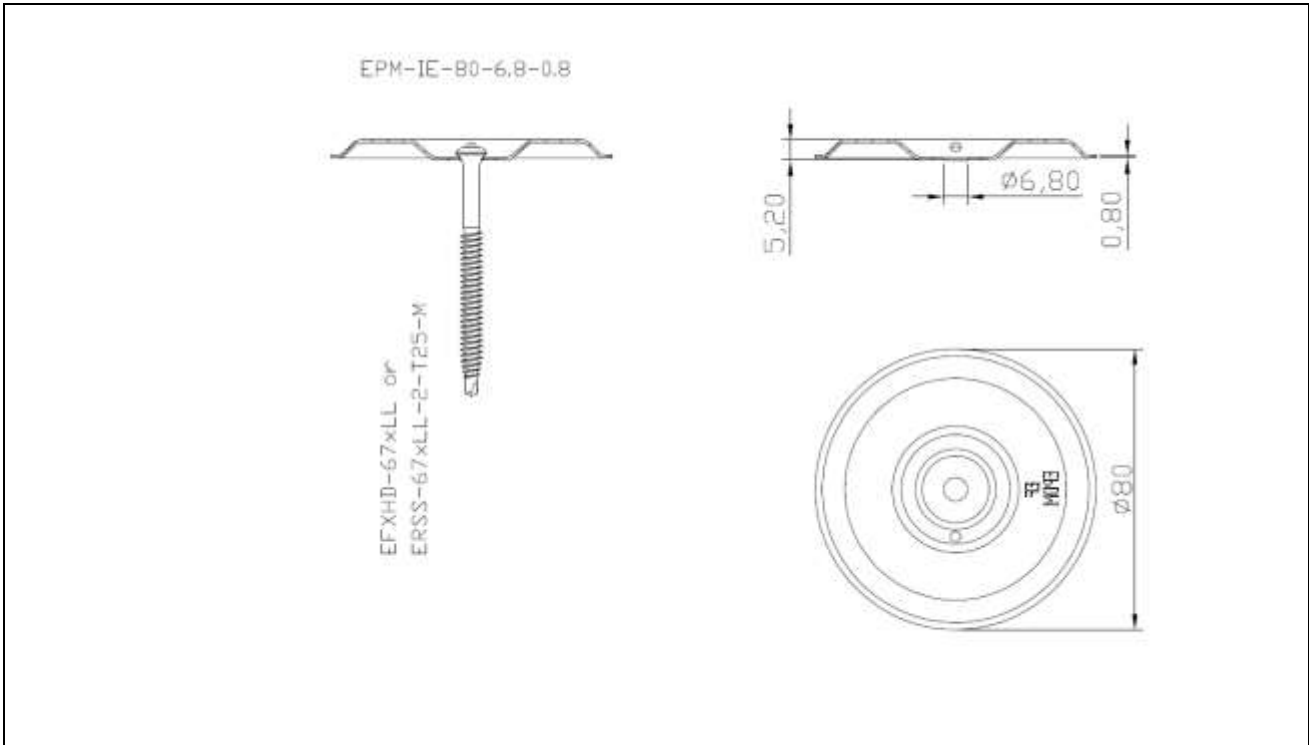
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<p>DVP-DFB-8240D or EPM-B-8240D-7,0-1,0</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p> 	
<p>EPM-T-IP-80-13,6-0,8 + KMT-15xLL or EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p> 	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.14 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

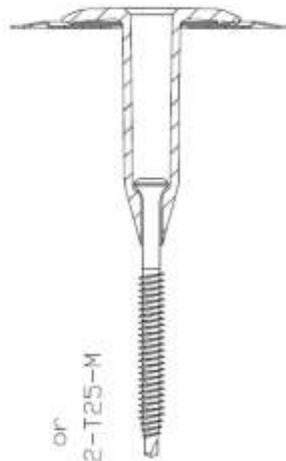
<p>EPM-IP-80-6.8-0.8</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>EPM-T-IT-80-13.6-0.8 + KMT-15xLL or EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA</p>  <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.15 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

<p>EPM-IT-80-6.8-0.8</p> <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>EPM-T-IE-80-13.6-0.8 + KMT-15xLL or EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA</p> <p>EFXHD-67xLL or ERSS-67xLL-2-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex E.16 of European Technical Assessment ETA-23/0651</p>
<p>EFXHD-67xLL (ERSS-67xLL-2-T25-M)</p>	

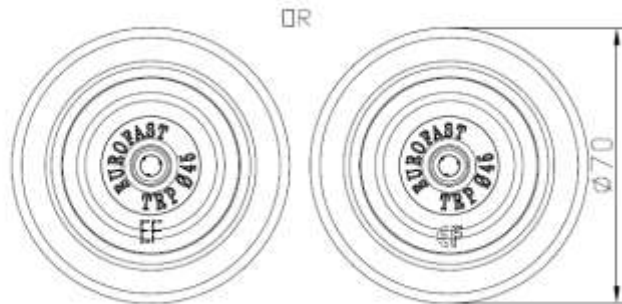


Eurofast Flat Roof Fasteners	Annex E.17 of European Technical Assessment ETA-23/0651
EFXHD-67xLL (ERSS-67xLL-2-T25-M)	

DVP-DL-70N + TRP-45xLL or
 EPM-EDL-70N-20-0,5 + EPT-45xLL-PA



EFXHD-67xLL or
 ERSS-67xLL-2-T25-M

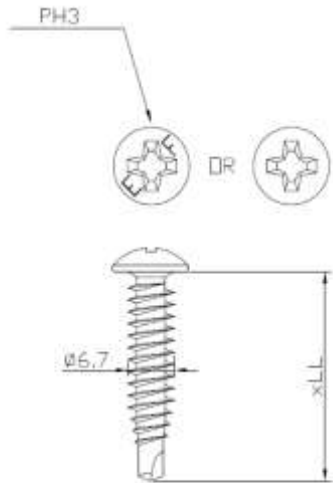


Eurofast Flat Roof Fasteners

EFXHD-67xLL (ERSS-67xLL-2-T25-M)

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DFHD-67xLL or
ERSS-67xLL-2-PH3-15C

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)									
Steel S320GD*									
t [mm]	0,50	0,60	0,63	0,70	0,75	0,80	0,88	1,00	1,25
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)	1,10	1,52	1,52	1,98	2,09	2,59	2,59	2,94	3,48

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)								
OSB/3								
t [mm]	16	18	21	25	Chipboard	Plywood		Timber C24
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)	0,67	0,95	1,12	1,42	0,94	0,94	1,25	1,61

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)				
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	DVP-EF-7010N (EPM-70N-6.5-1.0)	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-51N (EPM-51N-6.7-0.84)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-8040N (EPM-8040N-6.5-1.0)	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	EPM-51N-5.6-0.84
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	-	-	EPM-IP-80-6.8-0.8
	-	-	-	EPM-IT-80-6.8-0.8
	-	-	-	EPM-IE-80-6.8-0.8
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)	5,05	2,89	5,17	2,91

Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

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Screw:

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

Metal pressure plate:

DVP-EF-7010N	(EPM-70N-6.5-1.0)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)
DVP-DF-8240H	(EPM-8240H-7.0-1.0)
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-51N	(EPM-51N-6.7-0.84)
EPM-51N-5.6-0.84	
EPM-IP-80-6.8-0.8	
EPM-IT-80-6.8-0.8	
EPM-IE-80-6.8-0.8	

Termination bar:

EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
OSB/3	$\rho_{\min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{\min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{\min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{\min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

Max. drilling capacity in steel substrate:	2x1,25 mm
Head type:	Truss Head
Recess:	PH3
Fixing in steel substrate:	Min. 20 mm of the screw fixed through the steel sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel substrate	25 kg
- wooden and wood-based substrate	35 kg
Installation tool speed:	1600 - 1800 rpm

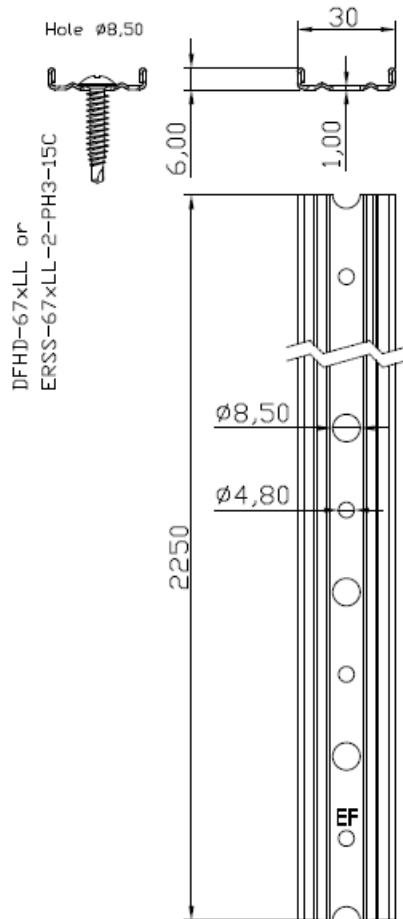
Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

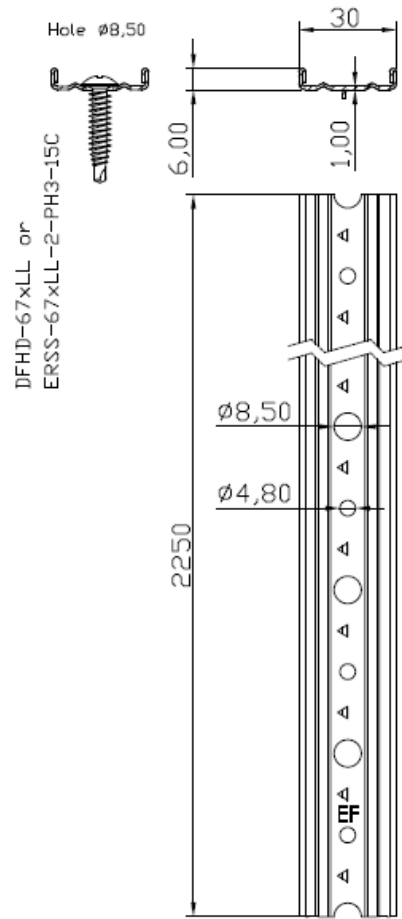
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

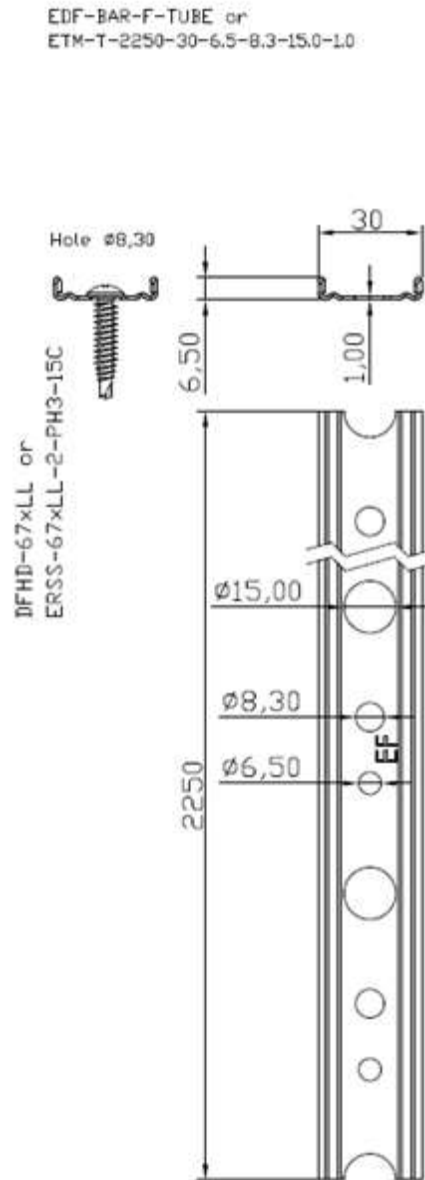


Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

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Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

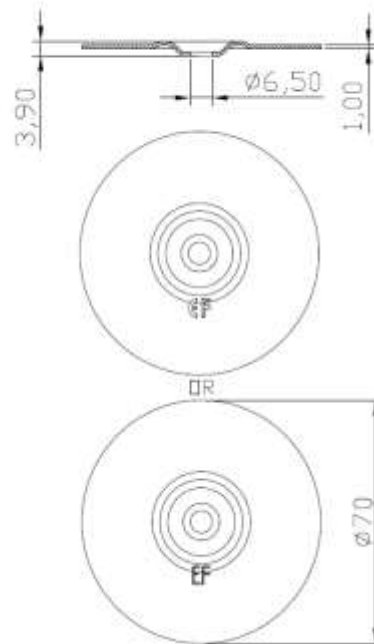
Annex F.4

of European
Technical Assessment
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DVP-EF-7010N or EPM-70N-6.5-1.0



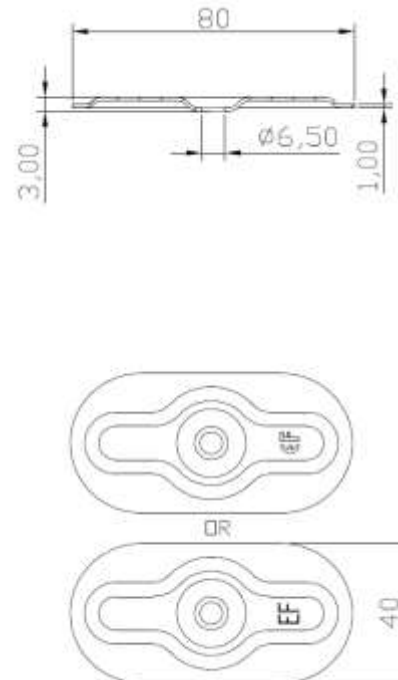
DFHD-67xLL or
ERSS-67xLL-2-PH3-15C



DVP-EF-8040N or EPM-8040N-6.5-1.0



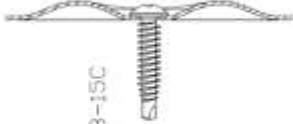
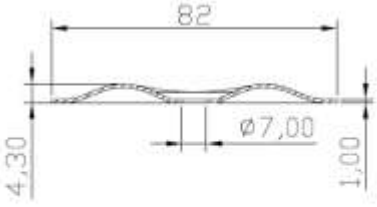
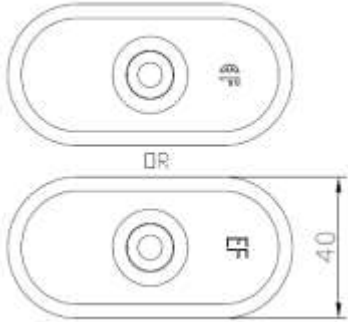
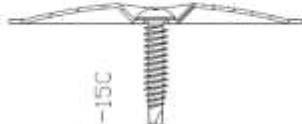
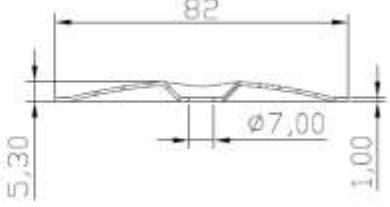
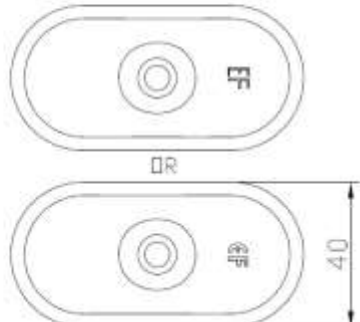
DFHD-67xLL or
ERSS-67xLL-2-PH3-15C



Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

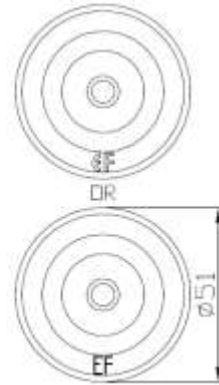
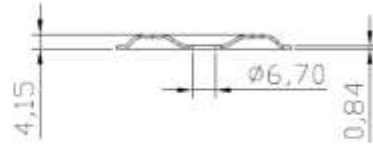
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<p>DVP-DF-8240H or EPM-8240H-7.0-1.0</p>  <p>DFHD-67xLL or ERSS-67xLL-2-PH3-15C</p>	 
<p>DVP-DF-8240XH or EPM-8240XH-7.0-1.0</p>  <p>DFHD-67xLL or ERSS-67xLL-2-PH3-15C</p>	 
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex F.6 of European Technical Assessment ETA-23/0651</p>
<p>DFHD-67xLL (ERSS-67xLL-2-PH3-15C)</p>	

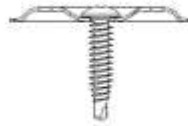
IIVP-EF-51N or EPM-51N-6,7-0.84



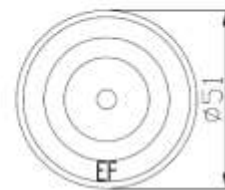
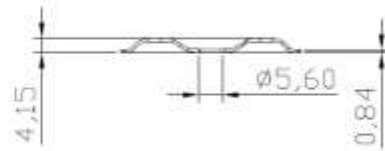
DFHD-67xLL or
ERSS-67xLL-2-PH3-15C



EPM-51N-5,6-0.84



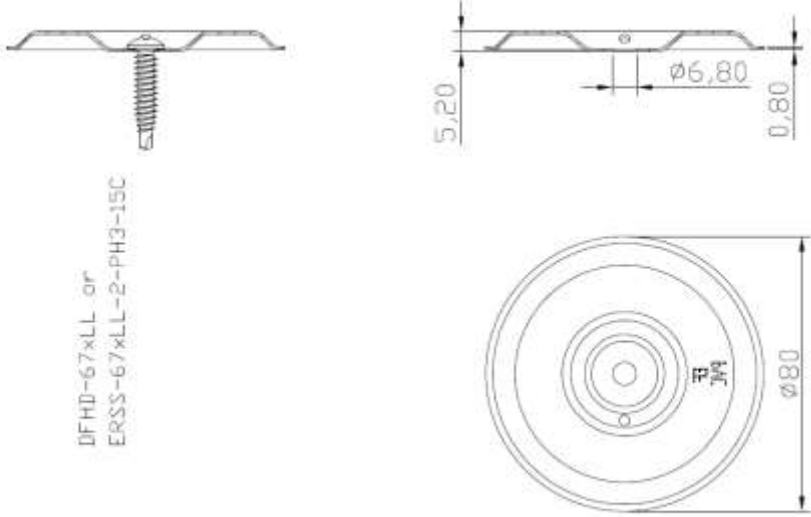
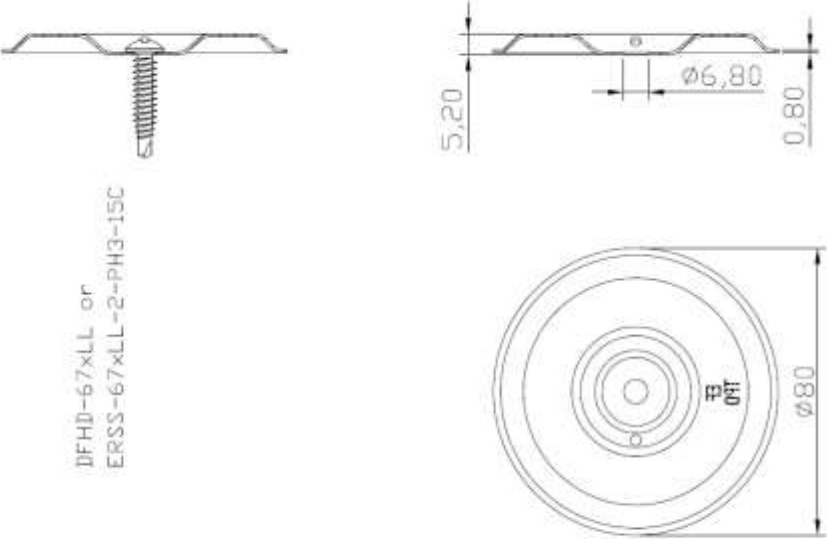
DFHD-67xLL or
ERSS-67xLL-2-PH3-15C

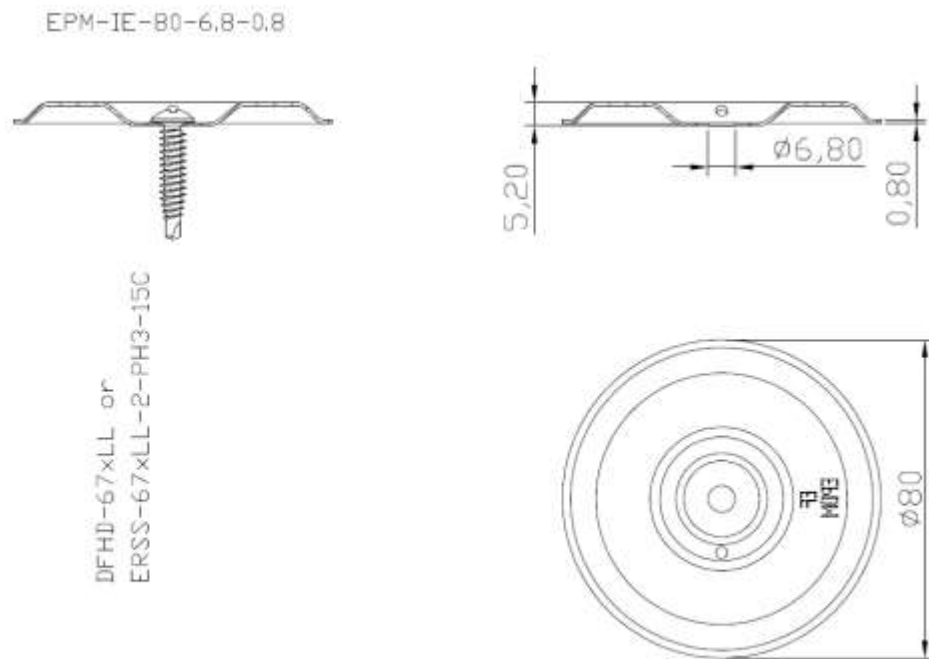


Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

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<p style="text-align: center;">EPM-IP-80-6,8-0,8</p>  <p style="text-align: center;">DFHD-67xLL or ERSS-67xLL-2-PH3-15C</p>	
<p style="text-align: center;">EPM-IT-80-6,8-0,8</p>  <p style="text-align: center;">DFHD-67xLL or ERSS-67xLL-2-PH3-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex F.8 of European Technical Assessment ETA-23/0651</p>
<p>DFHD-67xLL (ERSS-67xLL-2-PH3-15C)</p>	

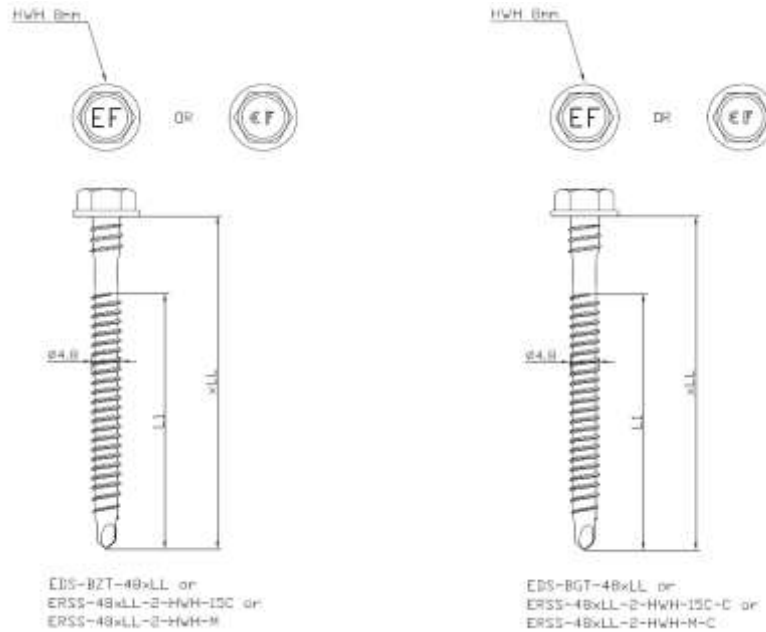


Eurofast Flat Roof Fasteners

DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)						
t [mm]	Steel S320GD*					
	0,70	0,75	0,80	0,88	1,00	1,25
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)	1,24	1,39	1,60	1,60	1,72	2,23
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)	1,24	1,39	1,60	1,60	1,72	2,23

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)	1,12	1,25	1,33	0,95	1,03	1,24	1,70
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)	1,12	1,25	1,33	0,95	1,03	1,24	1,70

Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-
	DVP-EF-5010DFR (EPM-50D-4.85-1.0)	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-
	DVP-EF-7070D (EPM-7070D-4.85-1.0)	-	-
	DVP-EF-7010DFR (EPM-70D-4.85-1.0)	-	-
	DVP-EF-8240D (EPM-8240D-4.85-1.0)	-	-
	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)	-	-
	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)	-	-
	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)	-	-
	DVP-EFF-8040D (EPM-8040D-4.85-1.0)	-	-
	EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)	8,08	5,05
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)	8,08	5,05	6,86

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-DF-8240D (EPM-8240D-7.0-1.0)	-	-
	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-	-
	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-	-
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)	5,25	5,31	5,36
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)	5,25	5,31	5,36

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

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Screw:

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
 EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

Metal pressure plate:

DVP-EF-5010DFR (EPM-50D-4.85-1.0)
 DVP-EF-5010D (EPM-50D-6.3-1.0)
 DVP-EF-7070D (EPM-7070D-4.85-1.0)
 DVP-DF-7070D (EPM-7070D-7.0-1.0)
 DVP-EF-7010DFR (EPM-70D-4.85-1.0)
 DVP-EF-7005D (EPM-70D-5.0-0.5)
 DVP-EF-7007D (EPM-70D-6.0-0.7)
 DVP-EF-7010D (EPM-70D-6.5-1.0)
 DVP-EF-8040D (EPM-8040D-6.5-1.0)
 DVP-EF-8240D (EPM-8240D-4.85-1.0)
 DVP-DF-8240D (EPM-8240D-7.0-1.0)
 DVP-EF-8240XH (EPM-8240XH-4.85-1.0)
 DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
 DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)
 DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
 DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)
 DVP-EFF-8040D (EPM-8040D-4.85-1.0)

Termination bar:

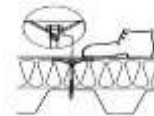
EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
 EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
 EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
OSB/3	$\rho_{\min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{\min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{\min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{\min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

Max. drilling capacity in steel substrate:	2x1,25 mm
Head type:	Hex Washer Head 8 mm
Screws EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C / ERSS-48xLL-2-HWH-M-C):	Collated screws for use with DEK-FIX tool
Fixing in steel substrate:	Min. 20 mm of the screw fixed through the steel sheet
Fixing in wooden or wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel substrate	15 kg
- wooden or wood-based substrate:	30 kg
Installation tool speed:	2000 - 2500 rpm
Additional feature:	Safe thread



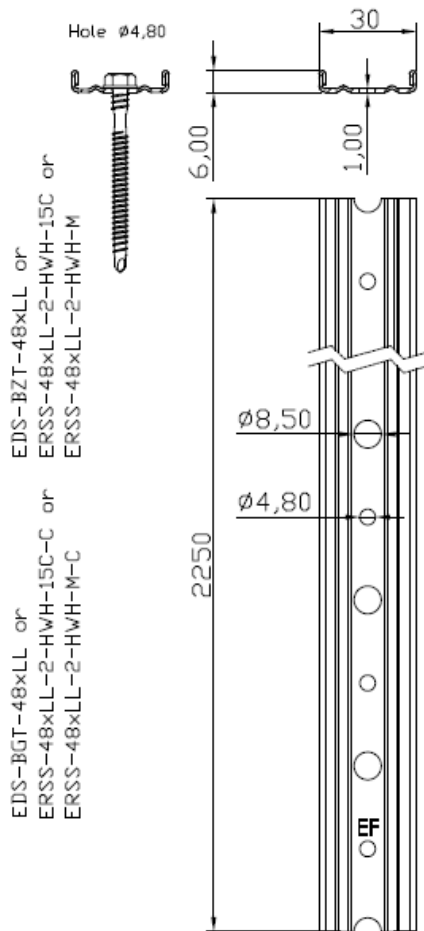
Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
 EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

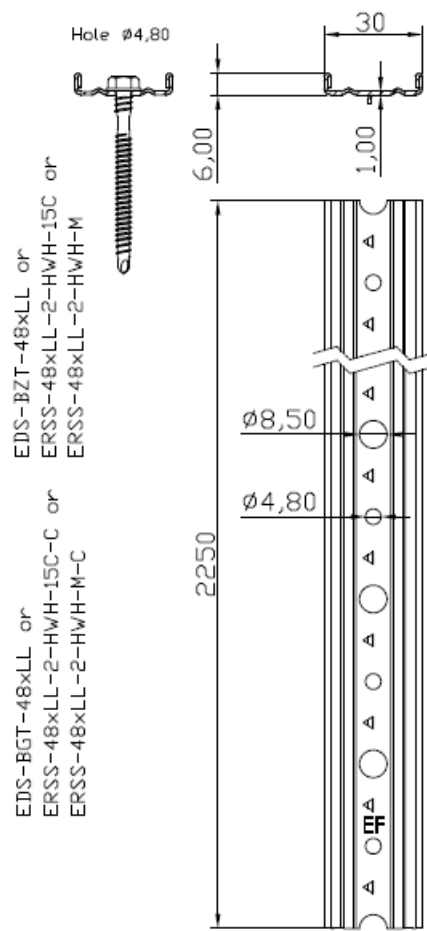
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

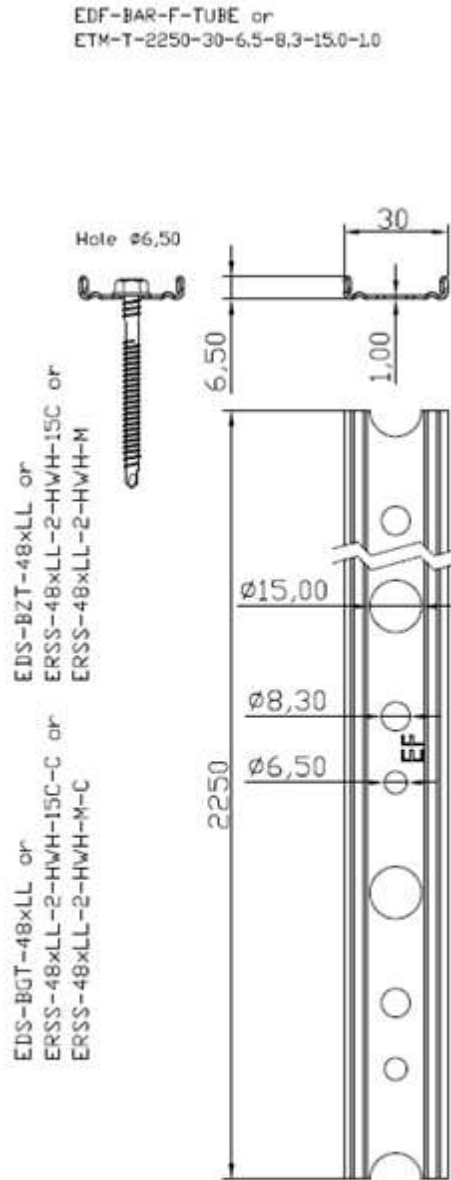


Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

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Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

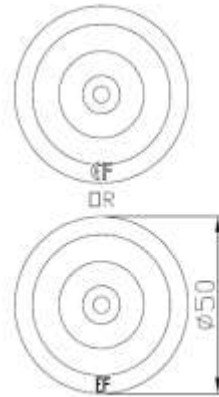
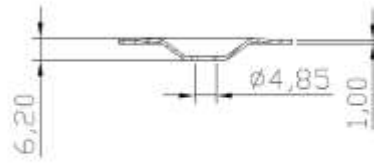
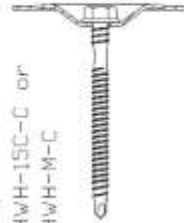
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DVP-EF-5010DFR or EPM-50D-4.85-1.0

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M

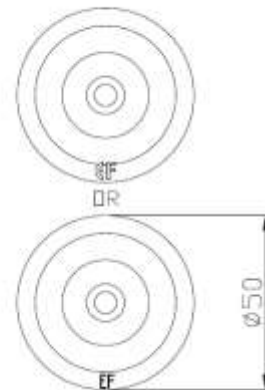
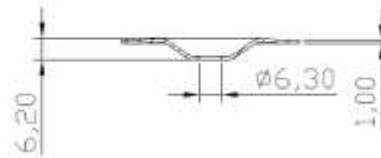
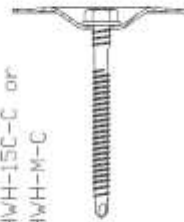
EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C



DVP-EF-5010D or EPM-50D-6.3-1.0

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M

EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C



Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

Annex G.6

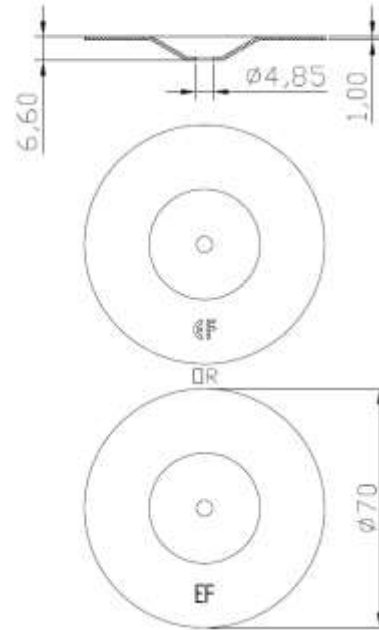
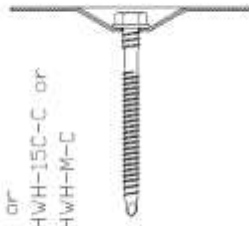
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<p style="text-align: center;">DVP-EF-7070D or EPM-7070D-4.85-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: left;"> <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p> </div> <div style="text-align: center;"> </div> </div> <div style="text-align: right; margin-top: 20px;"> </div>	
<p style="text-align: center;">DVP-DF-7070D or EPM-7070D-7.0-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: left;"> <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p> </div> <div style="text-align: center;"> </div> </div> <div style="text-align: right; margin-top: 20px;"> </div>	
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M) EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)</p>	<p>Annex G.7 of European Technical Assessment ETA-23/0651</p>

DVP-EF-7010DFR or EPM-70D-4.85-1.0

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M

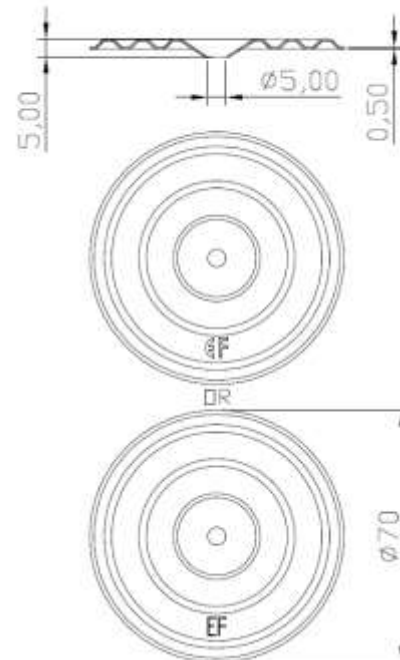
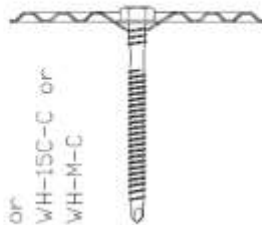
EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C



DVP-EF-7005D or EPM-70D-5.0-0.5

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M

EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C



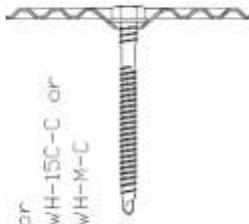
Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

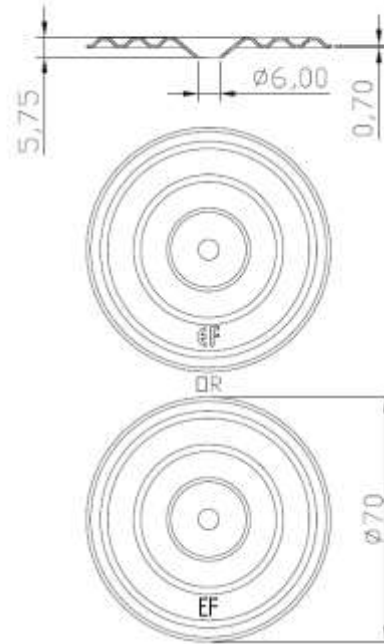
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DVP-EF-7007D or EPM-70D-6.0-0.7

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M

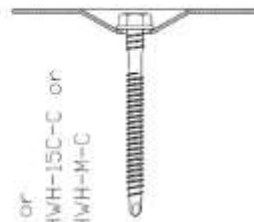


EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C

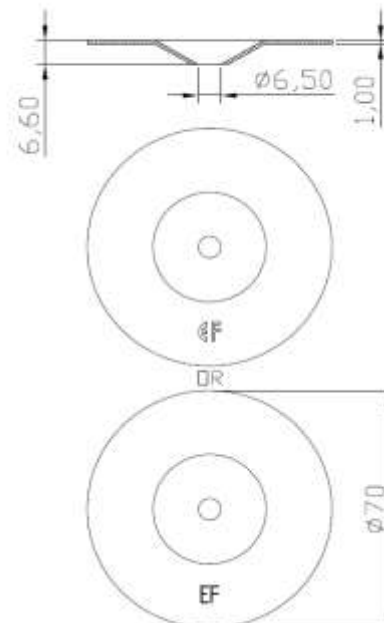


DVP-EF-7010D or EPM-70D-6.5-1.0

EDS-BZT-48xLL or
ERSS-48xLL-2-HWH-15C or
ERSS-48xLL-2-HWH-M



EDS-BGT-48xLL or
ERSS-48xLL-2-HWH-15C-C or
ERSS-48xLL-2-HWH-M-C

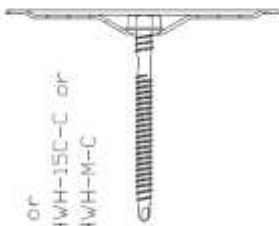
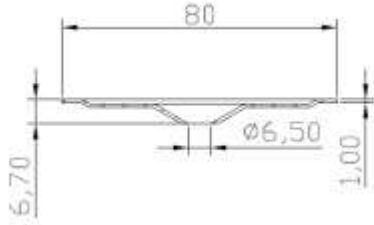
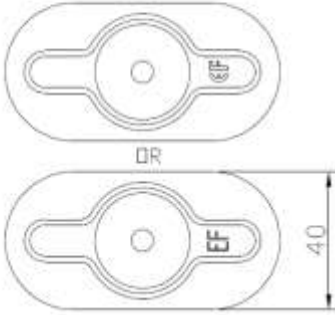
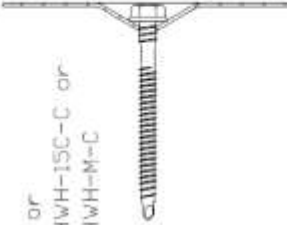
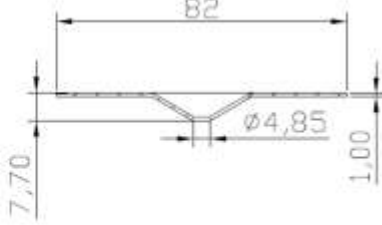
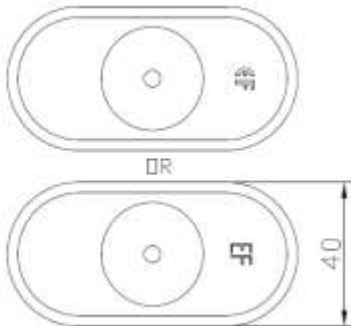


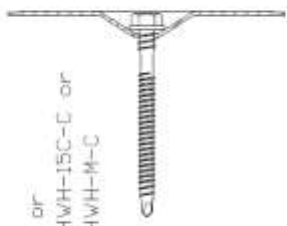
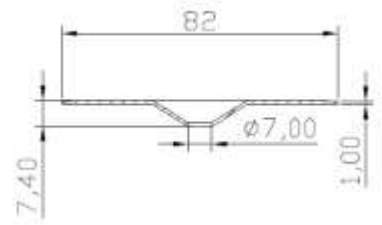
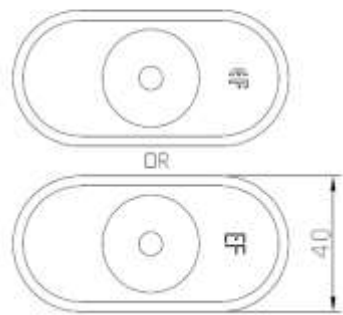
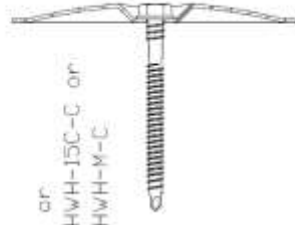
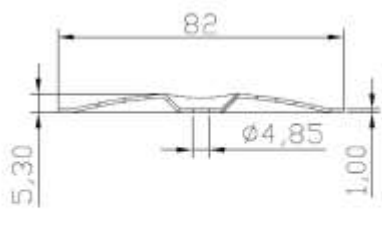

Eurofast Flat Roof Fasteners

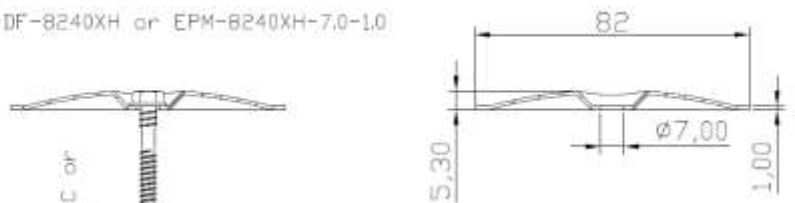
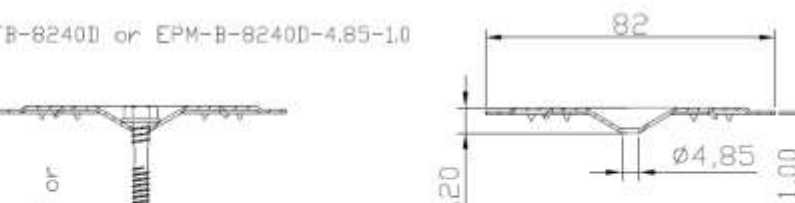
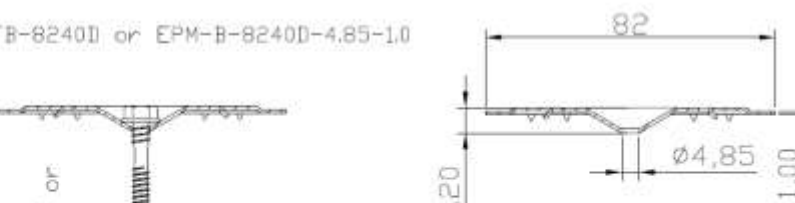
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

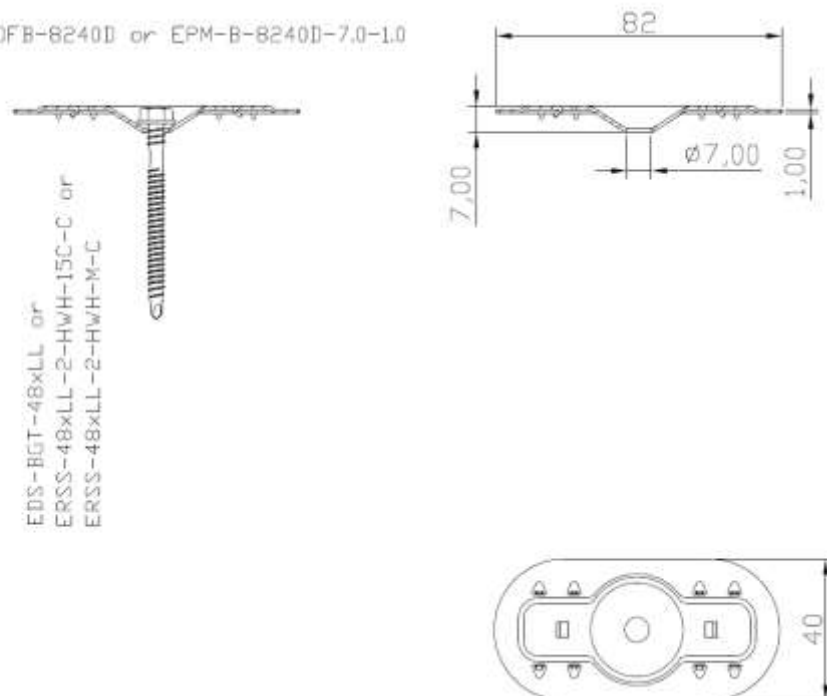
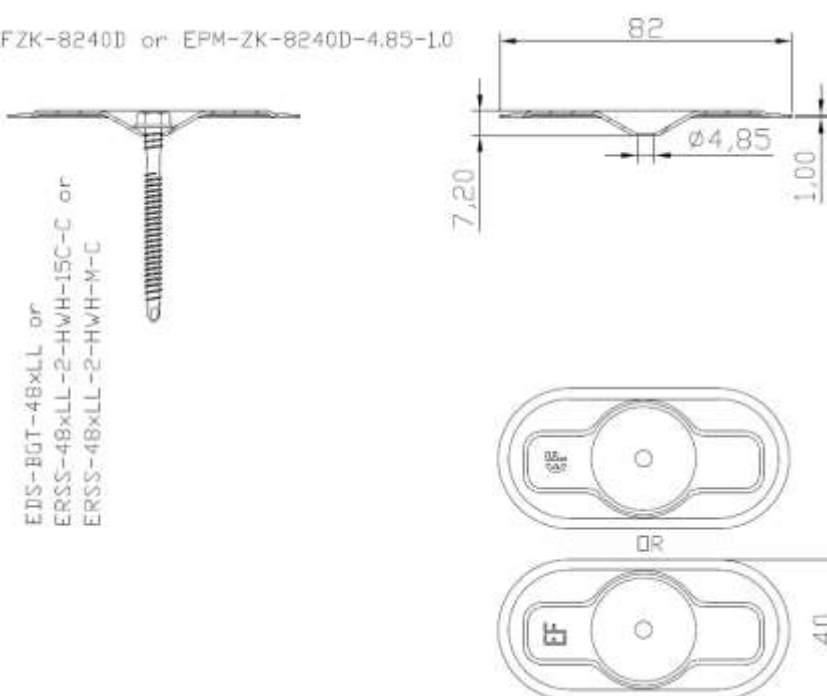
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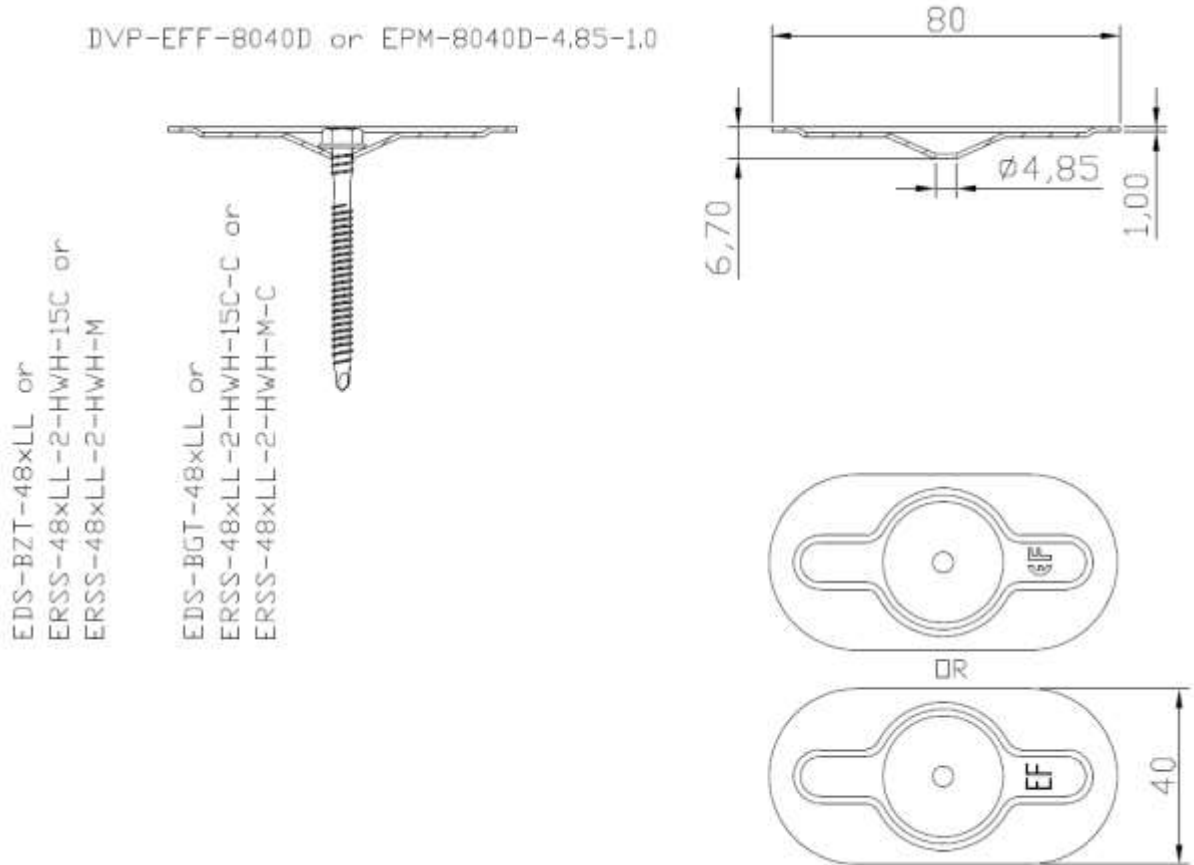
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<p style="text-align: center;">DVP-EF-8240D or EPM-8240D-4,85-1,0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p>  <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p> </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 20px;">  </div>	
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M) EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)</p>	<p>Annex G.10 of European Technical Assessment ETA-23/0651</p>

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<p style="text-align: center;">DVP-DF-8240XH or EPM-8240XH-4.85-1.0</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>	 
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex G.11</p>
<p>EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M) EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)</p>	<p>of European Technical Assessment ETA-23/0651</p>

<p>DVP-DF-8240XH or EPM-8240XH-7.0-1.0</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>	<p>Annex G.12 of European Technical Assessment ETA-23/0651</p>
<p>DVP-EFB-8240D or EPM-B-8240D-4.85-1.0</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>	<p>Annex G.12 of European Technical Assessment ETA-23/0651</p>
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M) EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)</p>	<p>Annex G.12 of European Technical Assessment ETA-23/0651</p>

<p>DVP-DFB-8240D or EPM-B-8240D-7.0-1.0</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>	
<p>DVP-EFZK-8240D or EPM-ZK-8240D-4.85-1.0</p>  <p>EDS-BZT-48xLL or ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M</p> <p>EDS-BGT-48xLL or ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C</p>	
<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>	<p style="text-align: center;">Annex G.13 of European Technical Assessment ETA-23/0651</p>

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

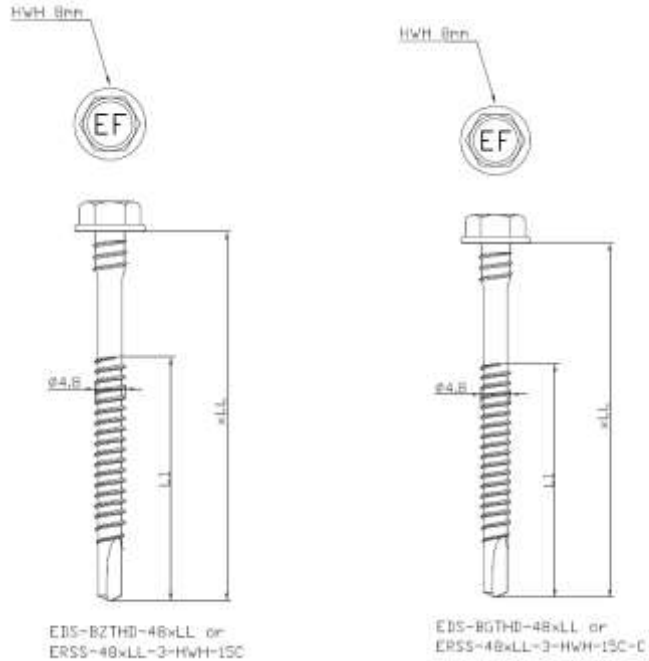


Eurofast Flat Roof Fasteners

EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)			
t [mm]	Steel S320GD*		
		1,00	1,25
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)	1,30	1,86	2,34
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)	1,30	1,86	2,34

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-DF-8240D (EPM-8240D-7.0-1.0)	-	-
	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-	-
	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-	-
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)	5,25	5,31	5,36
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)	5,25	5,31	5,36

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-
	DVP-EF-5010DFR (EPM-50D-4.85-1.0)	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-
	DVP-EF-7070D (EPM-7070D-4.85-1.0)	-	-
	DVP-EF-7010DFR (EPM-70D-4.85-1.0)	-	-
	DVP-EF-8240D (EPM-8240D-4.85-1.0)	-	-
	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)	-	-
	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)	-	-
	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)	-	-
	DVP-EFF-8040D (EPM-8040D-4.85-1.0)	-	-
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)	8,08	5,05	6,86
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)	8,08	5,05	6,86

* "Pull-over" according to CEN/TS 17659:2021

Screw:

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

Metal pressure plate:

DVP-EF-5010DFR (EPM-50D-4.85-1.0)
DVP-EF-5010D (EPM-50D-6.3-1.0)
DVP-EF-7070D (EPM-7070D-4.85-1.0)
DVP-DF-7070D (EPM-7070D-7.0-1.0)
DVP-EF-7010DFR (EPM-70D-4.85-1.0)
DVP-EF-7005D (EPM-70D-5.0-0.5)
DVP-EF-7007D (EPM-70D-6.0-0.7)
DVP-EF-7010D (EPM-70D-6.5-1.0)
DVP-EF-8040D (EPM-8040D-6.5-1.0)
DVP-EF-8240D (EPM-8240D-4.85-1.0)
DVP-DF-8240D (EPM-8240D-7.0-1.0)
DVP-EF-8240XH (EPM-8240XH-4.85-1.0)
DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)
DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)
DVP-EFF-8040D (EPM-8040D-4.85-1.0)

Termination bar:

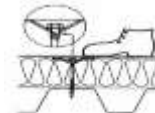
EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Steel S280 EN 10346
Steel S320 EN 10346

Installation data:

Max. drilling capacity in steel substrate: 2x1,50 mm
Head type: Hex Washer Head 8 mm
Screws EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C): Collated screws for use with **DEK-FIX** tool
Fixing in steel substrate: Min. 20 mm of the screw fixed through the steel sheet
Installation force of installation tool: 15 kg
Installation tool speed: 2000 - 2500 rpm
Additional feature: Safe thread



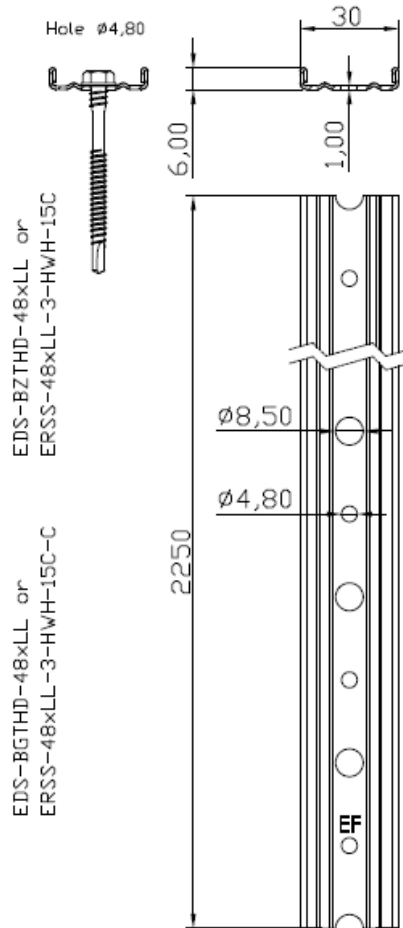
Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

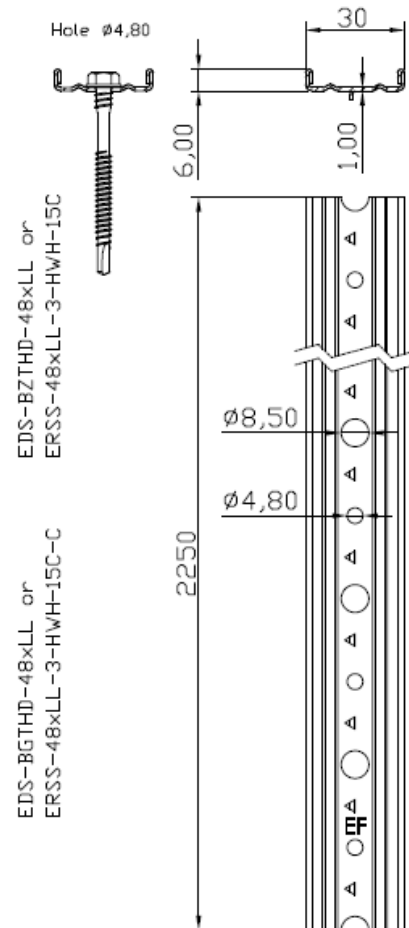
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

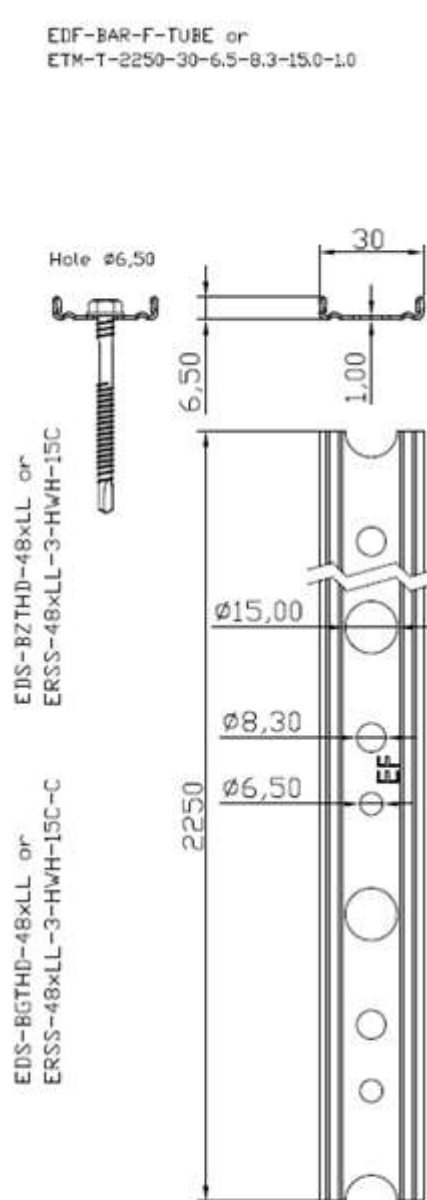


Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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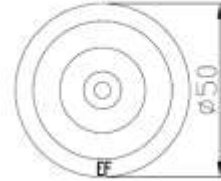
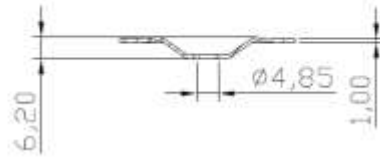
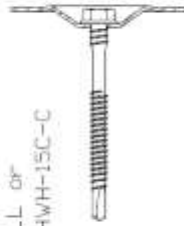
Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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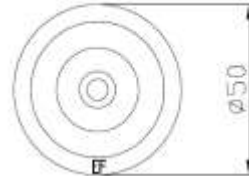
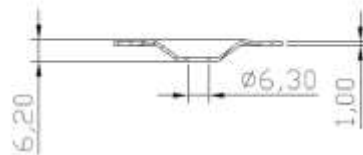
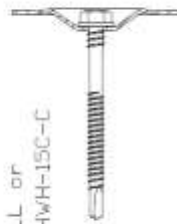
DVP-EF-5010DFR or EPM-50D-4,85-1,0

 EDS-BZTHD-48xLL or
 ERSS-48xLL-3-HWH-15C

 EDS-BGTHD-48xLL or
 ERSS-48xLL-3-HWH-15C-C


DVP-EF-5010D or EPM-50D-6,3-1,0

 EDS-BZTHD-48xLL or
 ERSS-48xLL-3-HWH-15C

 EDS-BGTHD-48xLL or
 ERSS-48xLL-3-HWH-15C-C

Eurofast Flat Roof Fasteners

 EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
 EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

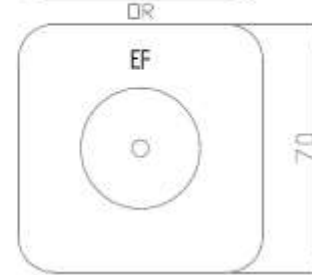
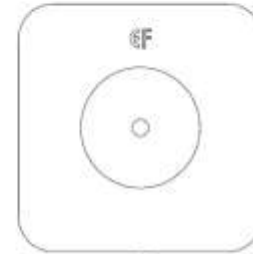
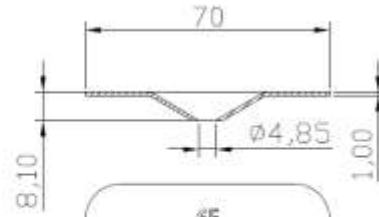
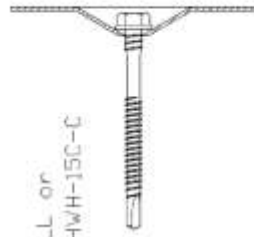
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DVP-EF-7070D or EPM-7070D-4,85-1,0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C

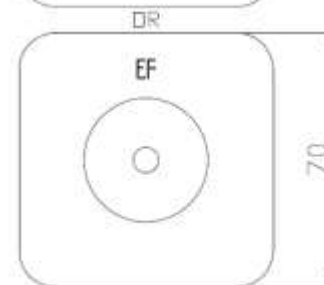
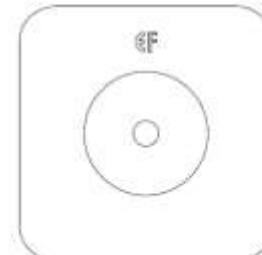
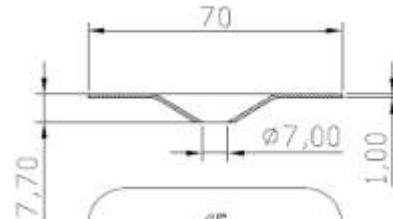
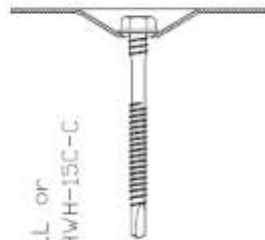
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



DVP-DF-7070D or EPM-7070D-7,0-1,0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C

EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



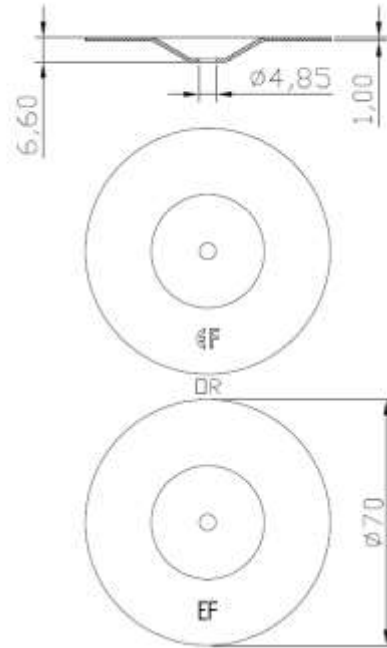
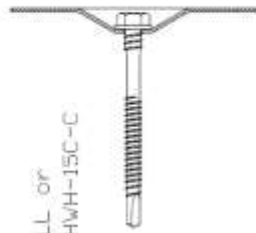
Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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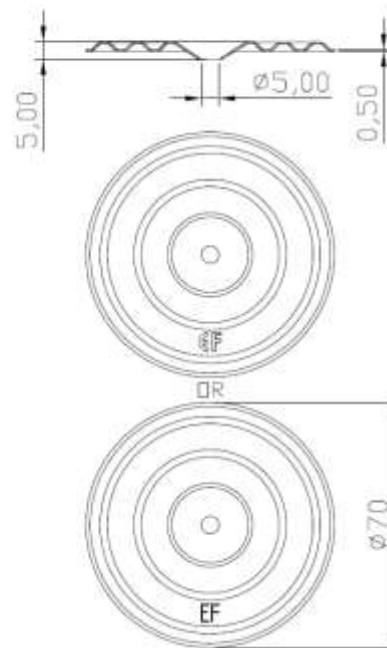
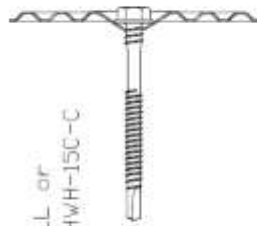
DVP-EF-7010DFR or EPM-70D-4.85-1.0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



DVP-EF-7005D or EPM-70D-5.0-0.5

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

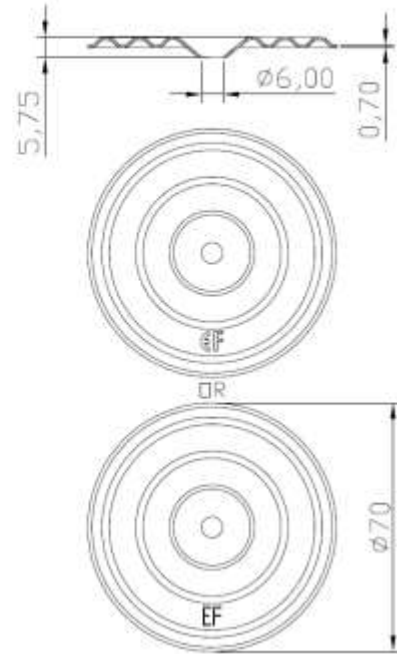
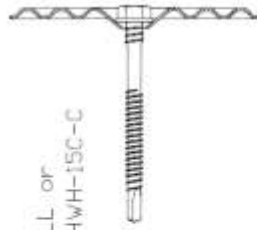
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DVP-EF-7007D or EPM-70D-6,0-0,7

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ERSS-48xLL-3-HWH-15C

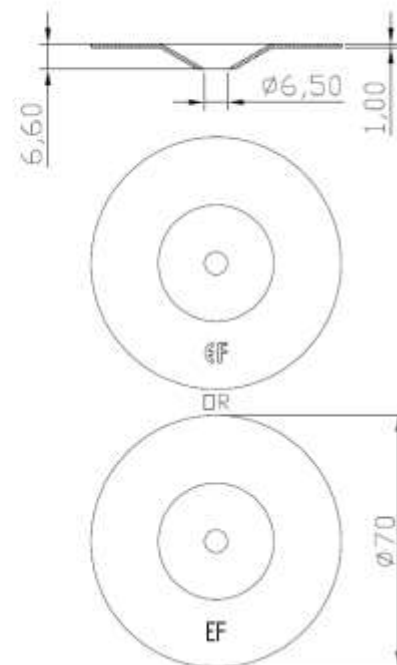
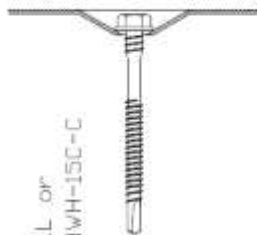
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



DVP-EF-7010D or EPM-70D-6,5-1,0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C

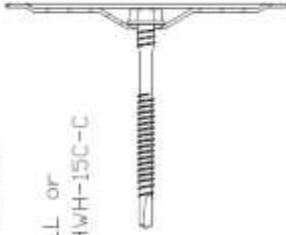
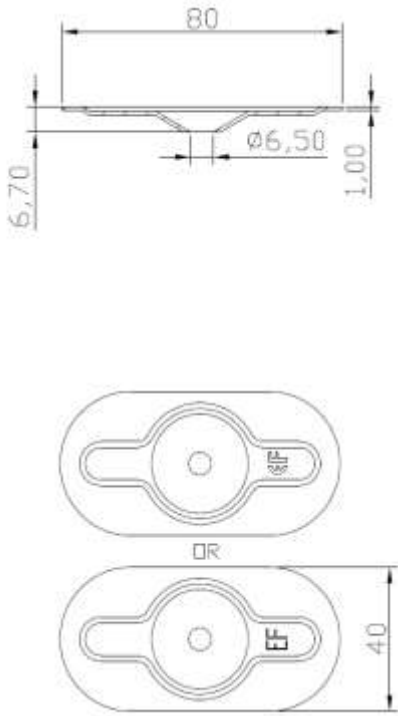


EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



Eurofast Flat Roof Fasteners

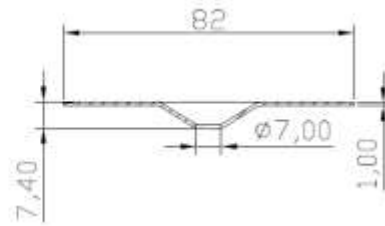
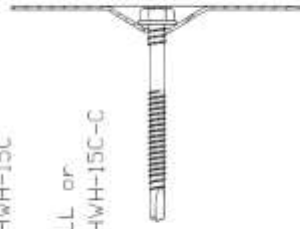
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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<p>DVP-EF-8040D or EPM-8040D-6.5-1.0</p>  <p>EDS-BZTHD-48xLL or ERSS-48xLL-3-HWH-15C</p> <p>EDS-BGTHD-48xLL or ERSS-48xLL-3-HWH-15C-C</p>	
<p>DVP-EF-8240D or EPM-8240D-4.85-1.0</p>  <p>EDS-BZTHD-48xLL or ERSS-48xLL-3-HWH-15C</p> <p>EDS-BGTHD-48xLL or ERSS-48xLL-3-HWH-15C-C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex H.9</p>
<p>EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C) EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)</p>	<p>of European Technical Assessment ETA-23/0651</p>

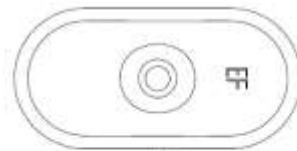
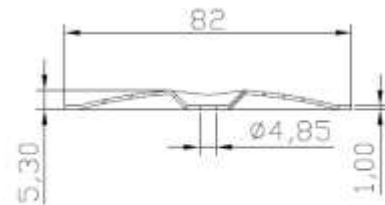
DVP-DF-8240D or EPM-8240D-7.00-1.0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



DVP-DF-8240XH or EPM-8240XH-4.85-1.0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C

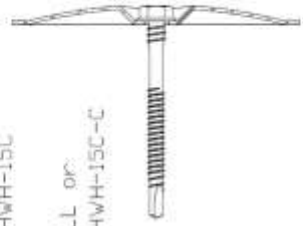
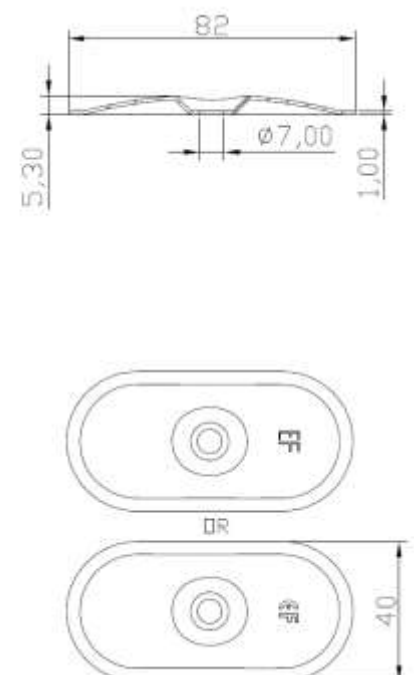
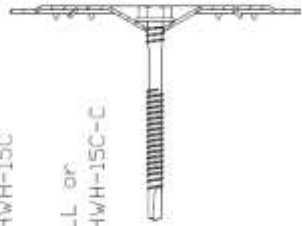
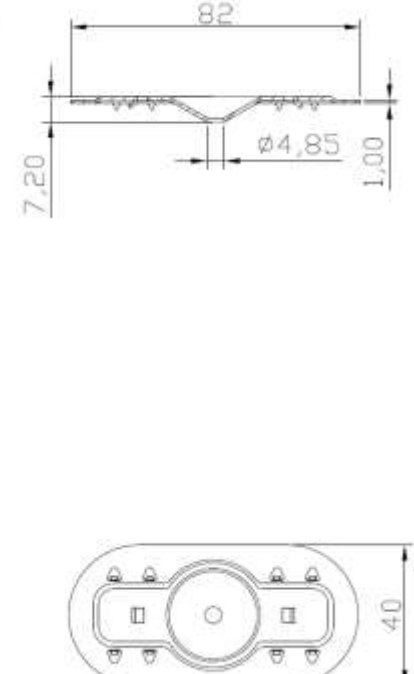


Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

Annex H.10

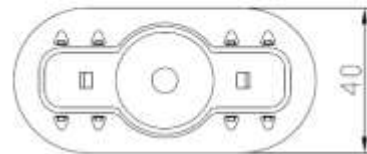
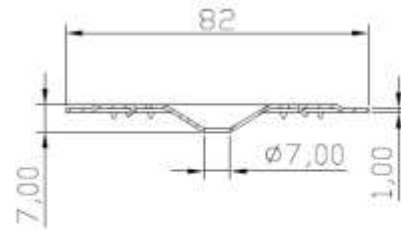
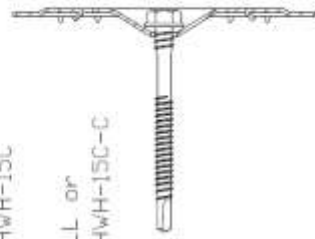
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<p>DVP-DF-8240XH or EPM-8240XH-7.0-1.0</p>  <p>EDS-BZTHD-48xLL or ERSS-48xLL-3-HWH-15C</p> <p>EDS-BGTHD-48xLL or ERSS-48xLL-3-HWH-15C-C</p>	
<p>DVP-EFB-8240D or EPM-B-8240D-4.85-1.0</p>  <p>EDS-BZTHD-48xLL or ERSS-48xLL-3-HWH-15C</p> <p>EDS-BGTHD-48xLL or ERSS-48xLL-3-HWH-15C-C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex H.11 of European Technical Assessment ETA-23/0651</p>
<p>EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C) EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)</p>	

DVP-DFB-8240D or EPM-B-8240D-7.0-1.0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C

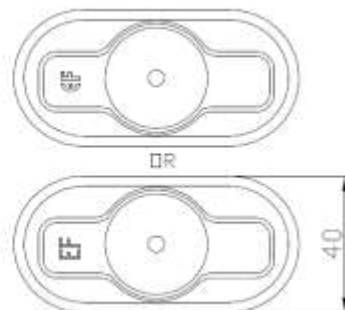
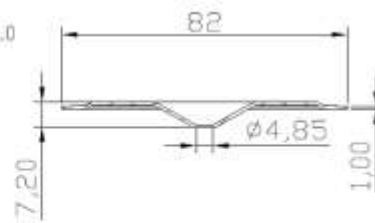
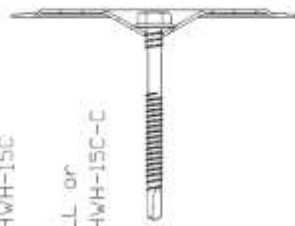
EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C



DVP-EFZK-8240D or EPM-ZK-8240D-4.85-1.0

EDS-BZTHD-48xLL or
ERSS-48xLL-3-HWH-15C

EDS-BGTHD-48xLL or
ERSS-48xLL-3-HWH-15C-C

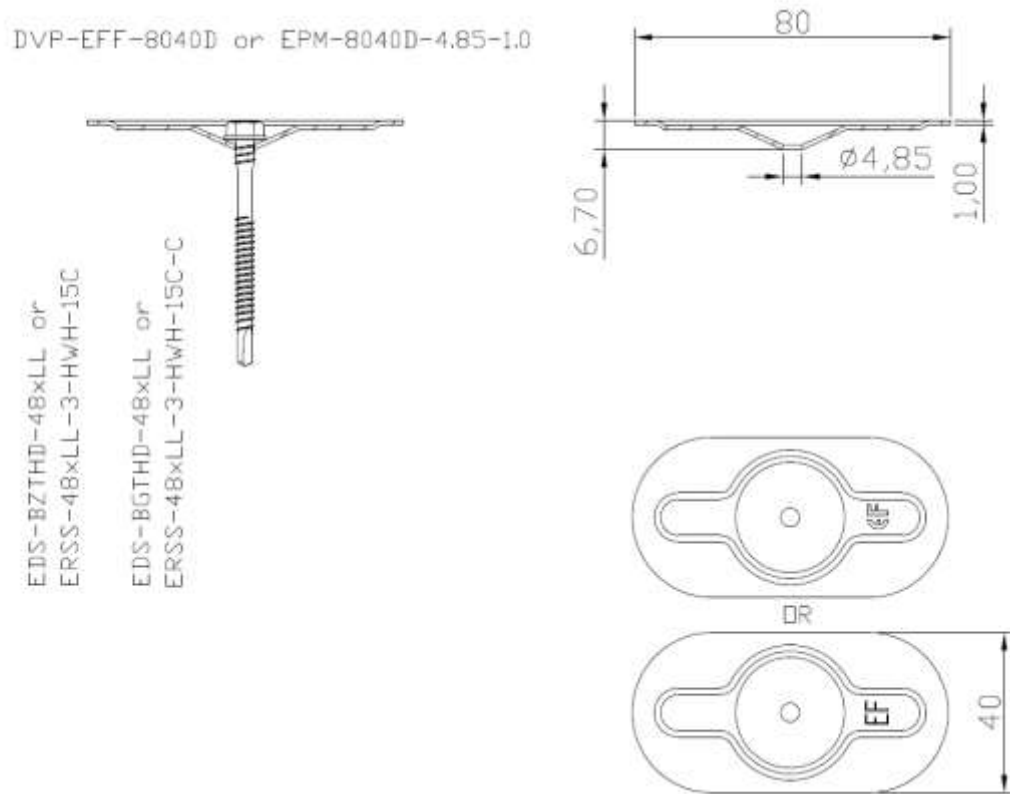


Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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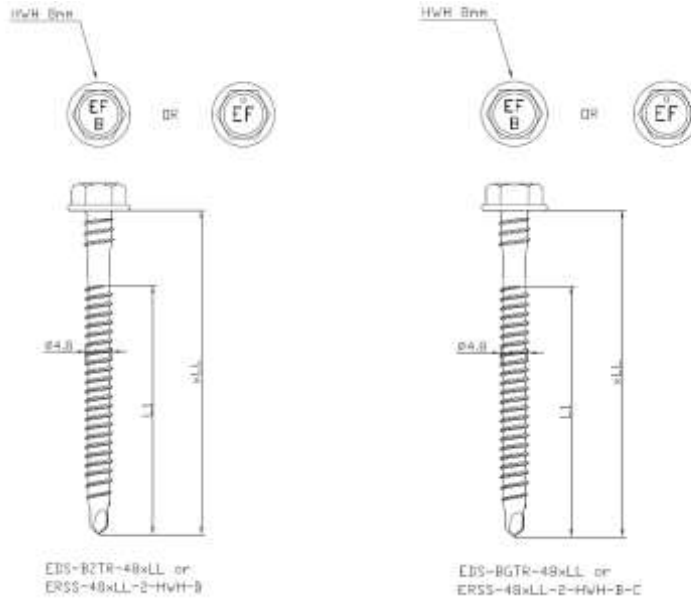


Eurofast Flat Roof Fasteners

EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)									
t [mm]	Steel S320GD*						Aluminium		
	0,70	0,75	0,80	0,88	1,00	1,25	0,80	0,85	1,00
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)	1,15	1,17	1,31	1,31	1,36	2,23	0,71	0,75	1,02
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)	1,15	1,17	1,31	1,31	1,36	2,23	0,71	0,75	1,02

* when using steel S280GD, values must be reduced by 8%

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)	1,12	1,12	1,30	1,16	1,01	1,07	1,75
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)	1,12	1,12	1,30	1,16	1,01	1,07	1,75

Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-
	DVP-EF-5010DFR (EPM-50D-4.85-1.0)	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-
	DVP-EF-7070D (EPM-7070D-4.85-1.0)	-	-
	DVP-EF-7010DFR (EPM-70D-4.85-1.0)	-	-
	DVP-EF-8240D (EPM-8240D-4.85-1.0)	-	-
	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)	-	-
	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)	-	-
	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)	-	-
	DVP-EFF-8040D (EPM-8040D-4.85-1.0)	-	-
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)	8,08	5,05	6,86
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)	8,08	5,05	6,86

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7005D (EPM-70D-5.0-0.5)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-DF-8240D (EPM-8240D-7.0-1.0)	-	-
	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-	-
	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-	-
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)	5,25	5,31	5,36
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)	5,25	5,31	5,36

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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Screw:

EDS-BZTR-48xLL	(ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL	(ERSS-48xLL-2-HWH-B-C)

Metal pressure plate:

DVP-EF-5010DFR	(EPM-50D-4.85-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)
DVP-EF-7070D	(EPM-7070D-4.85-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)
DVP-EF-7010DFR	(EPM-70D-4.85-1.0)
DVP-EF-7005D	(EPM-70D-5.0-0.5)
DVP-EF-7007D	(EPM-70D-6.0-0.7)
DVP-EF-7010D	(EPM-70D-6.5-1.0)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)
DVP-EF-8240D	(EPM-8240D-4.85-1.0)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)
DVP-EF-8240XH	(EPM-8240XH-4.85-1.0)
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EFB-8240D	(EPM-B-8240D-4.85-1.0)
DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-EFZK-8240D	(EPM-ZK-8240D-4.85-1.0)
DVP-EFF-8040D	(EPM-8040D-4.85-1.0)

Termination bar:

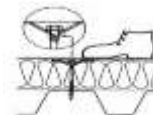
EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Steel S280		EN 10346
Steel S320		EN 10346
Aluminium	$R_m \geq 195 \text{ N/mm}^2$	EN 485
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

Max. drilling capacity in steel substrate:	2x1,25 mm
Head type:	Hex Washer Head 8 mm
Screws EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C):	Collated screws for use with DEK-FIX tool
Fixing in steel substrate:	Min. 30 mm fixed through the steel sheet
Fixing in aluminium substrate:	Min. 30 mm fixed through the aluminium sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in:	
- steel and aluminium substrate	35 kg
- wooden and wood-based substrate	45 kg
Installation tool speed:	1600 -1800 rpm
Additional feature:	Safe thread

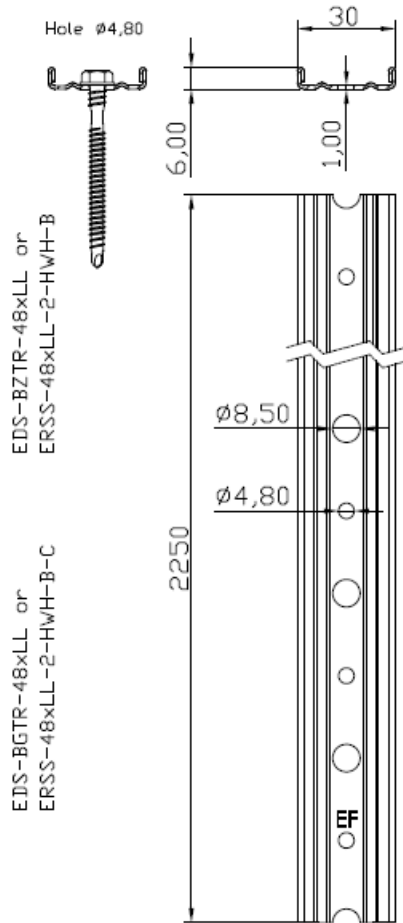
**Eurofast Flat Roof Fasteners**

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

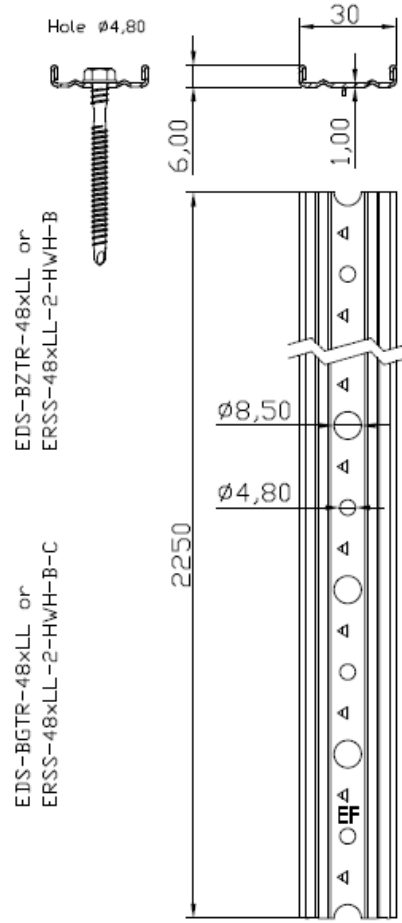
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

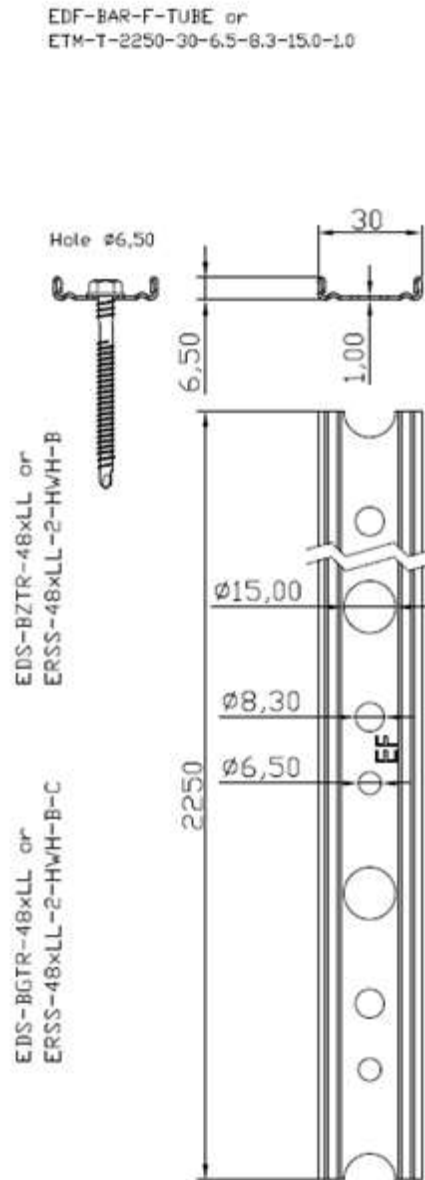


Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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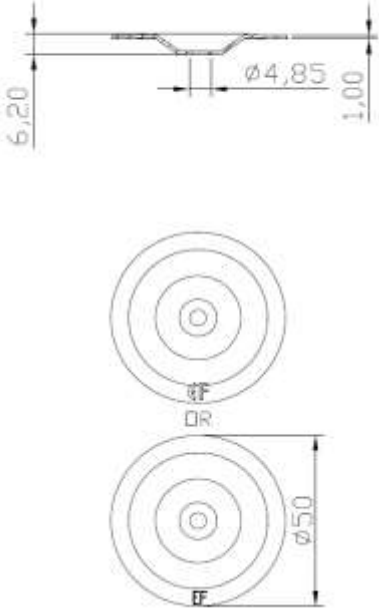
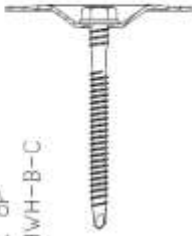
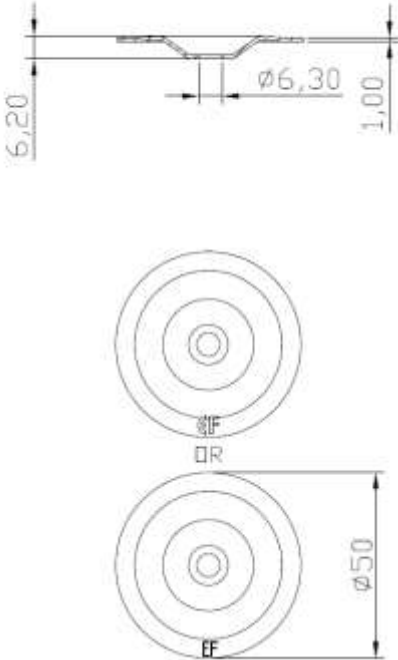


Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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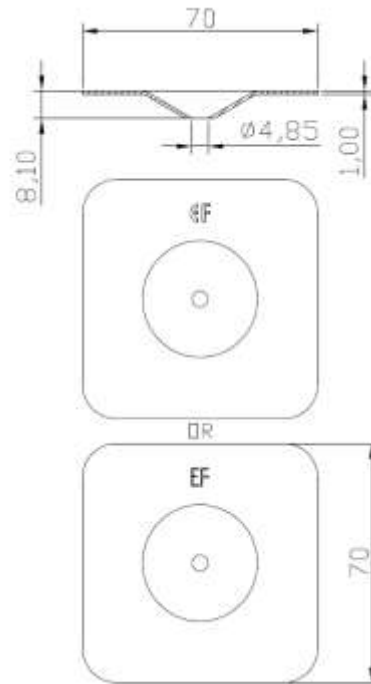
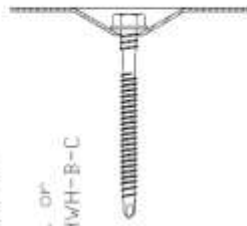
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<p>DVP-EF-5010DFR or EPM-50D-4,85-1,0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>DVP-EF-5010D or EPM-50D-6,3-1,0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex I.6</p>
<p>EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B) EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)</p>	<p>of European Technical Assessment ETA-23/0651</p>

DVP-EF-7070D or EPM-7070D-4.85-1.0

EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B

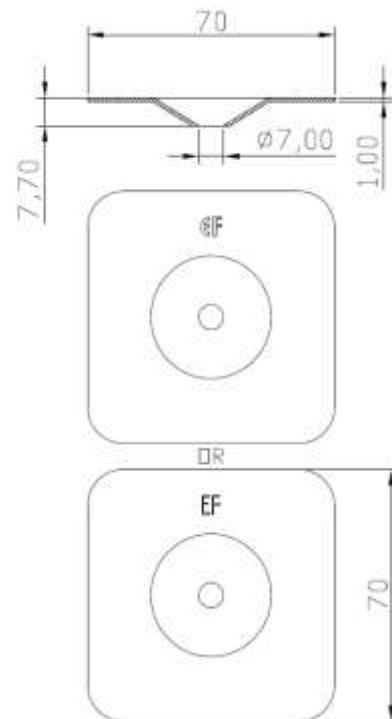
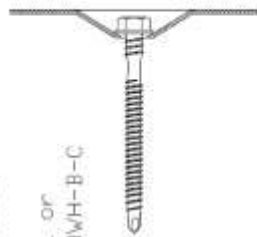
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



DVP-DF-7070D or EPM-7070D-7.0-1.0

EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B

EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



Eurofast Flat Roof Fasteners

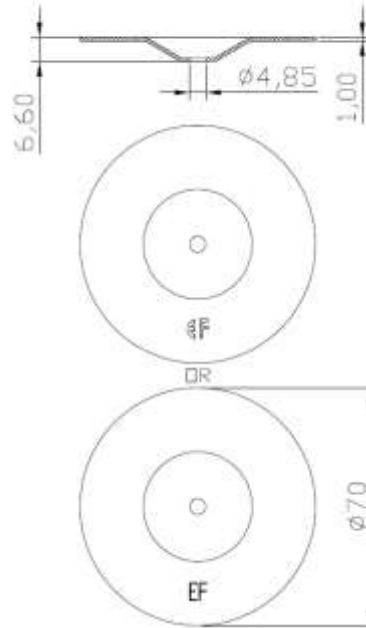
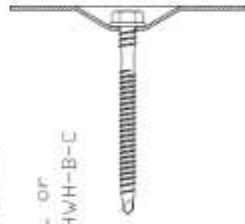
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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DVP-EF-7010DFR or EPM-70D-4.85-1.0

EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B

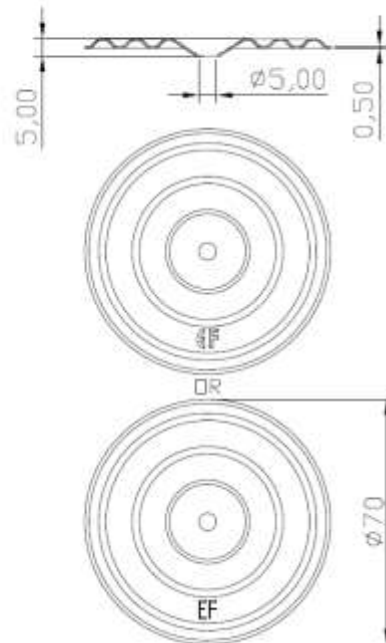
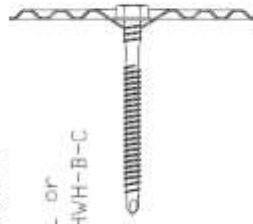
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



DVP-EF-7005D or EPM-70D-5.0-0.5

EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B

EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



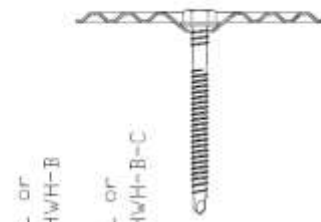
Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

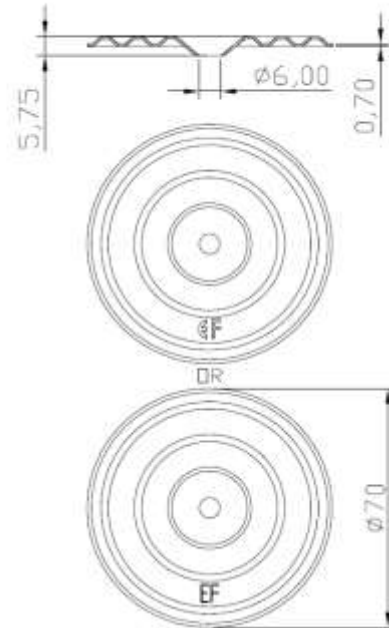
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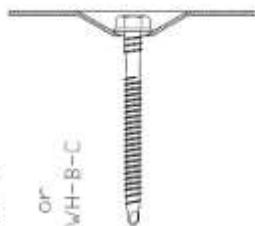
DVP-EF-7007D or EPM-70D-6.0-0.7



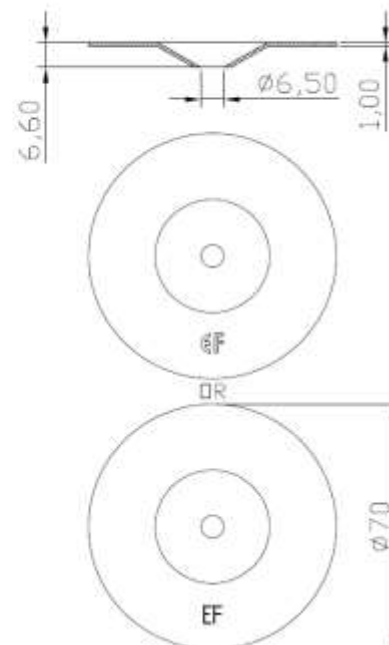
EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



DVP-EF-7010D or EPM-70D-6.5-1.0



EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C

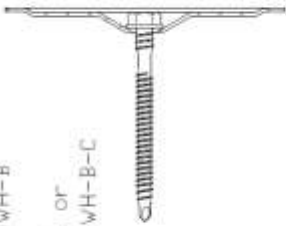
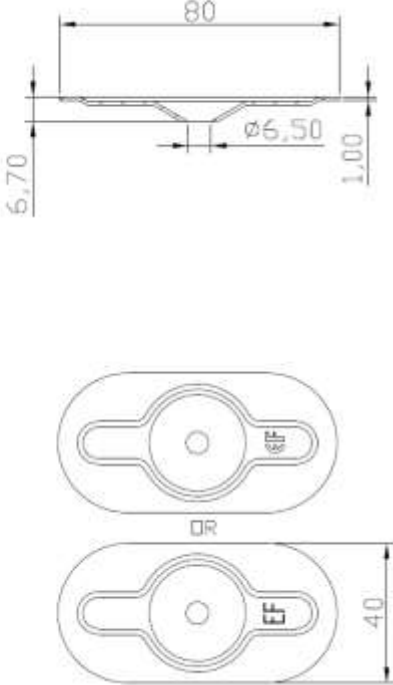
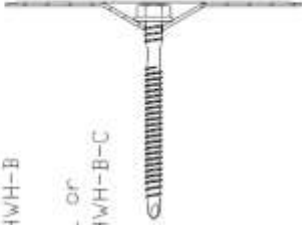



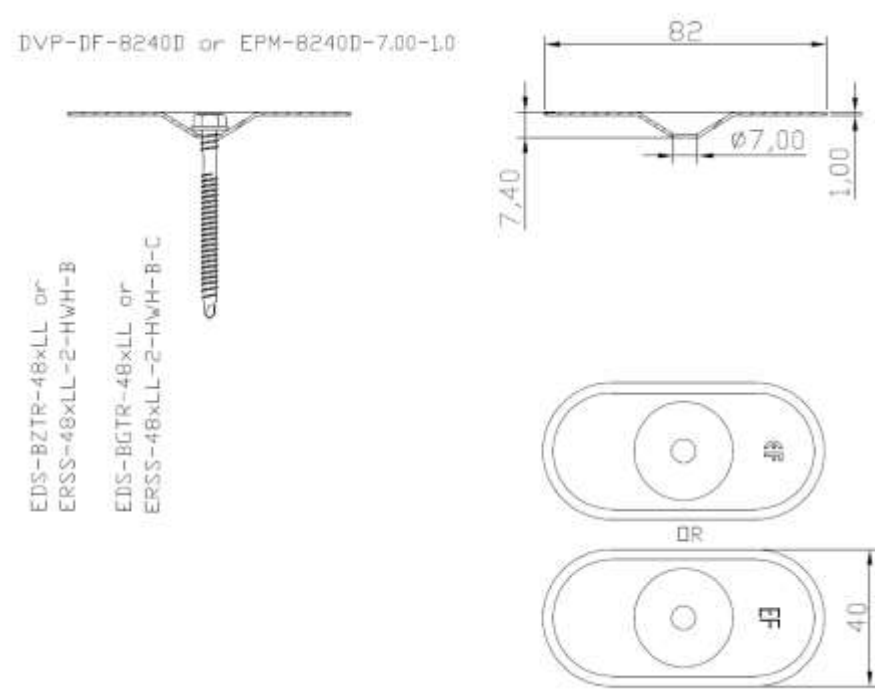
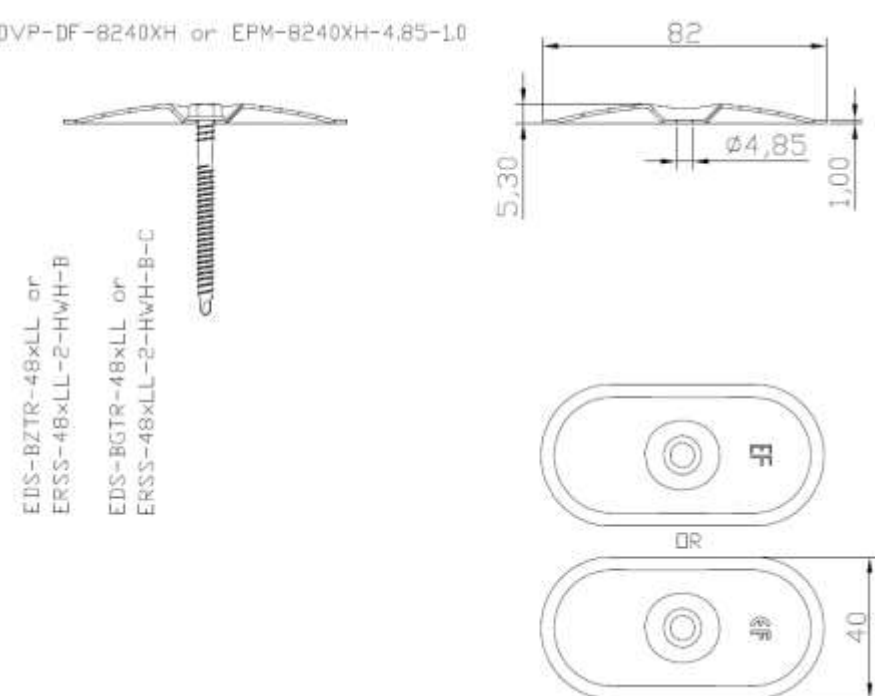
Eurofast Flat Roof Fasteners

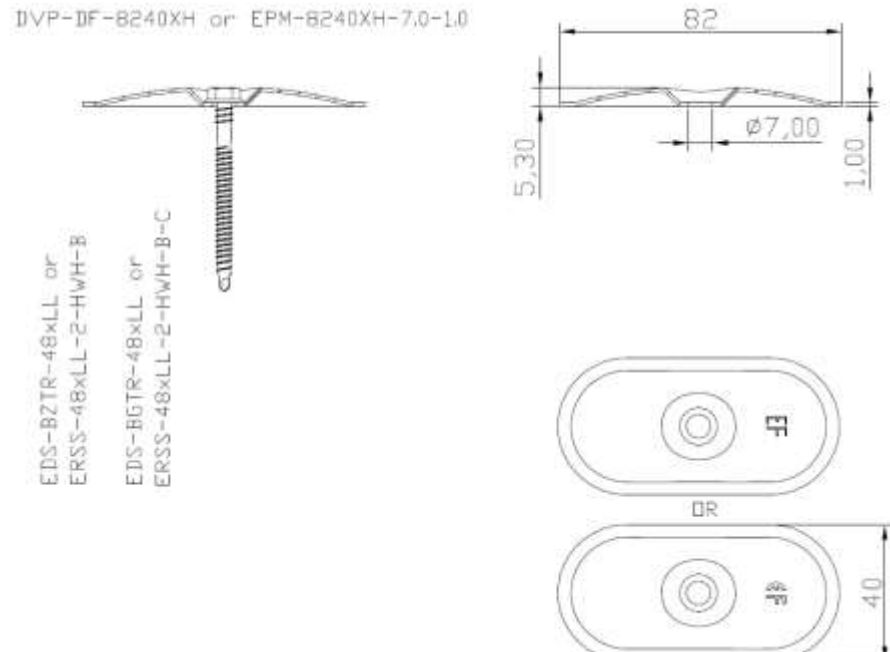
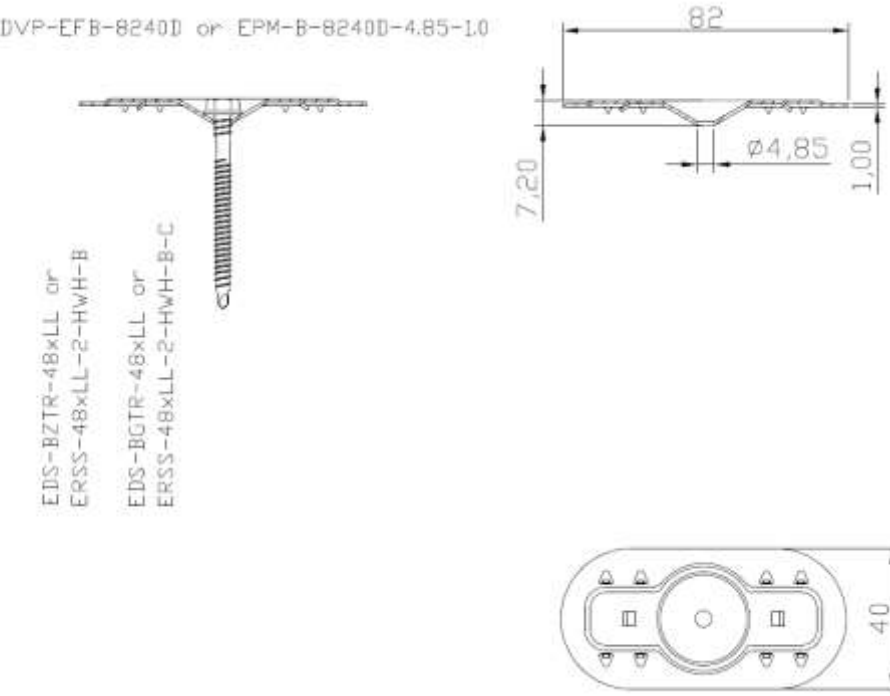
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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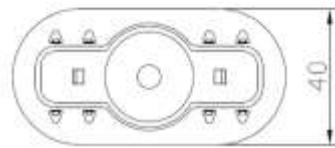
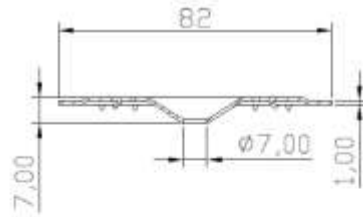
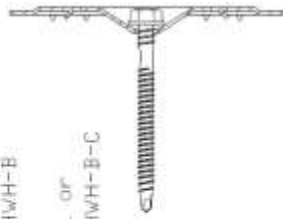
<p>DVP-EF-8040D or EPM-8040D-6,5-1.0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>DVP-EF-8240D or EPM-8240D-4.85-1.0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex I.10</p>
<p>EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B) EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)</p>	<p>of European Technical Assessment ETA-23/0651</p>

<p>DVP-DF-8240D or EPM-8240D-7.00-1.0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	 <p>DVP-DF-8240XH or EPM-8240XH-4.85-1.0</p> <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex I.11 of European Technical Assessment ETA-23/0651</p>
<p>EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B) EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)</p>	

<p>DVP-DF-8240XH or EPM-8240XH-7.0-1.0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>DVP-EFB-8240D or EPM-B-8240D-4.85-1.0</p>  <p>EDS-BZTR-48xLL or ERSS-48xLL-2-HWH-B</p> <p>EDS-BGTR-48xLL or ERSS-48xLL-2-HWH-B-C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex I.12</p>
<p>EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B) EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)</p>	<p>of European Technical Assessment ETA-23/0651</p>

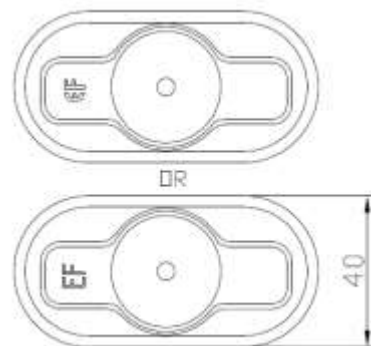
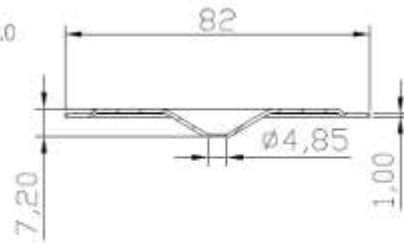
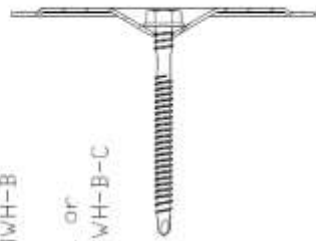
DVP-DFB-8240D or EPM-B-8240D-7.0-1.0

EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



DVP-EFZK-8240D or EPM-ZK-8240D-4.85-1.0

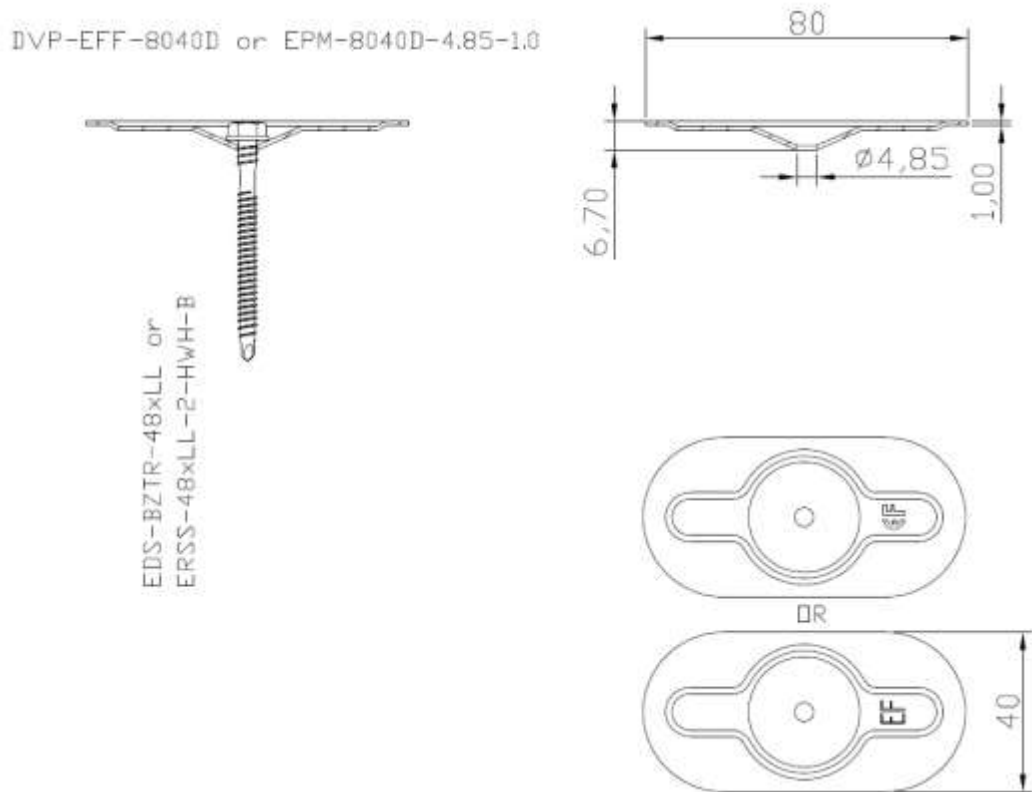
EDS-BZTR-48xLL or
ERSS-48xLL-2-HWH-B
EDS-BGTR-48xLL or
ERSS-48xLL-2-HWH-B-C



Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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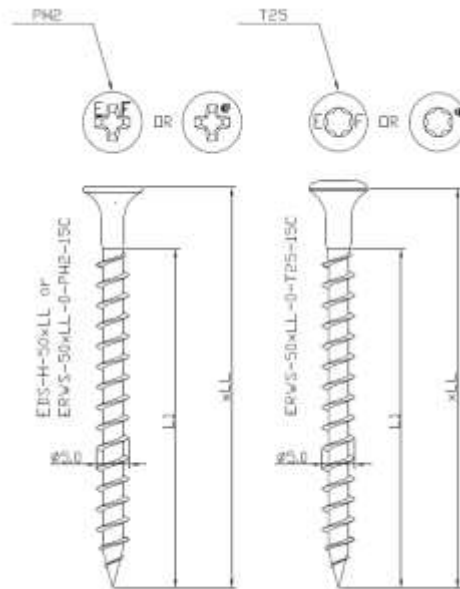


Eurofast Flat Roof Fasteners

EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)	1,17	1,20	1,28	1,18	1,06	1,21	2,00
ERWS-50xLL-0-T25-15C	1,17	1,20	1,28	1,18	1,06	1,21	2,00

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	DVP-EF-7007D (EPM-70D-6.0-0.7)	DVP-EFB-51NS (EPM-B-51N-5.4-0.84)	DVP-EF-51N (EPM-51N-6.7-0.84)	DVP-EF-4010N3 (EPM-N3-40N-5.85-1.0)	EPM-51N-5.6-0.84
	DVP-EF-7007H (EPM-70H-6.0-0.7)	-	-	DVP-EF-5010N3 (EPM-N3-50N-5.85-1.0)	EPM-IP-80-6.8-0.8
	DVP-EF-7007N (EPM-70N-6.0-0.7)	-	-	-	EPM-IT-80-6.8-0.8
	-	-	-	-	EPM-IE-80-6.8-0.8
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)	2,91	3,87	2,93	3,96	2,92
ERWS-50xLL-0-T25-15C	2,91	3,87	2,93	3,96	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
	TRP-45xLL (EPT-45xLL-PA)	HTLK-45xLL (EPT-O-45xLL-PP)	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
	BTRP-45xLL (EPT-B-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	DVP-EF-5010DFR (EPM-50D-4.85-1.0)
	TWP-8040xLL (EPT-8040xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	DVP-EF-7070D (EPM-7070D-4.85-1.0)
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	DVP-EF-7010DFR (EPM-70D-4.85-1.0)
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	DVP-EF-8240D (EPM-8240D-4.85-1.0)
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EF-8240XH (EPM-8240XH-4.85-1.0)
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EFB-8240D (EPM-B-8240D-4.85-1.0)
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	DVP-EFZK-8240D (EPM-ZK-8240D-4.85-1.0)
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	DVP-EFF-8040D (EPM-8040D-4.85-1.0)
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)	2,67	1,77	5,18
ERWS-50xLL-0-T25-15C	2,67	1,77	5,18

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7005D (EPM-70D-5.0-0.5)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7005N (EPM-70N-5.1-0.5)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	-
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)	5,05	4,43	3,89	2,96	2,36
ERWS-50xLL-0-T25-15C	5,05	4,43	3,89	2,96	2,36

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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**Screw:**

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
 ERWS-50xLL-0-T25-15C

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	EPM-51N-5.6-0.84	
DVP-EF-5010DFR	(EPM-50D-4.85-1.0)	DVP-EFB-8240D	(EPM-B-8240D-4.85-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-EFZK-8240D	(EPM-ZK-8240D-4.85-1.0)
DVP-EF-7070D	(EPM-7070D-4.85-1.0)	DVP-EF-4010N3	(EPM-N3-40N-5.85-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	DVP-EF-5010N3	(EPM-N3-50N-5.85-1.0)
DVP-EF-7010DFR	(EPM-70D-4.85-1.0)	DVP-EFF-8040D	(EPM-8040D-4.85-1.0)
DVP-EF-7005D	(EPM-70D-5.0-0.5)	EPM-IP-80-6.8-0.8	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7005N	(EPM-70N-5.1-0.5)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7007N	(EPM-70N-6.0-0.7)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-EF-8240D	(EPM-8240D-4.85-1.0)		
DVP-DF-8240D	(EPM-8240D-7.0-1.0)		
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		
DVP-EF-8240XH	(EPM-8240XH-4.85-1.0)		
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)		
DVP-EFB-51NS	(EPM-B-51N-5.4-0.84)		
DVP-EF-51N	(EPM-51N-6.7-0.84)		

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

OSB/3	$\rho_{\min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{\min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{\min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{\min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

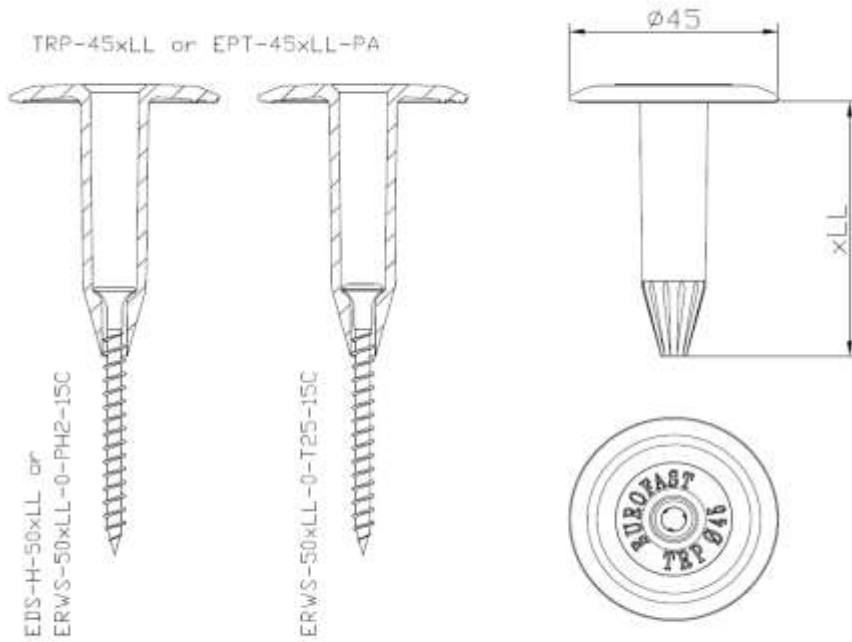
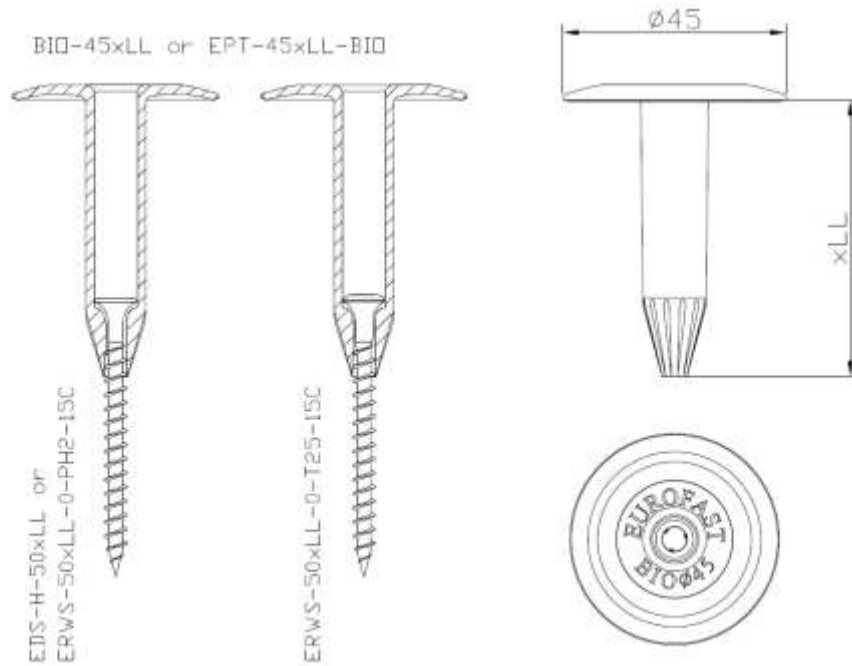
Head type:	Bugle Head / Raised Bugle Head
Recess:	PH2 / TX25
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool:	30 kg
Installation tool speed:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
 ERWS-50xLL-0-T25-15C

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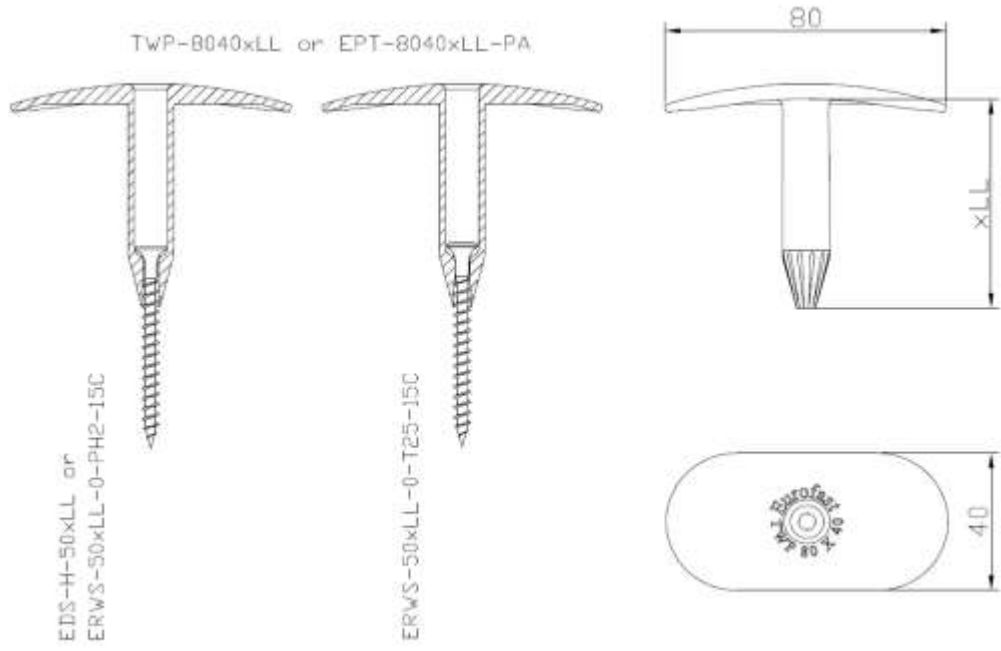
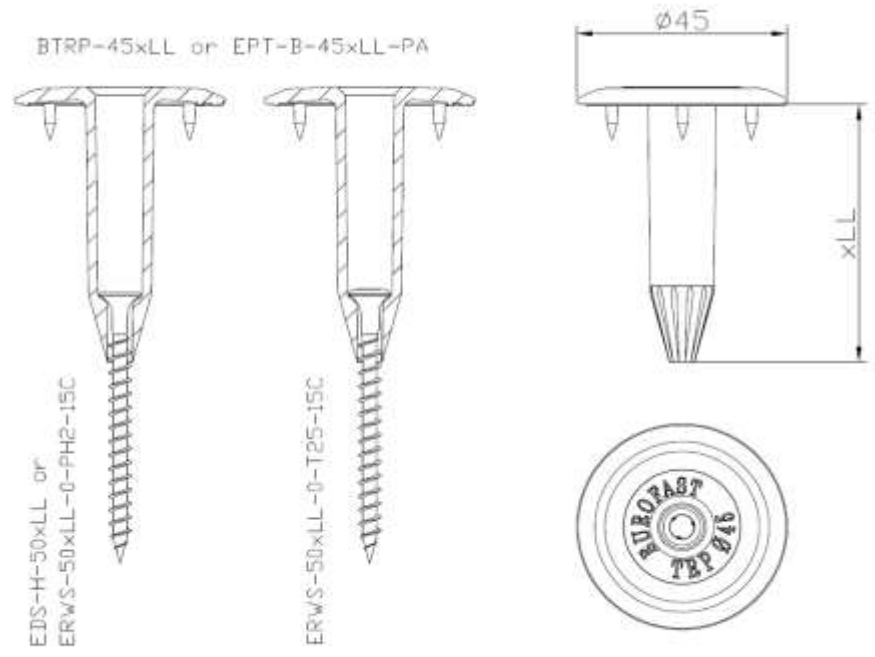


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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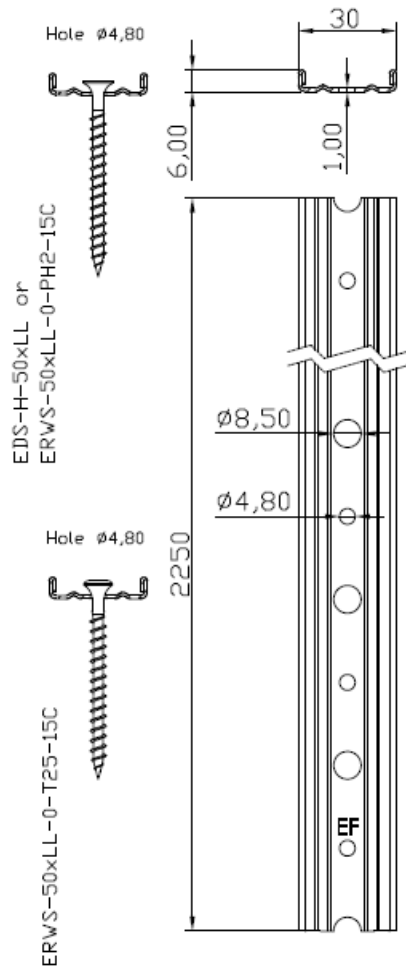
Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

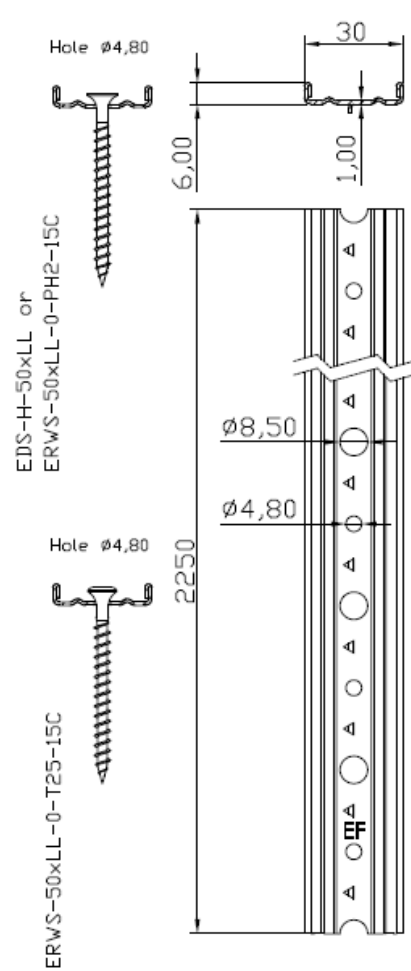
Annex J.5
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<p>EDF-BAR-F-TUBE + KMT-15xLL or ETM-T-2250-30-6.5-8.3-15.0-L0 + EPT-15xLL-PA</p> <p>Hole $\varnothing 15,00$</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>Hole $\varnothing 15,00$</p> <p>ERWS-50xLL-0-T25-15C</p>	<p>EDF-BAR-F-TUBE or ETM-T-2250-30-6.5-8.3-15.0-L0</p> <p>Hole $\varnothing 6,50$</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>Hole $\varnothing 6,50$</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>		<p>Annex J.6 of European Technical Assessment ETA-23/0651</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>		

EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0

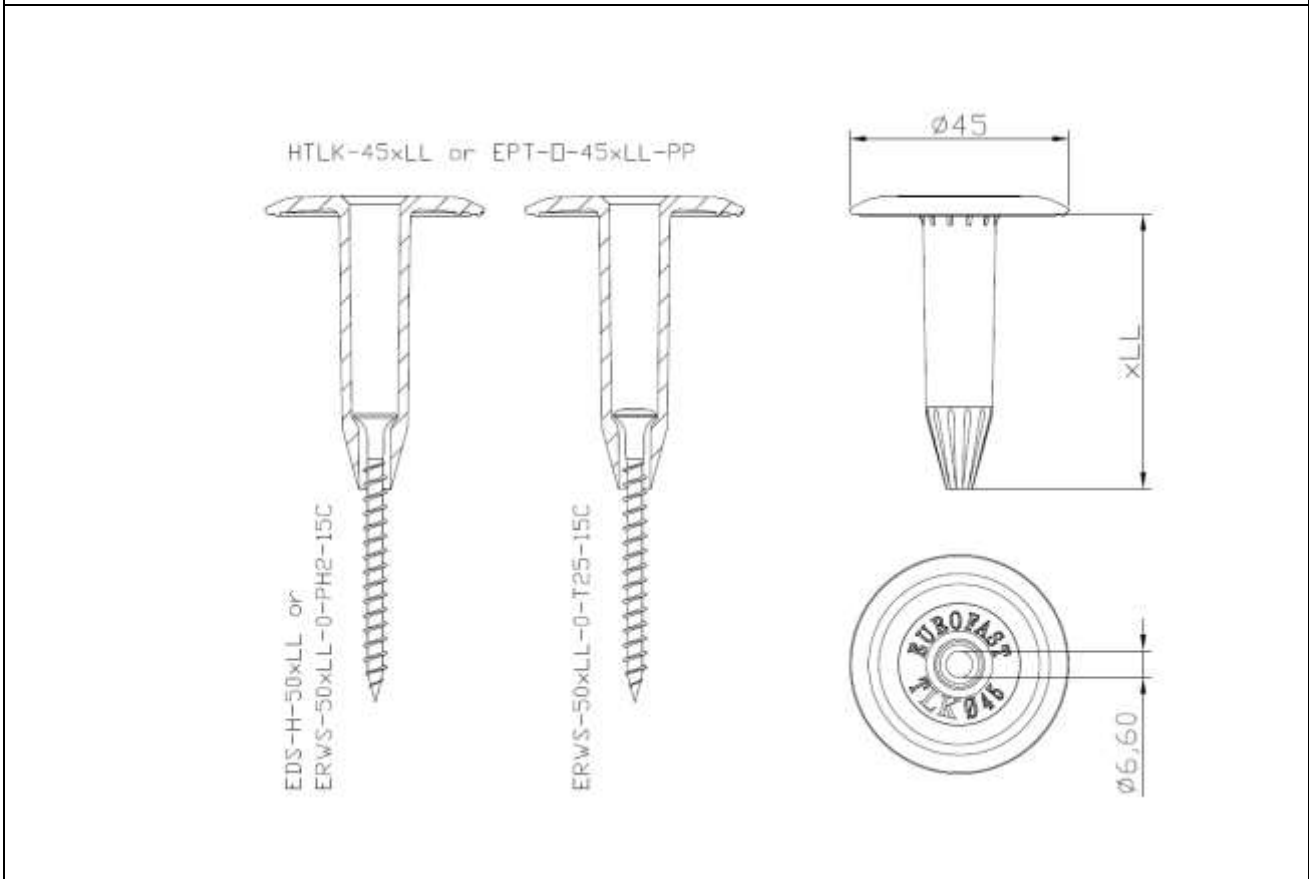
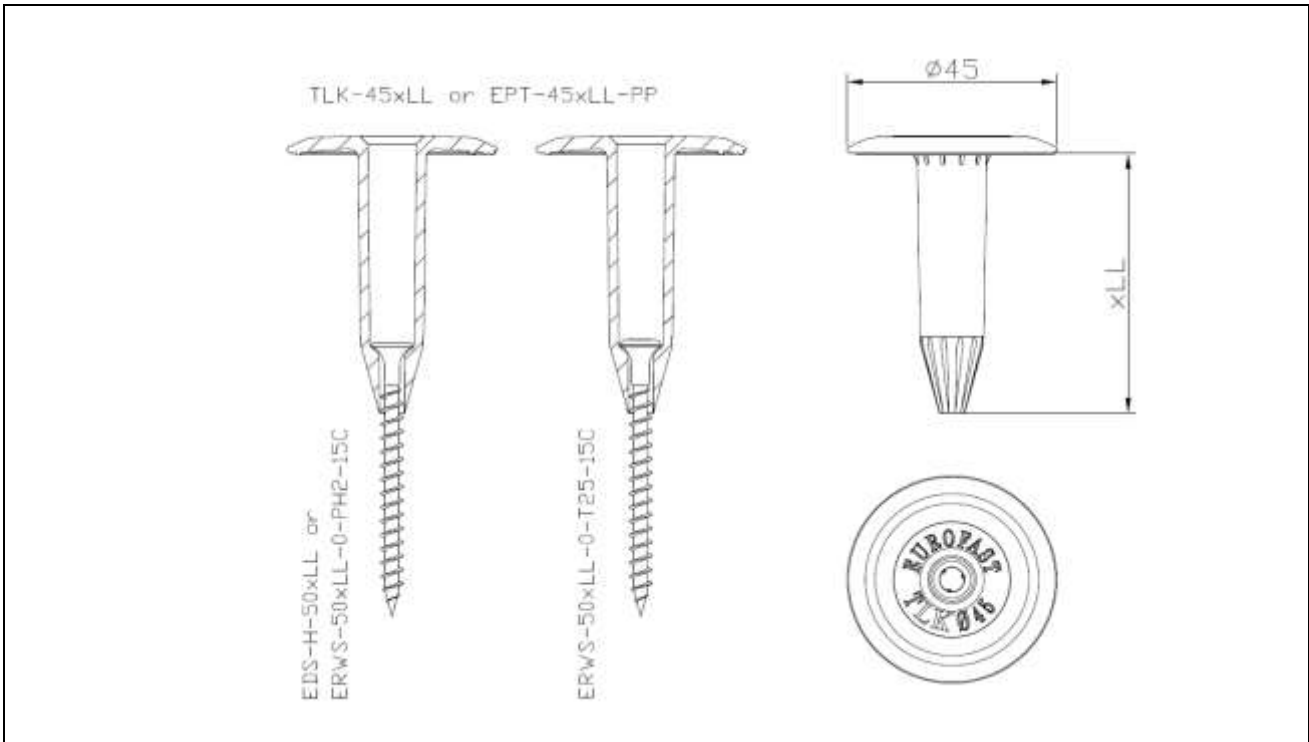


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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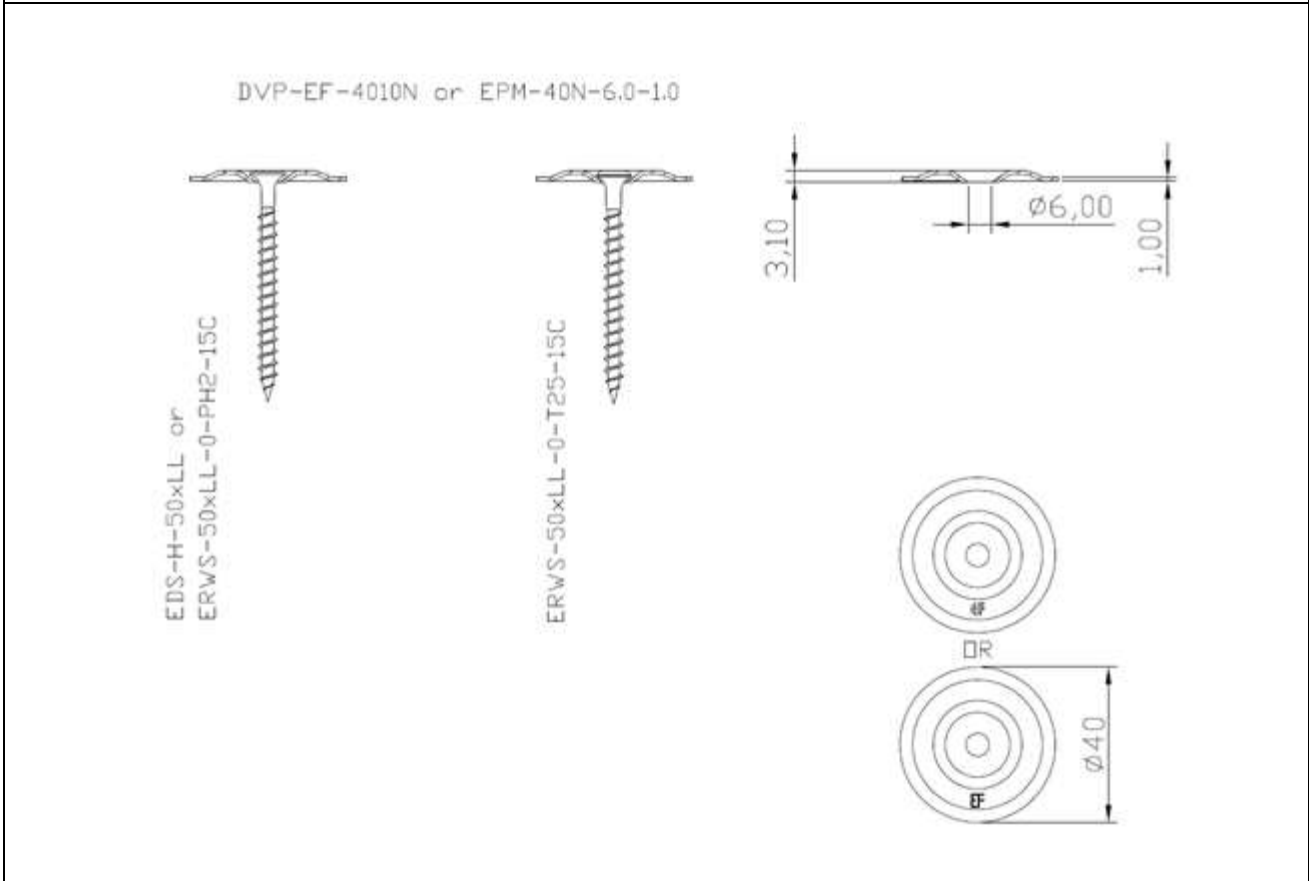
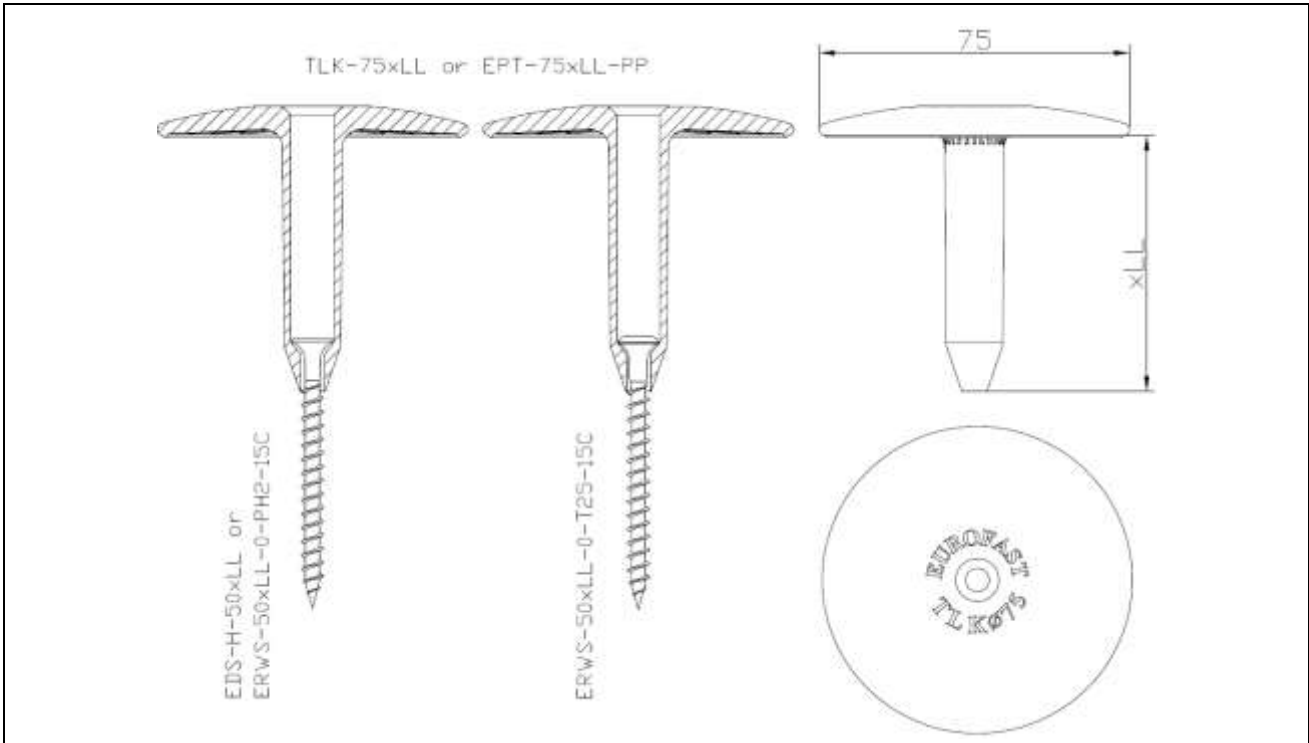


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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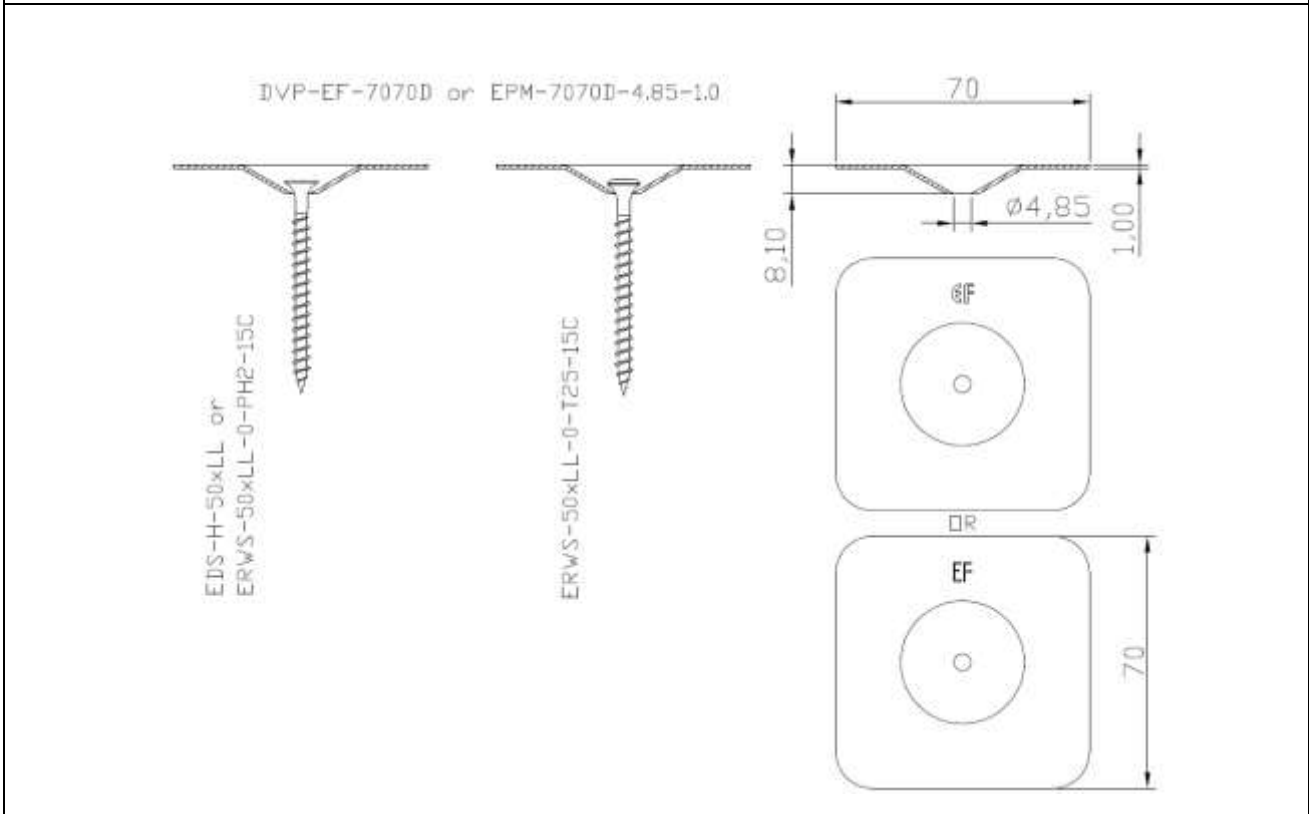
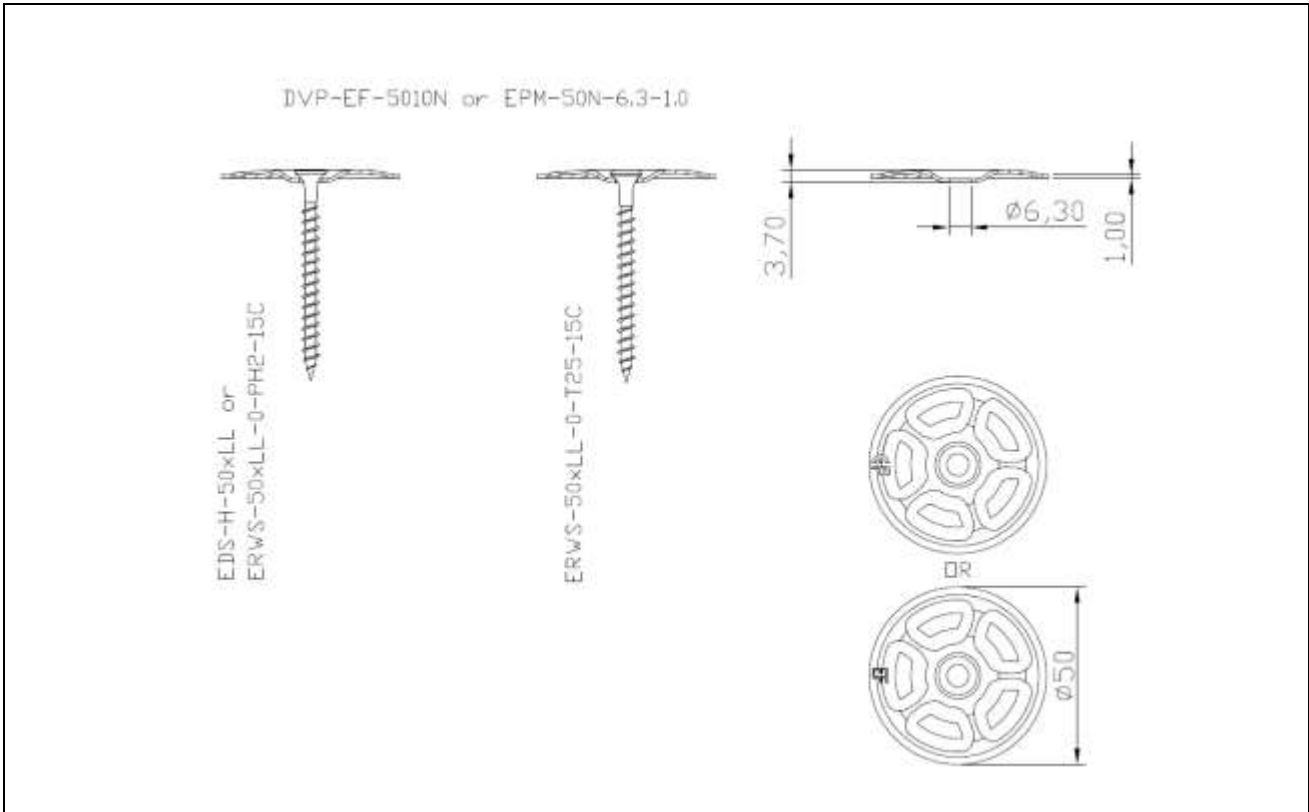
Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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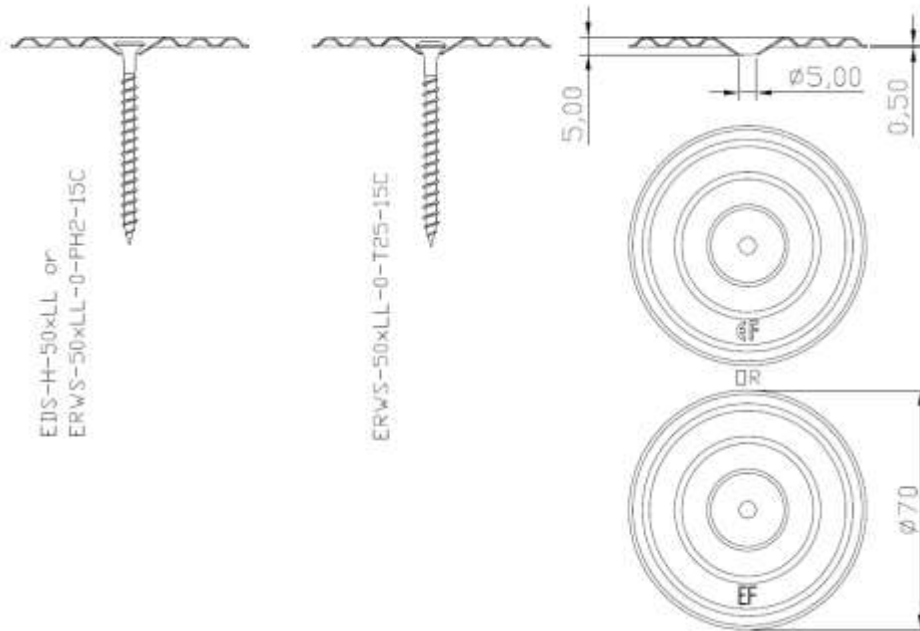
<p>DVP-EF-5010DFR or EPM-50D-4.85-1.0</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>DVP-EF-5010D or EPM-50D-6.3-1.0</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.10</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p>of European Technical Assessment ETA-23/0651</p>



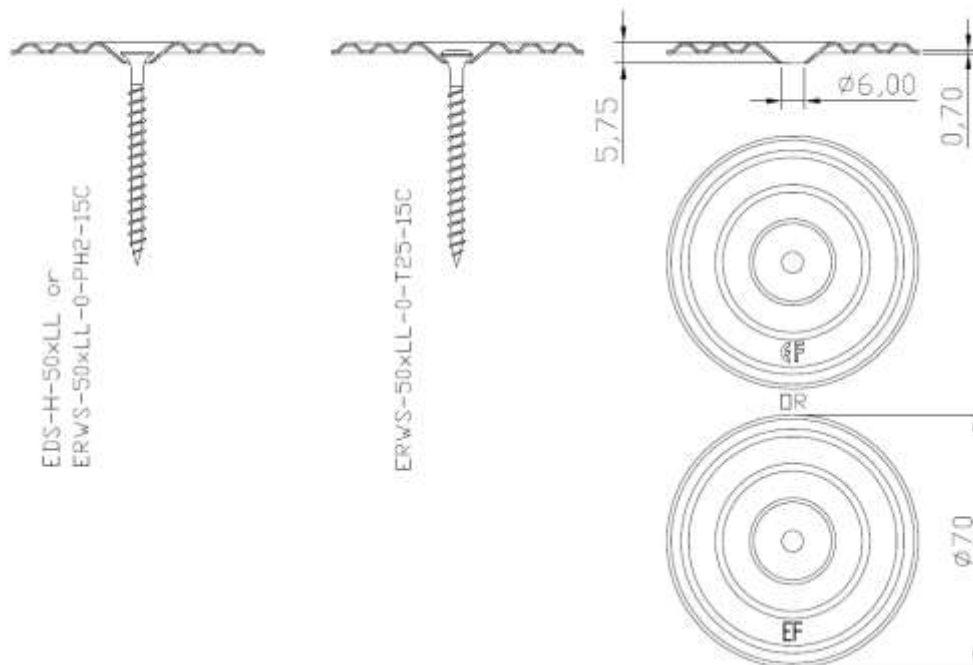
Eurofast Flat Roof Fasteners	Annex J.11 of European Technical Assessment ETA-23/0651
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

<p style="text-align: center;">DVP-DF-7070D or EPM-7070D-7,0-1.0</p>	
<p style="text-align: center;">DVP-EF-7010DFR or EPM-70D-4,85-1.0</p>	<p style="text-align: center;">Eurofast Flat Roof Fasteners</p>
<p style="text-align: center;">EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p style="text-align: center;">Annex J.12 of European Technical Assessment ETA-23/0651</p>

DVP-EF-7005D or EPM-70D-5.0-0,5



DVP-EF-7007D or EPM-70D-6.0-0,7



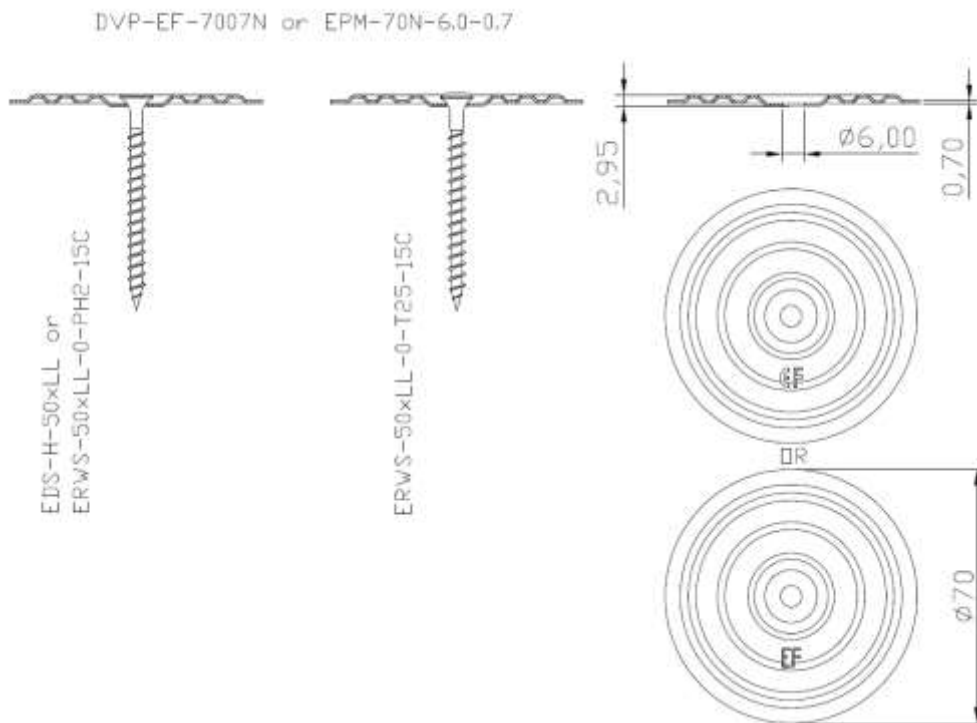
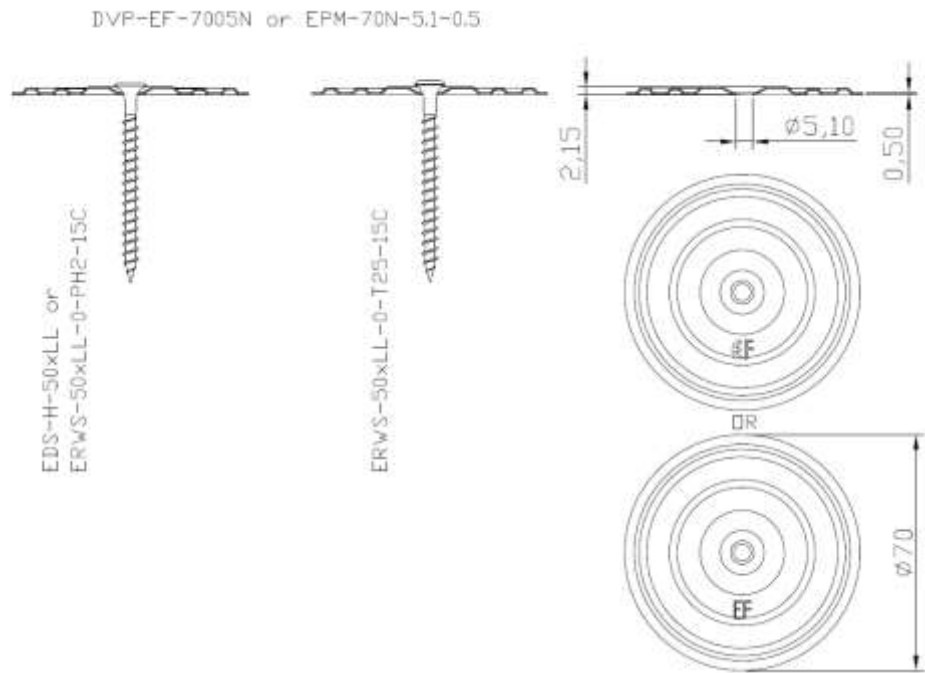
Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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<p>DVP-EF-7010D or EPM-70D-6.5-1,0</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>DVP-EF-7007H or EPM-70H-6.0-0,7</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.14</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p>of European Technical Assessment ETA-23/0651</p>

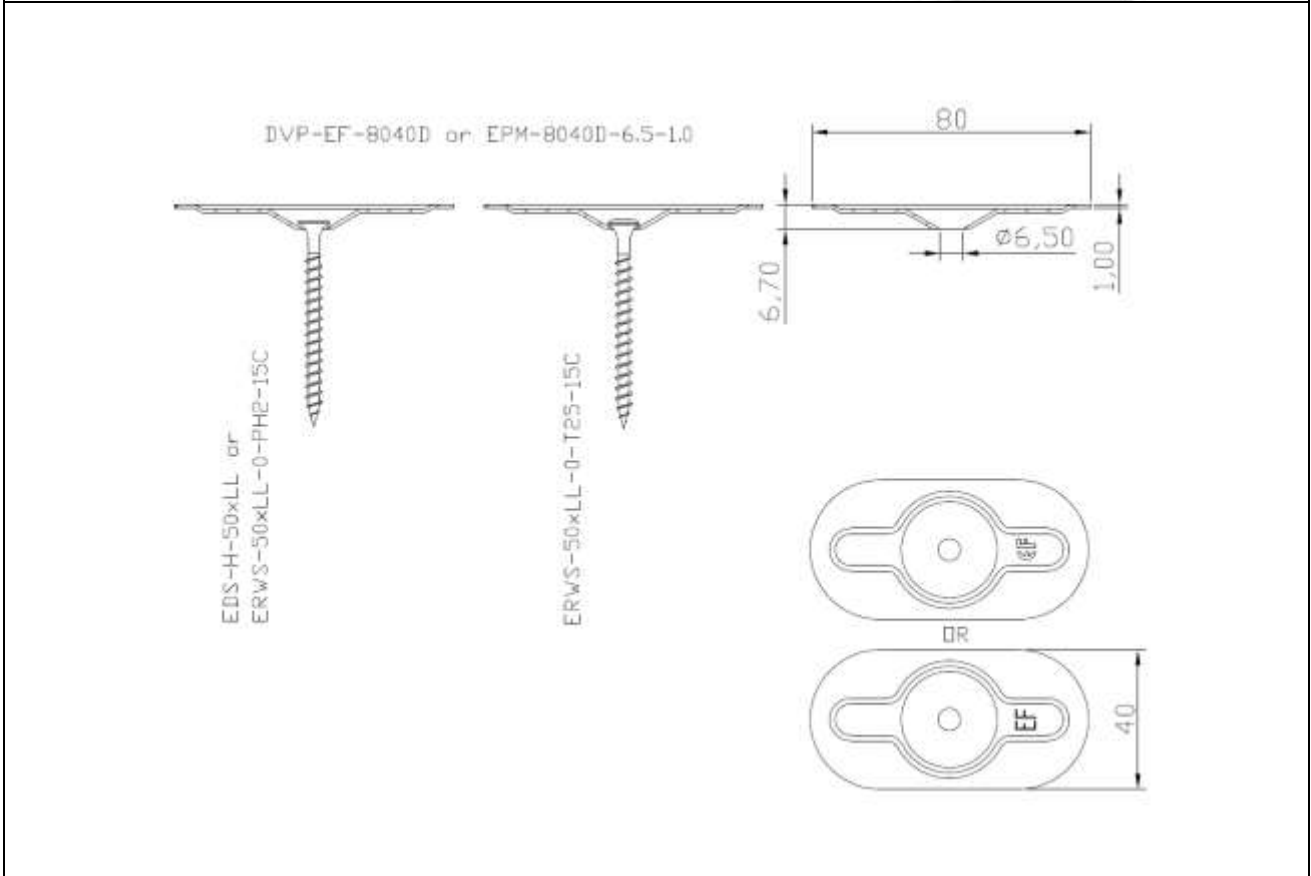
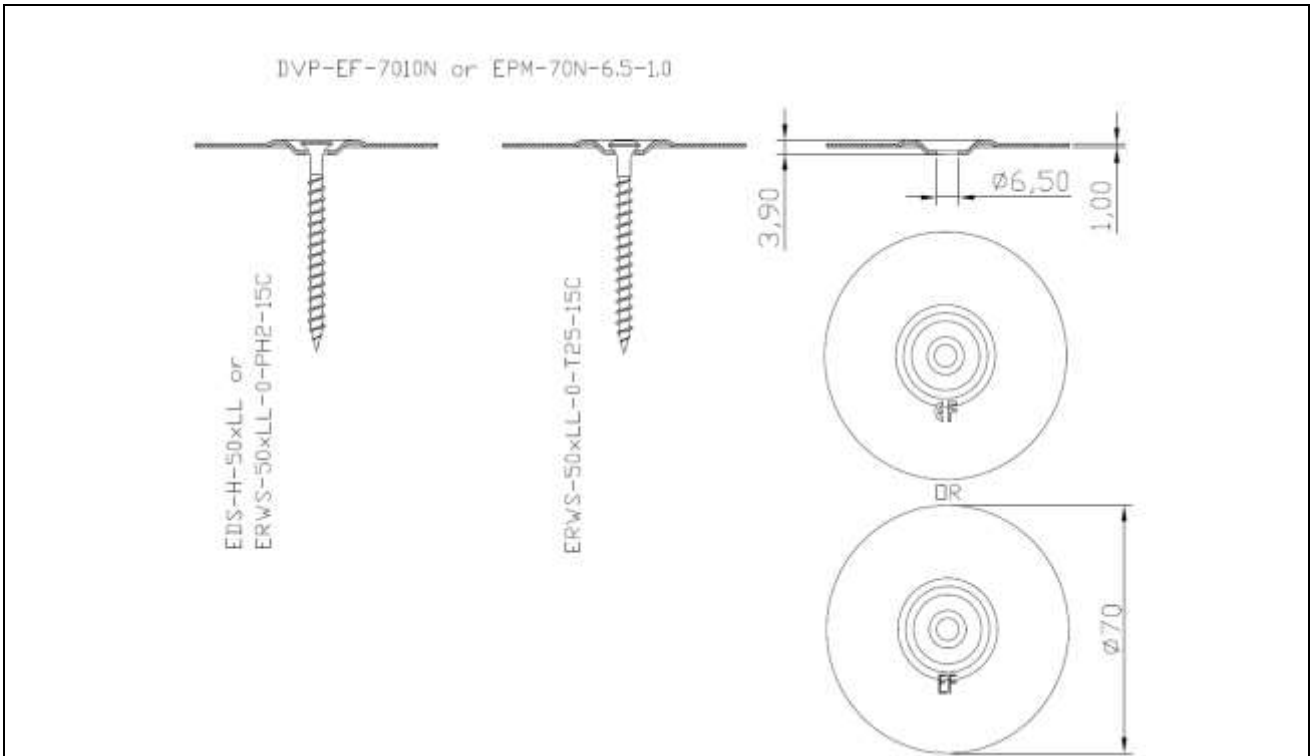


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

Annex J.15

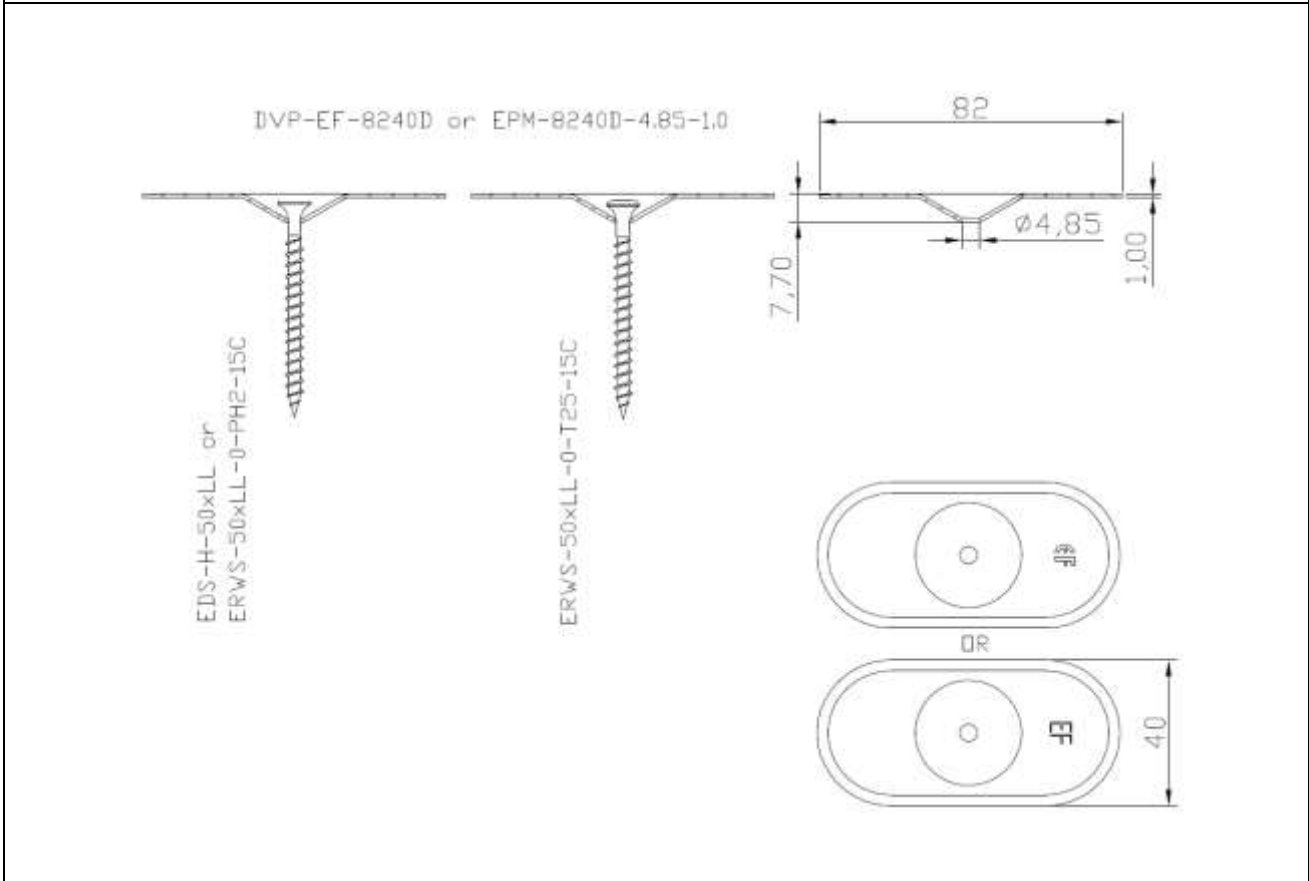
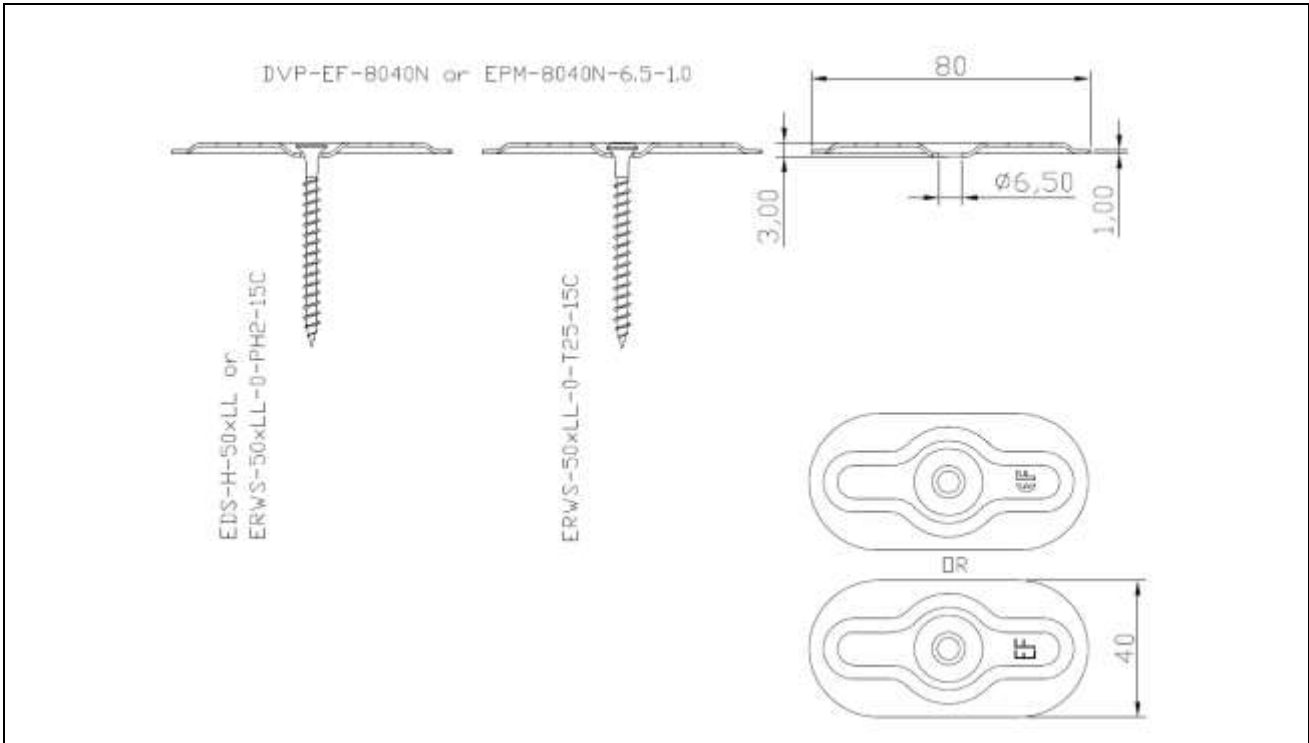
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Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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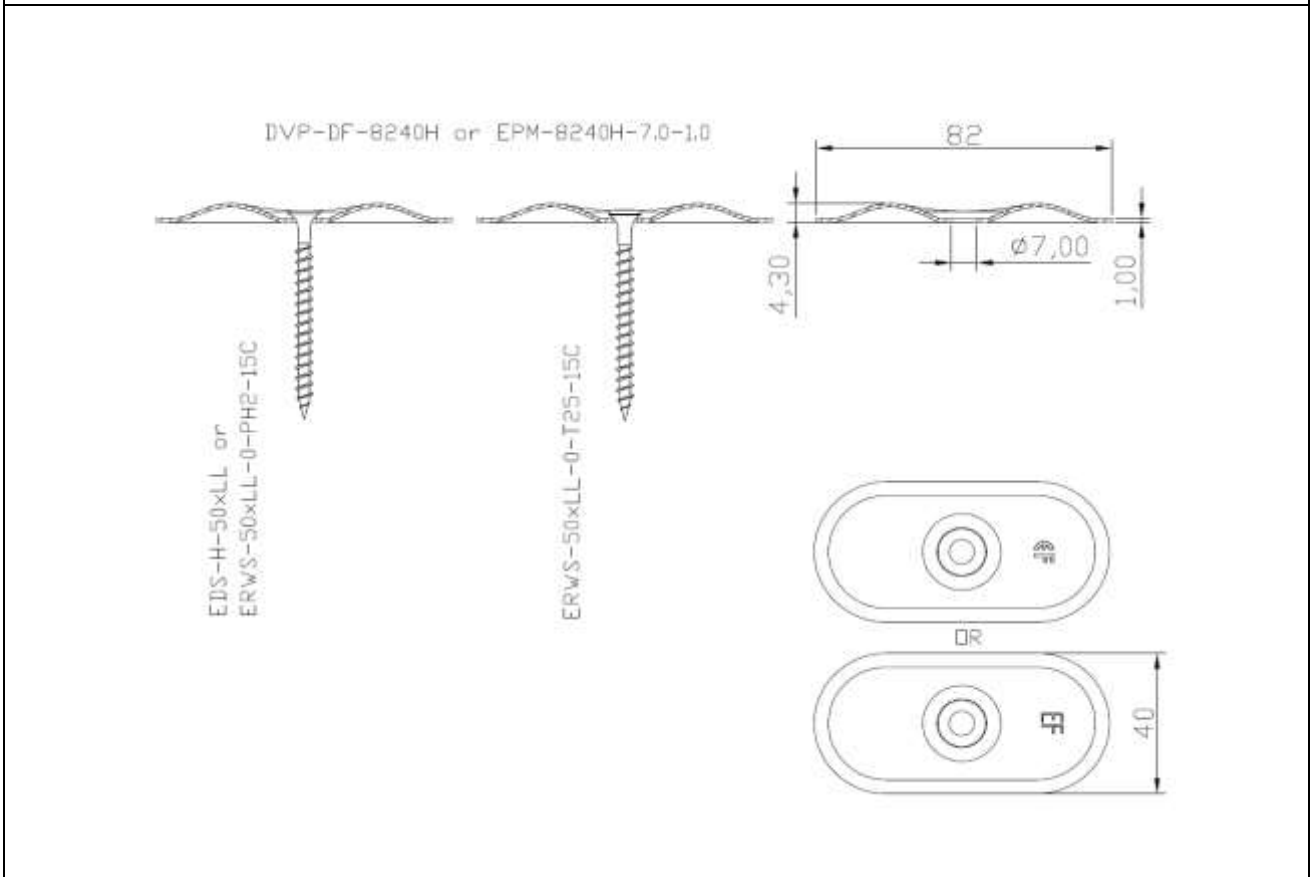
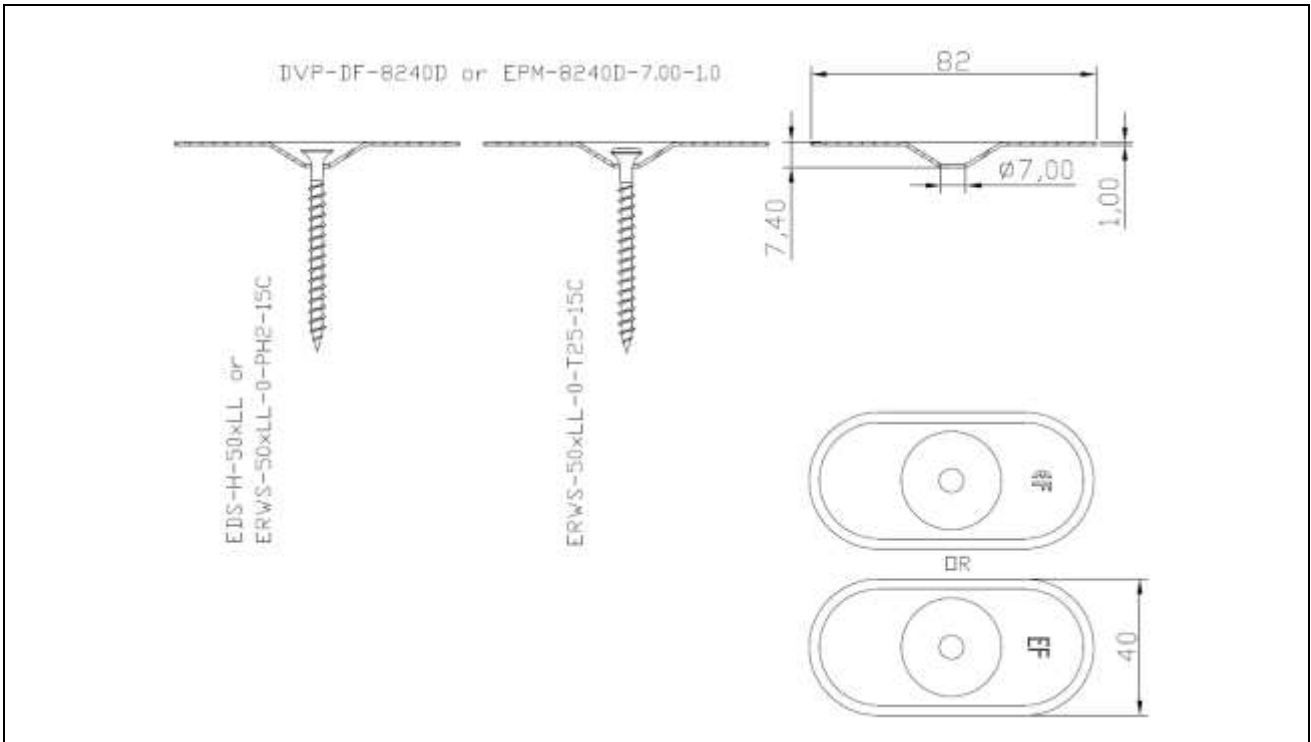


Eurofast Flat Roof Fasteners

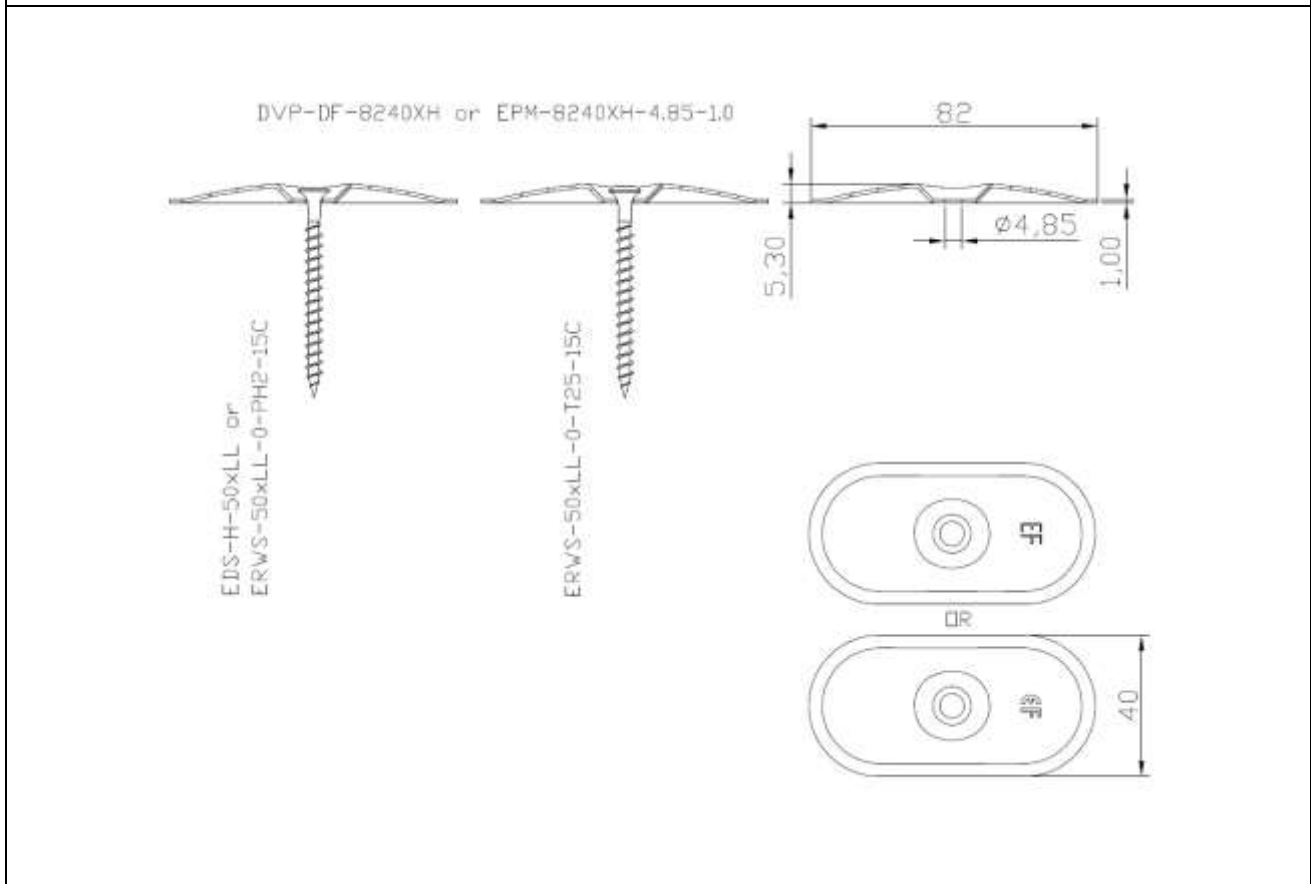
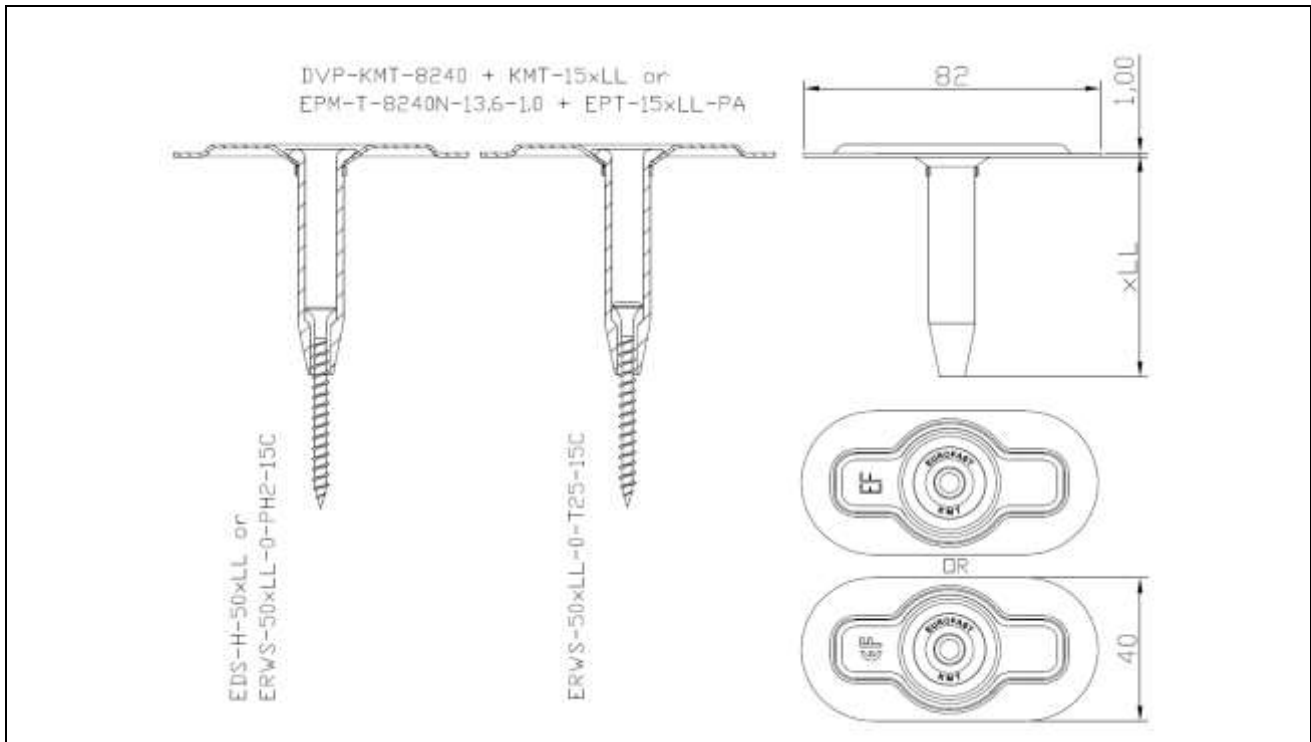
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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Eurofast Flat Roof Fasteners	Annex J.18 of European Technical Assessment ETA-23/0651
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

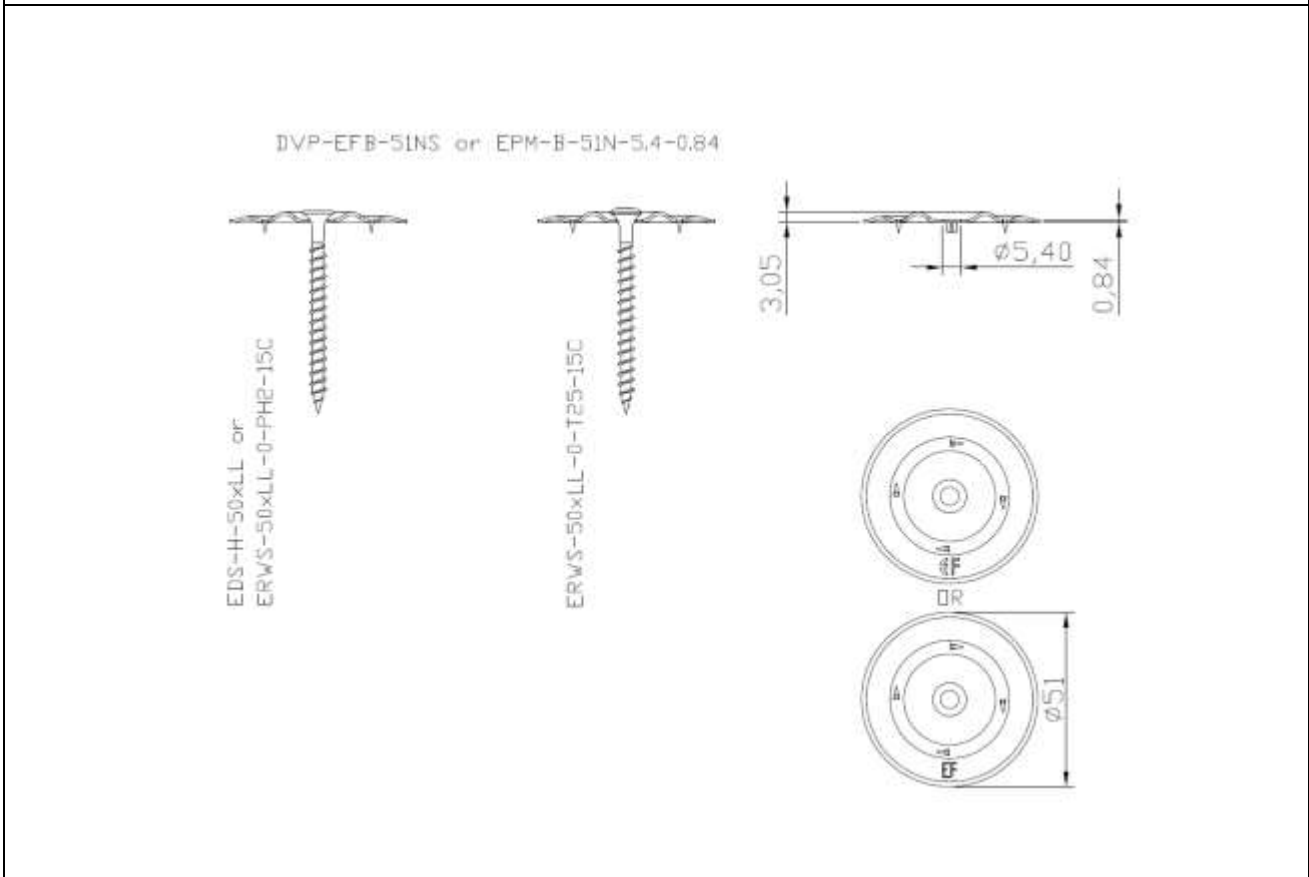
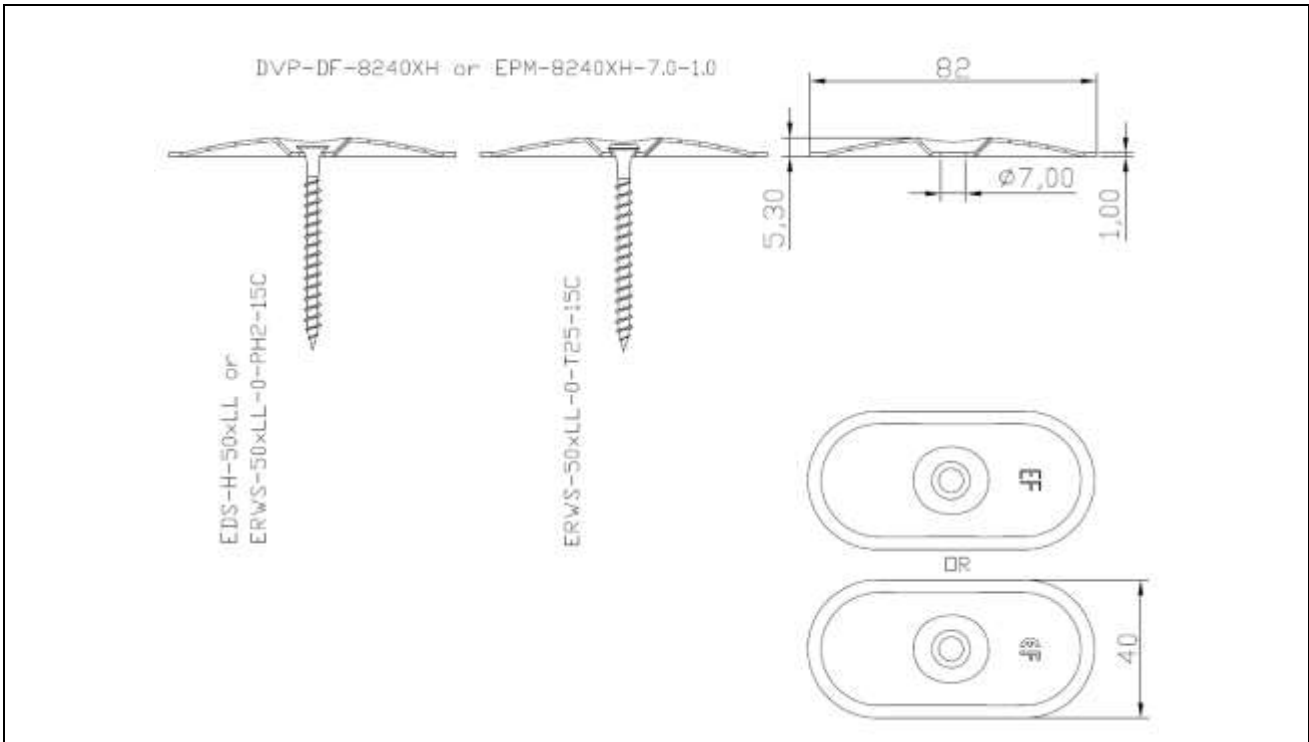


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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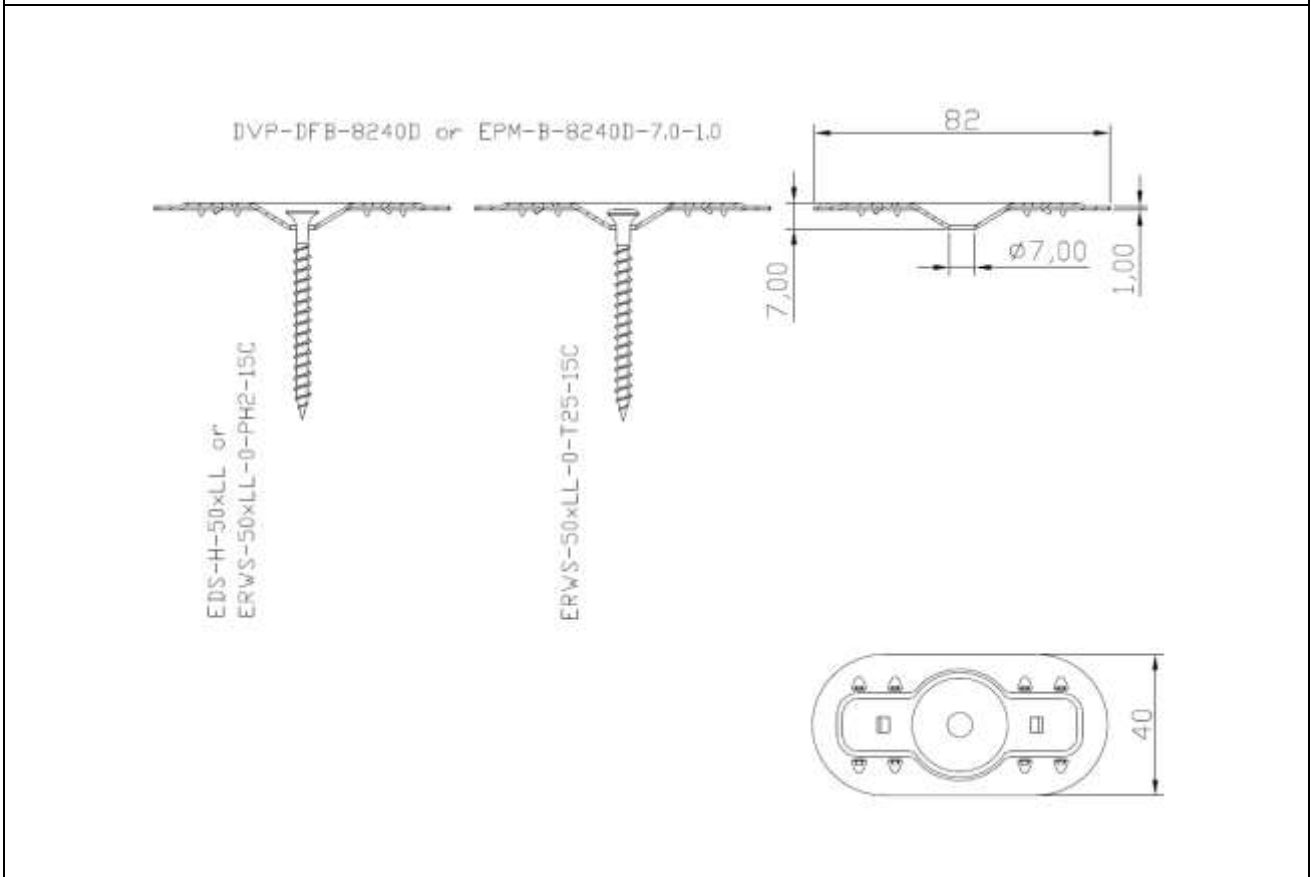
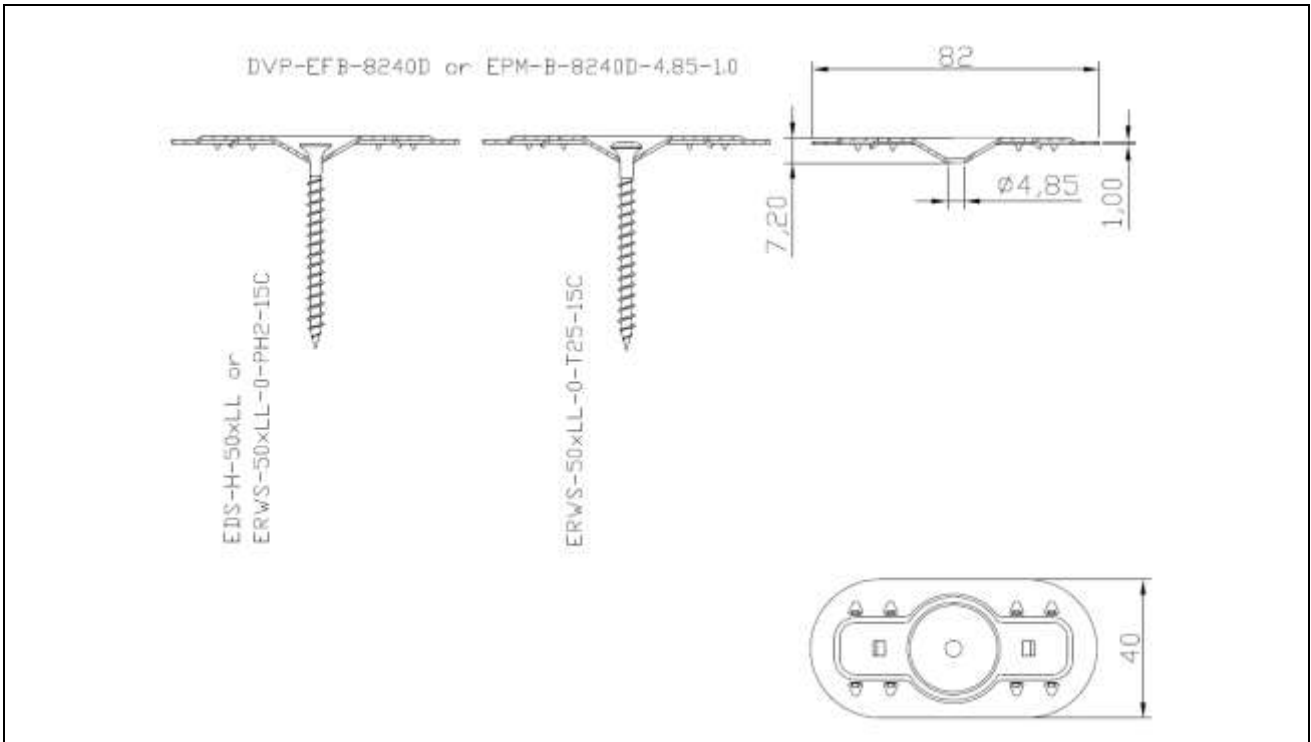
Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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<p>DVP-EF-51N or EPM-51N-6.7-0.84</p>	
<p>EPM-51N-5.6-0.84</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.21</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p>of European Technical Assessment ETA-23/0651</p>

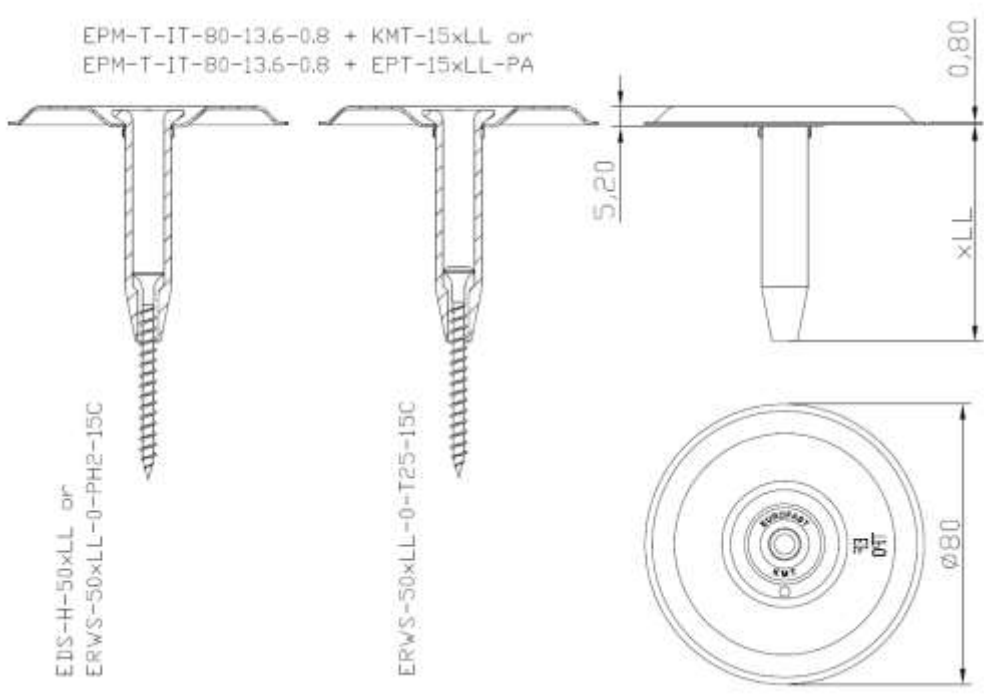
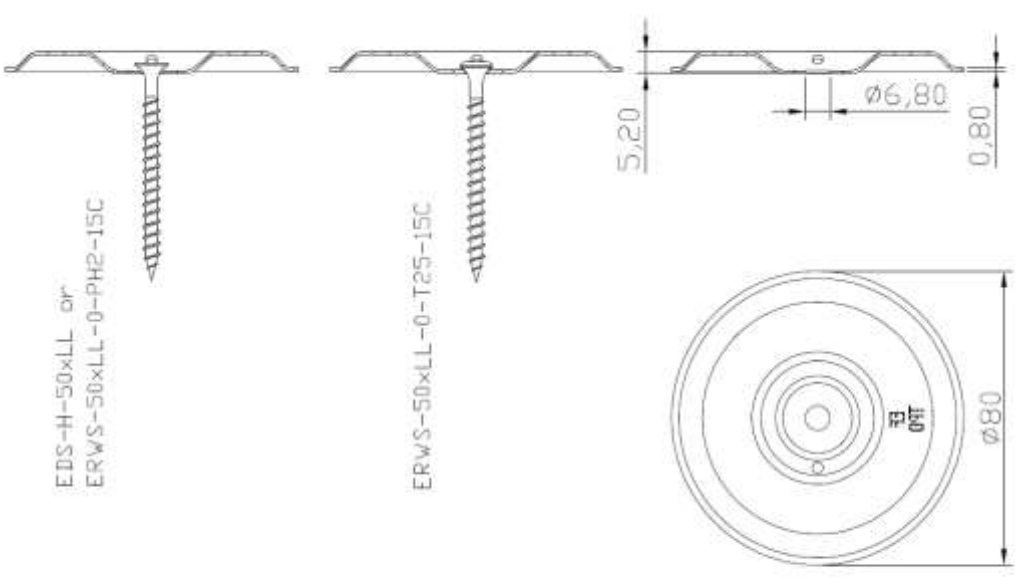


Eurofast Flat Roof Fasteners	Annex J.22
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	of European Technical Assessment ETA-23/0651

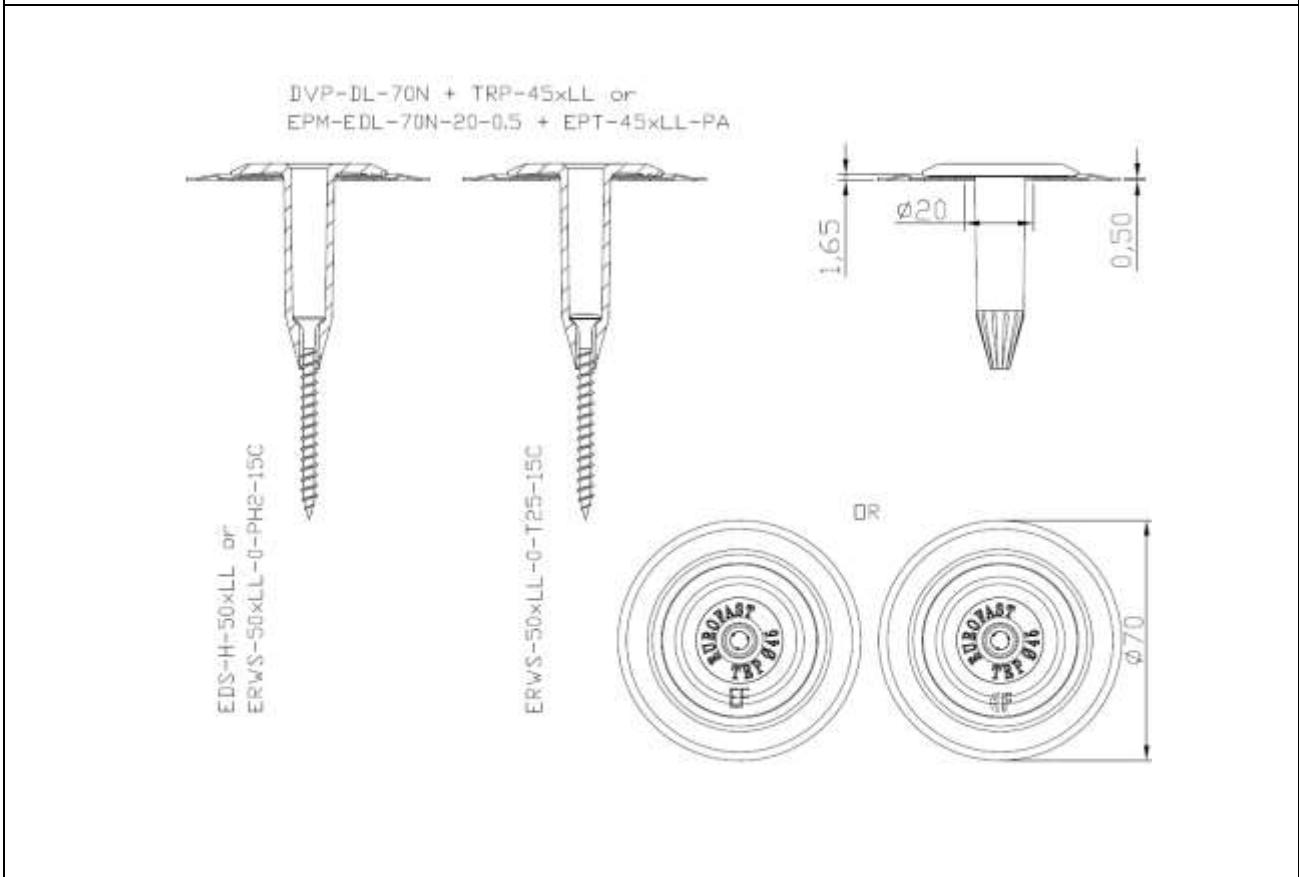
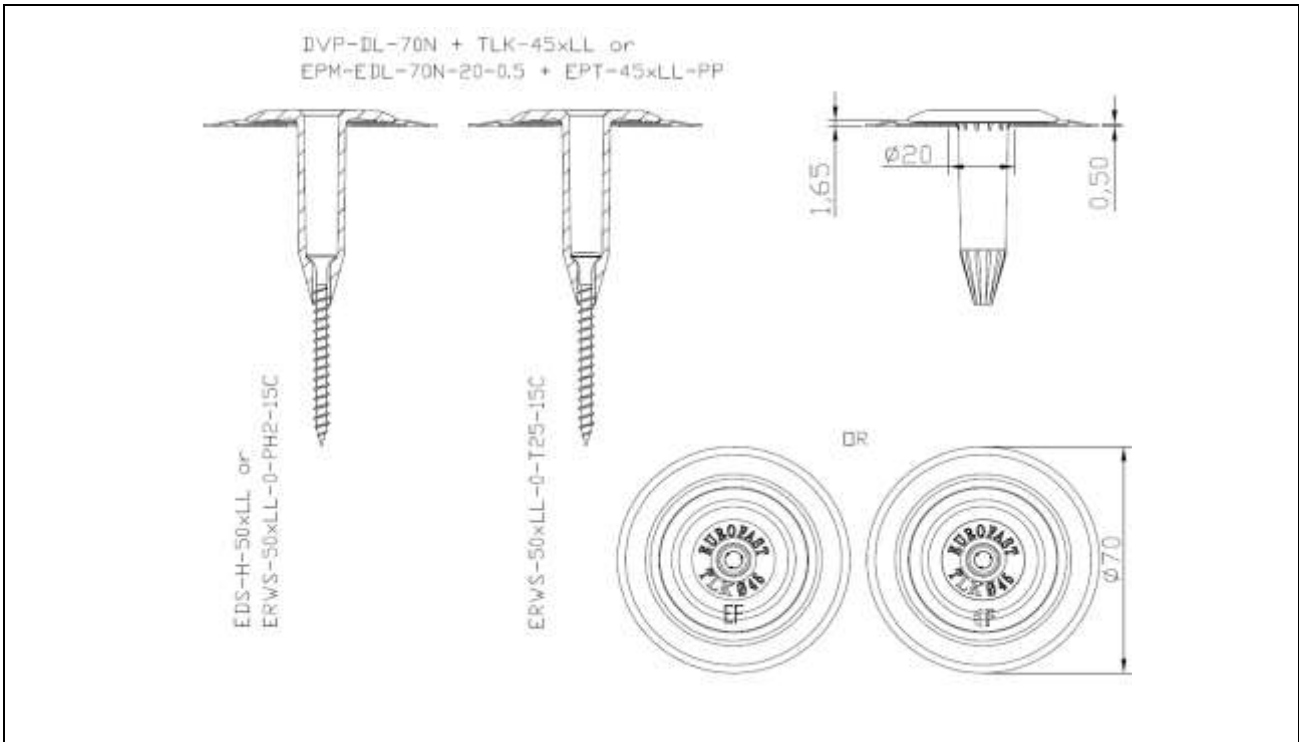
<p style="text-align: center;">DVP-EFZK-8240D or EPM-ZK-8240D-4,85-1,0</p> <p style="text-align: center;">EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p style="text-align: center;">ERWS-50xLL-0-T25-15C</p>	
<p style="text-align: center;">DVP-EF-4010N3 or EPM-N3-40N-5,85-1,0</p> <p style="text-align: center;">EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p style="text-align: center;">ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p> <p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p>Annex J.23 of European Technical Assessment ETA-23/0651</p>

<p>DVP-EF-5010N3 or EPM-N3-50N-5.85-1.0</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>DVP-EFF-8040D or EPM-8040D-4.85-1.0</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.24</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p>of European Technical Assessment ETA-23/0651</p>

<p>EPM-T-IP-80-13,6-0,8 + KMT-15xLL or EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>EPM-IP-80-6,8-0,8</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.25 of European Technical Assessment ETA-23/0651</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	

<p>EPM-T-IT-80-13.6-0.8 + KMT-15xLL or EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA</p>  <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p> <p>Ø80</p>	
<p>EPM-IT-80-6.8-0.8</p>  <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p> <p>Ø80</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.26 of European Technical Assessment ETA-23/0651</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	

<p>EPM-T-IE-80-13,6-0.8 + KMT-15xLL or EPM-T-IE-80-13,6-0.8 + EPT-15xLL-PA</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>	<p>EPM-IE-80-6,8-0,8</p> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p> <p>ERWS-50xLL-0-T25-15C</p>
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex J.27 of European Technical Assessment ETA-23/0651</p>
<p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	

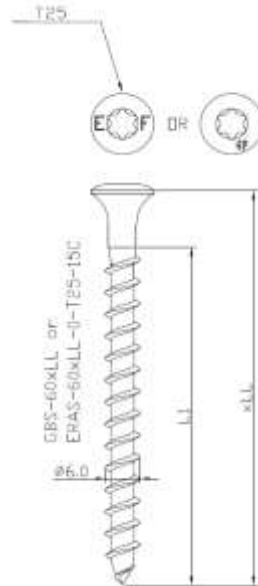


Eurofast Flat Roof Fasteners

EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)
ERWS-50xLL-0-T25-15C

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)				
	Autoclaved aerated concrete AAC 600 kg/m ³	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,0 mm)	Concrete C25/30 (drill 5,0 mm)
t [mm]	-	-	-	-
GBS-60xLL (ERAS-60xLL-0-T25-15C)	1,37	1,42	1,83	2,00

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)								
	OSB/3				Chipboard	Plywood		Timber C24
t [mm]	16	18	21	25	19	18	21	24
GBS-60xLL (ERAS-60xLL-0-T25-15C)	1,08	1,26	1,50	1,43	1,51	1,34	1,46	1,95

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)		
	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	-	EPM-IT-80-6.8-0.8
	-	EPM-IE-80-6.8-0.8
GBS-60xLL (ERAS-60xLL-0-T25-15C)	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
GBS-60xLL (ERAS-60xLL-0-T25-15C)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7007H (EPM-70H-6.0-0.7)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-7007N (EPM-70N-6.0-0.7)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
GBS-60xLL (ERAS-60xLL-0-T25-15C)	5,05	4,43	3,89	2,96	2,91

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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Screw:

GBS-60xLL (ERAS-60xLL-0-T25-15C)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7007N	(EPM-70N-6.0-0.7)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Autoclaved aerated concrete	AAC 600 kg/m ³	EN 12602
Concrete	C12/15, C20/25, C25/30	EN 206
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

Installation data:

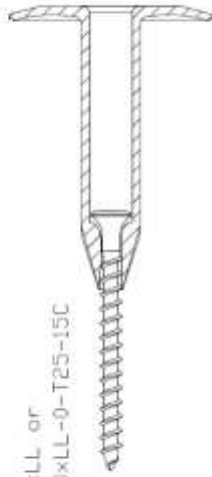
Head type:	Raised Bugle Head
Recess:	TX25
Effective anchoring depth on autoclaved aerated concrete substrate h_{ef} :	$\geq 60 \text{ mm}$
Effective anchoring depth on concrete substrate h_{ef} :	$\geq 30 \text{ mm}$
Concrete drill diameter:	5,0 mm
Drilled hole depth in concrete:	$h_{ef} + 10 \text{ mm}$
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in autoclaved aerated concrete substrate:	15 kg
Installation tool speed in autoclaved aerated concrete substrate:	1000 rpm
Installation force of installation tool in concrete substrate:	15 kg + impact
Installation tool speed in concrete substrate:	100 rpm
Installation force of installation tool in wooden and wood-based substrate:	30 kg
Installation tool speed in wooden and wood-based substrate:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

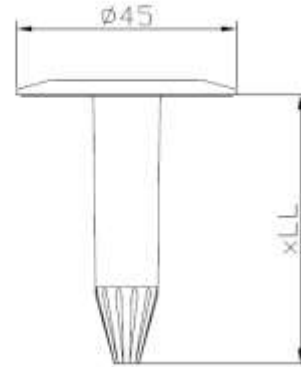
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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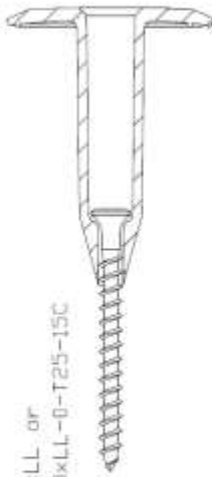
BIO-45xLL or EPT-45xLL-BIO



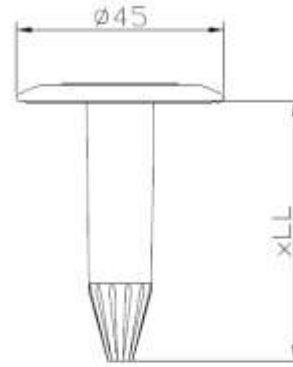
GBS-60xLL or
ERAS-60xLL-0-T25-15C



TRP-45xLL or EPT-45xLL-PA



GBS-60xLL or
ERAS-60xLL-0-T25-15C

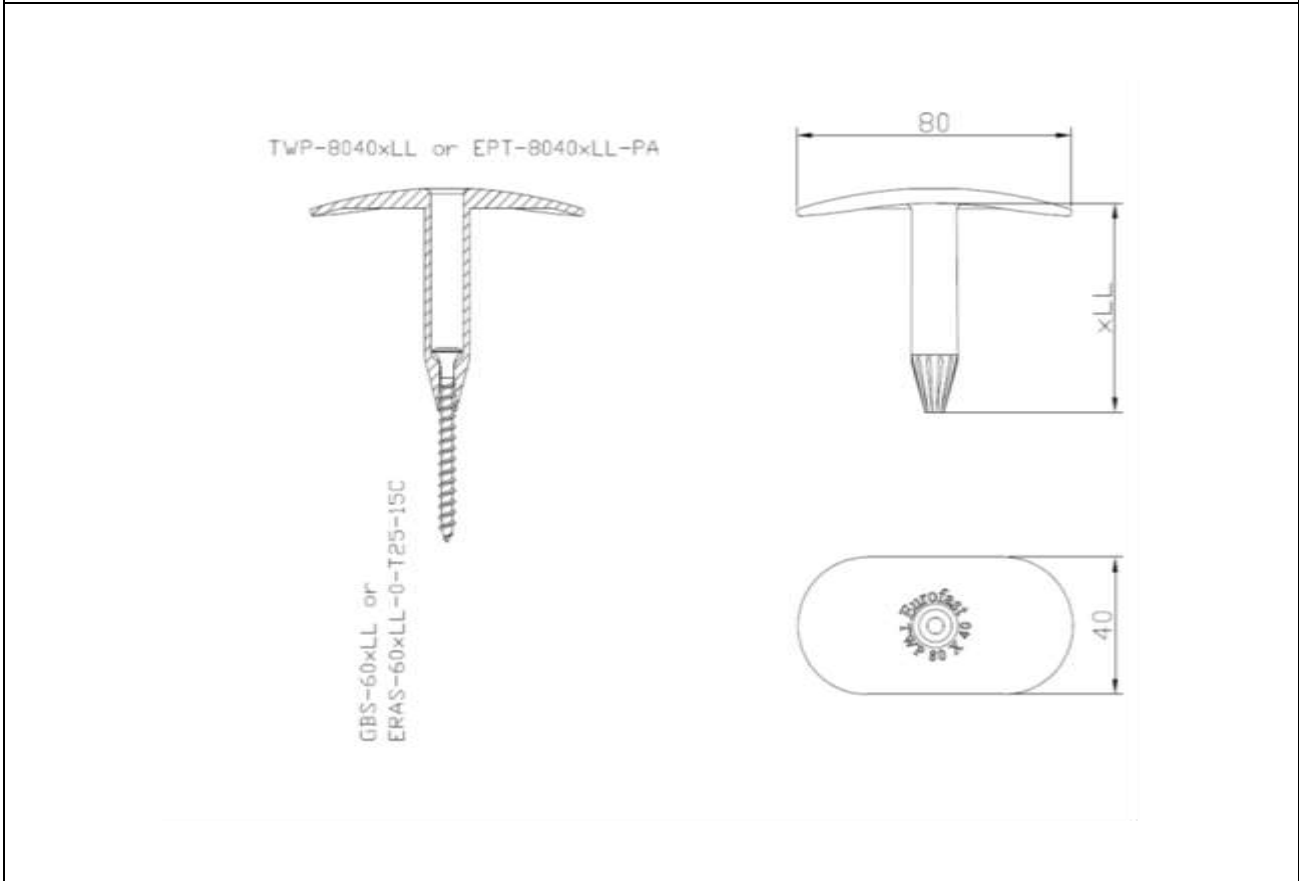
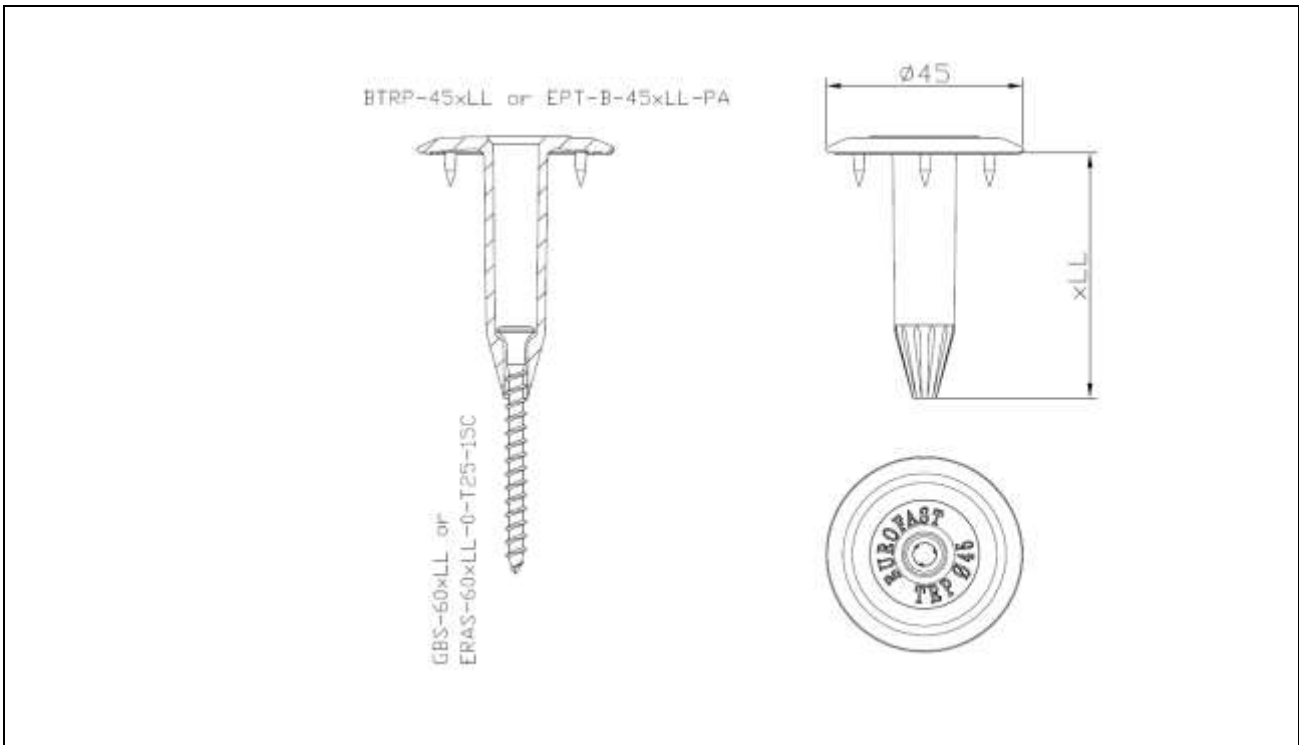


Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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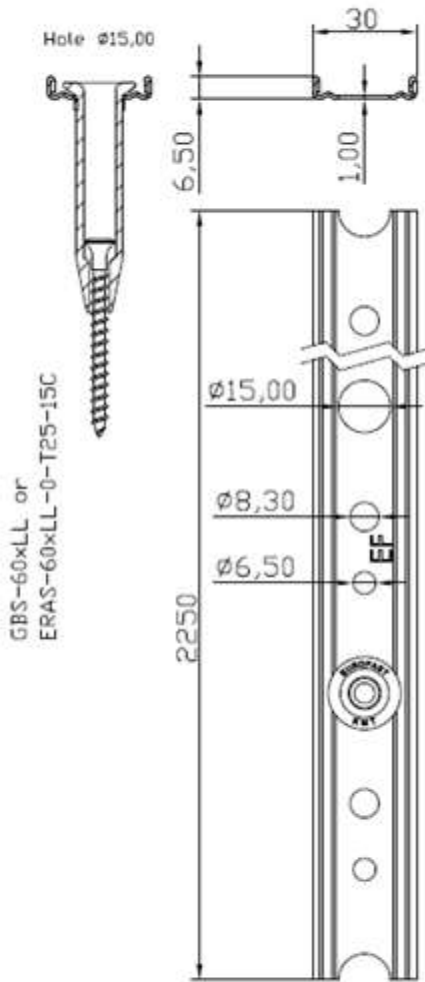
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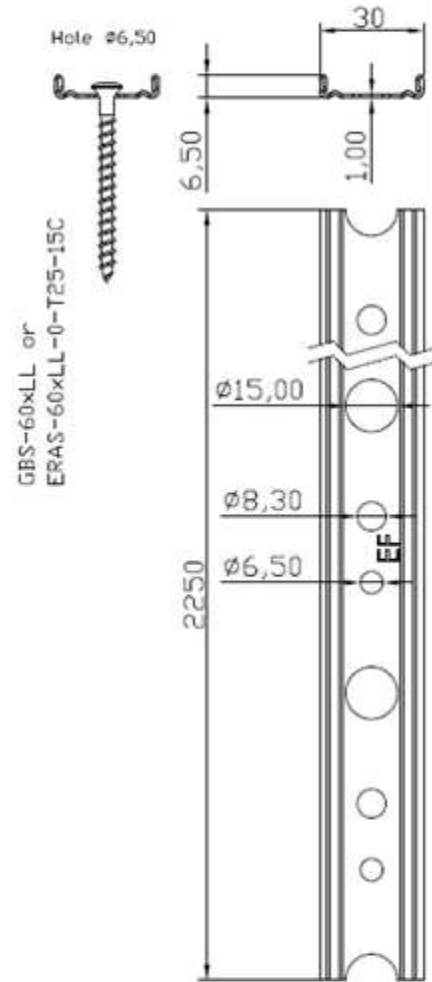
Eurofast Flat Roof Fasteners
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA



EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0

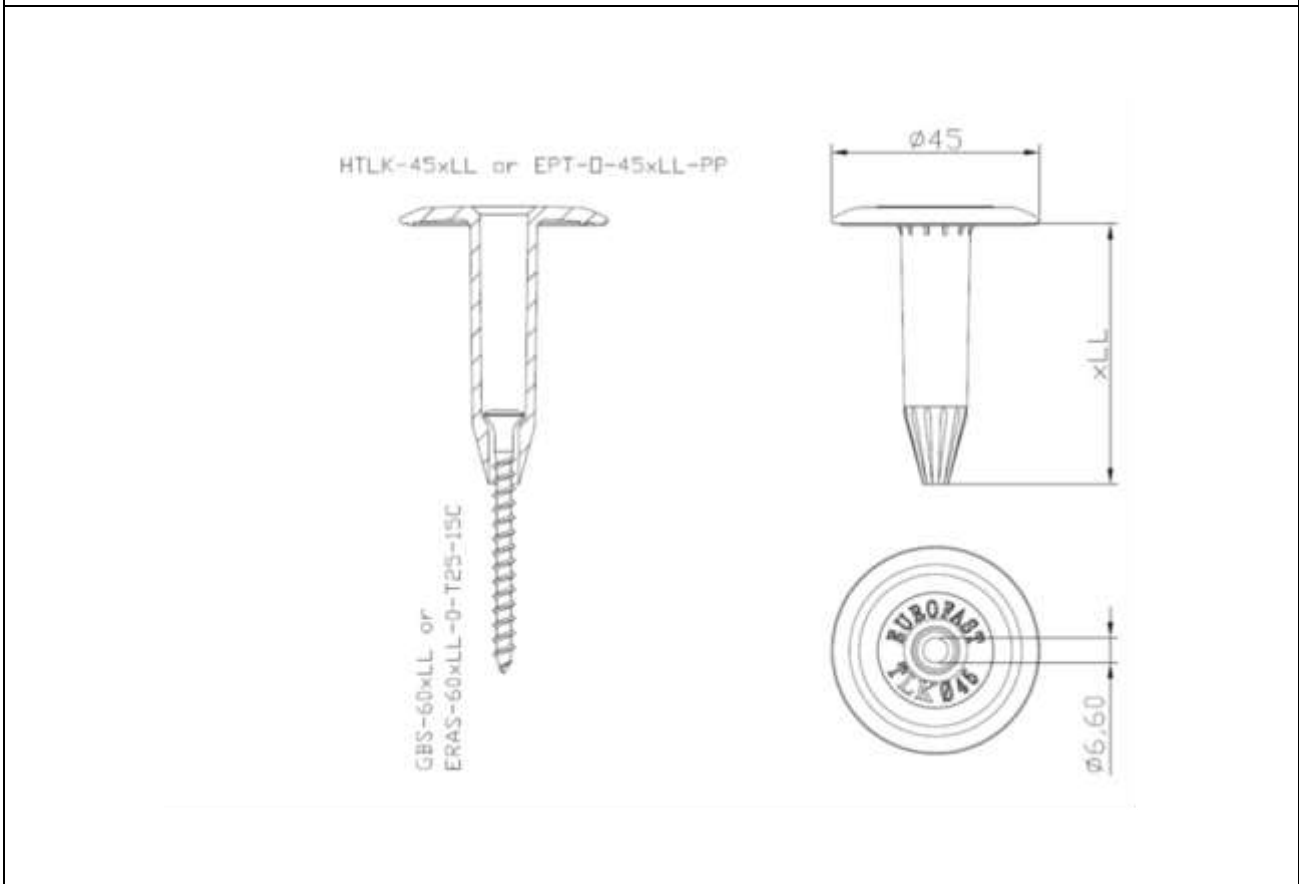
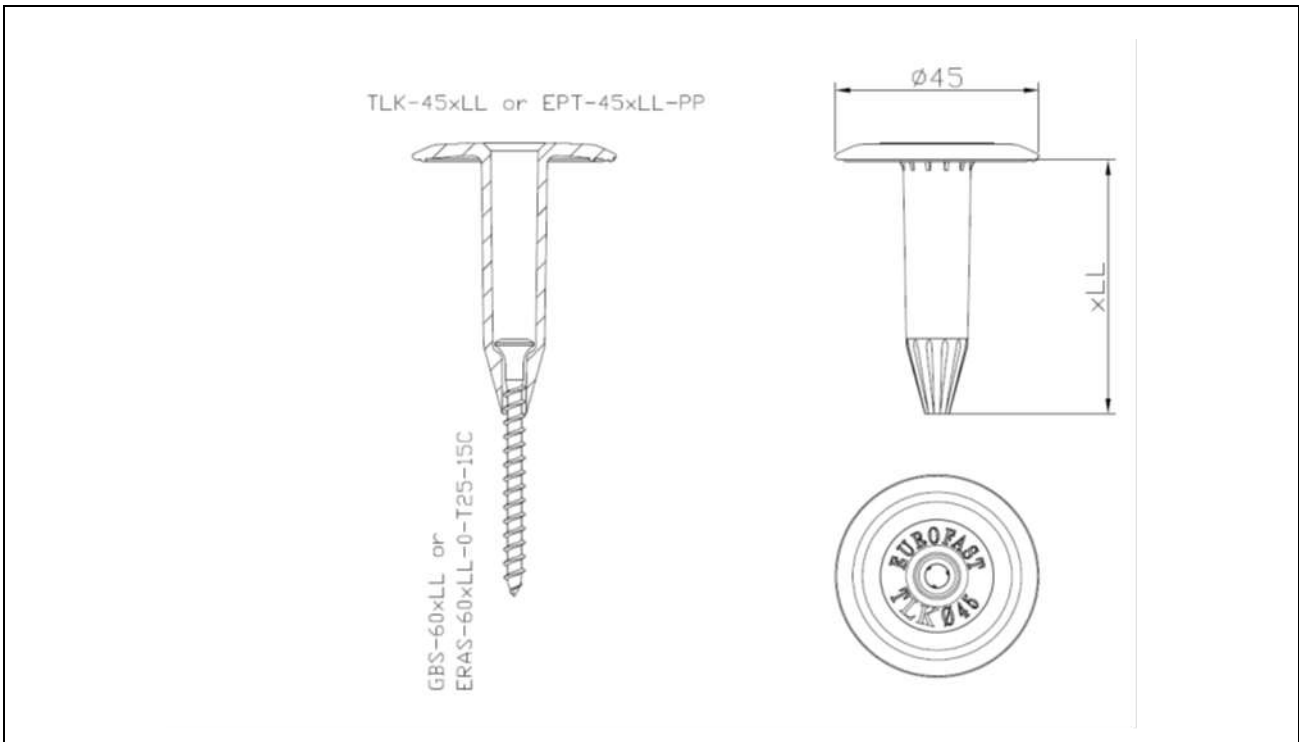


Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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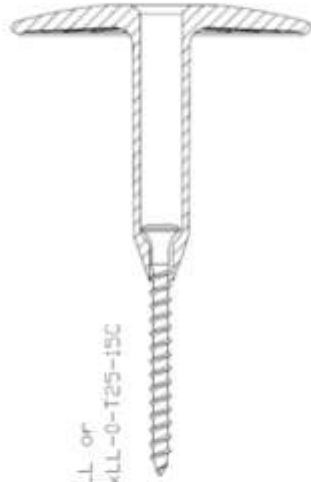
Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

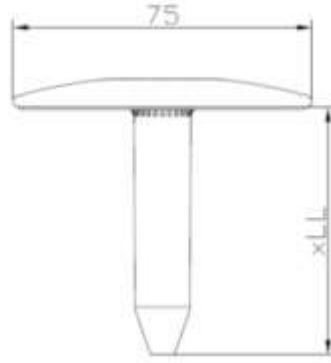
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TLK-75xLL or EPT-75xLL-PP



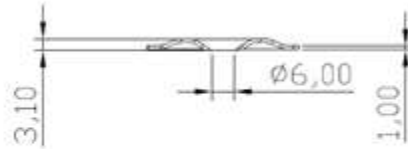
GBS-60xLL or
ERAS-60xLL-0-T25-15C



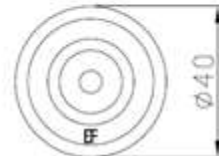
DVP-EF-4010N or EPM-40N-6.0-1.0



GBS-60xLL or
ERAS-60xLL-0-T25-15C



ØR



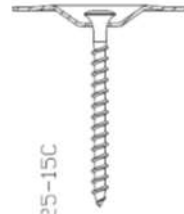
Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

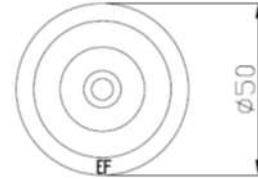
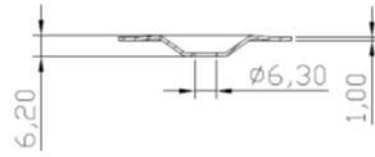
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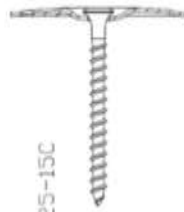
DVP-EF-5010D or EPM-50D-6.3-1.0



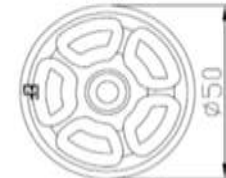
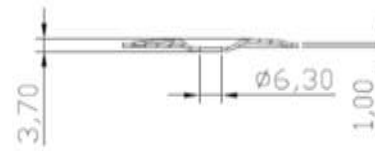
GBS-60xLL or
ERAS-60xLL-0-T25-15C



DVP-EF-5010N or EPM-50N-6.3-1.0



GBS-60xLL or
ERAS-60xLL-0-T25-15C



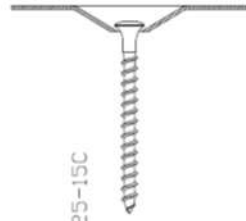
Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

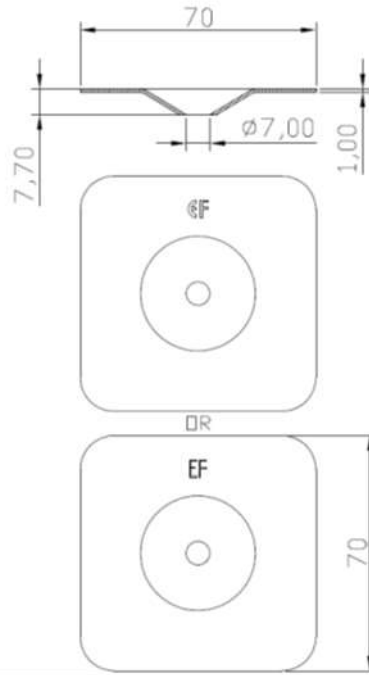
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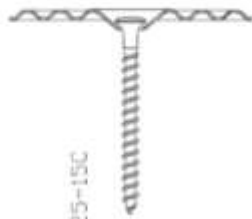
DVP-DF-7070D or EPM-7070D-7.0-1.0



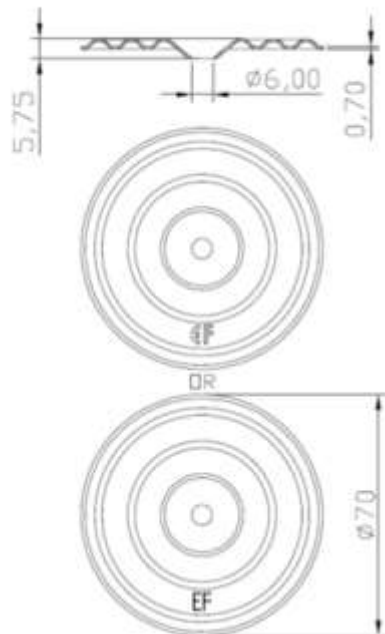
GBS-60xLL or
ERAS-60xLL-0-T25-15C



DVP-EF-7007D or EPM-70D-6.0-0.7



GBS-60xLL or
ERAS-60xLL-0-T25-15C

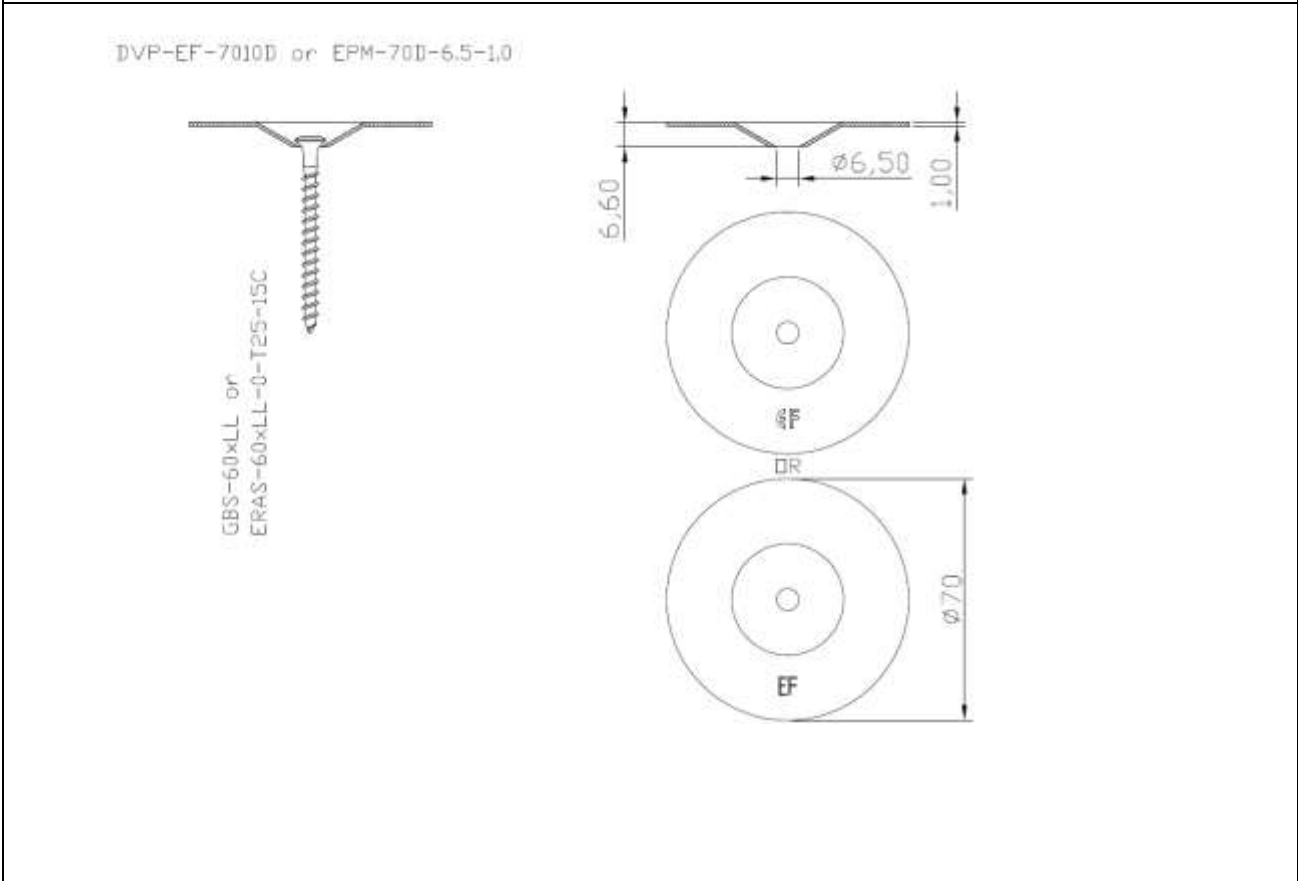
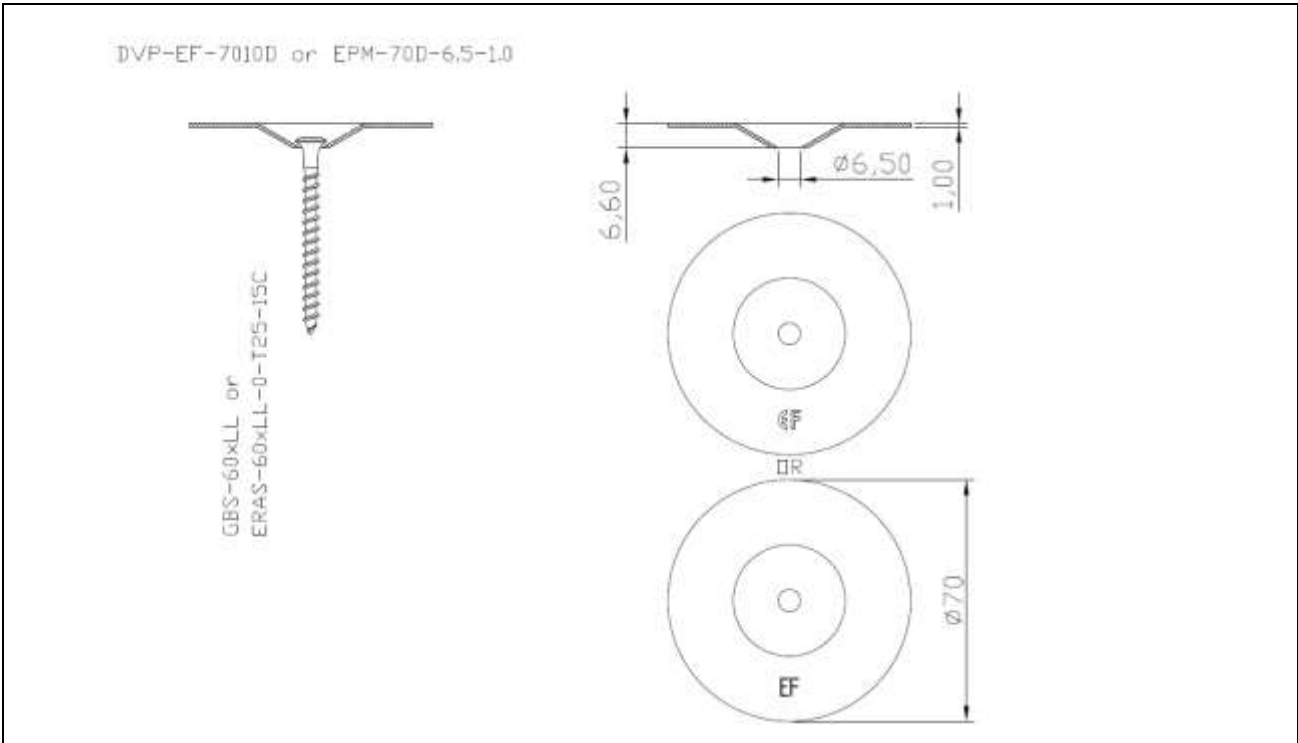


Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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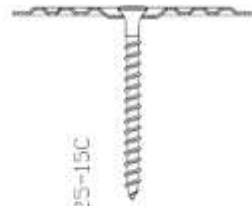
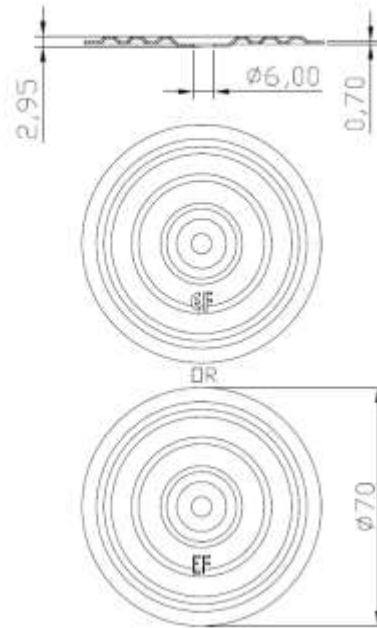


Eurofast Flat Roof Fasteners

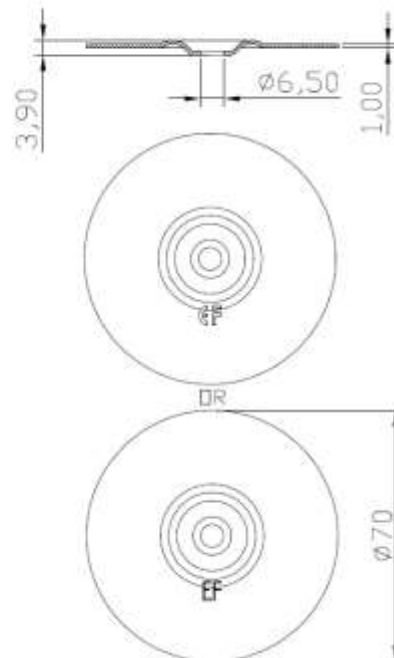
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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DVP-EF-7007N or EPM-70N-6.0-0.7


 GBS-60xLL or
ERAS-60xLL-0-T25-15C


DVP-EF-7010N or EPM-70N-6.5-1.0


 GBS-60xLL or
ERAS-60xLL-0-T25-15C

Eurofast Flat Roof Fasteners

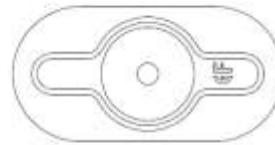
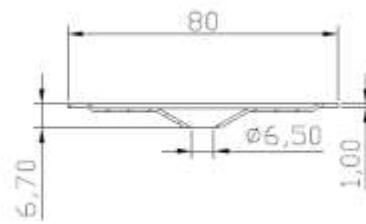
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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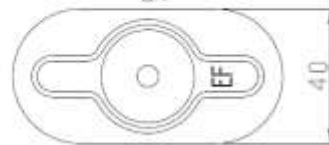
DVP-EF-8040D or EPM-8040D-6.5-1.0



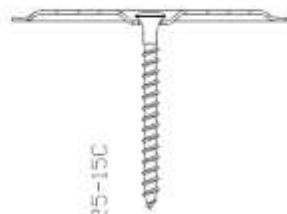
GBS-60xLL or
ERAS-60xLL-0-T25-15C



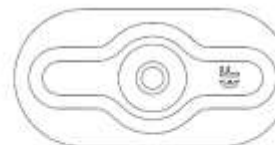
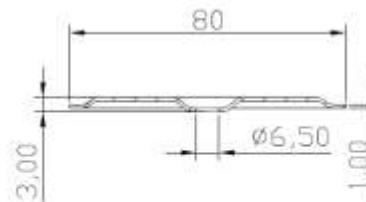
DR



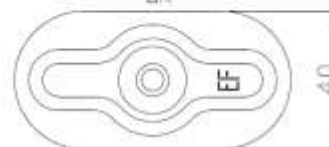
DVP-EF-8040N or EPM-8040N-6.5-1.0



GBS-60xLL or
ERAS-60xLL-0-T25-15C



DR

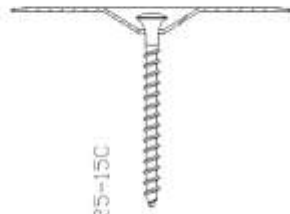


Eurofast Flat Roof Fasteners

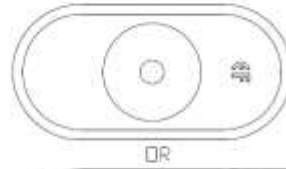
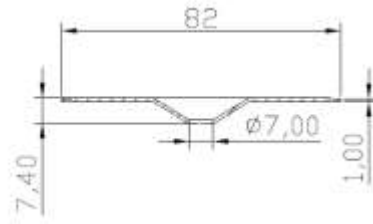
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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DVP-DF-8240D or EPM-8240D-7.00-1.0



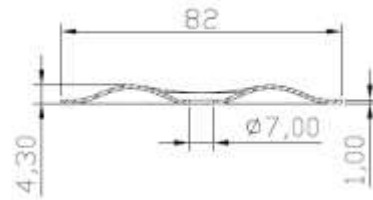
GBS-60xLL or
ERAS-60xLL-0-T25-15C



DVP-DF-8240H or EPM-8240H-7.00-1.0



GBS-60xLL or
ERAS-60xLL-0-T25-15C

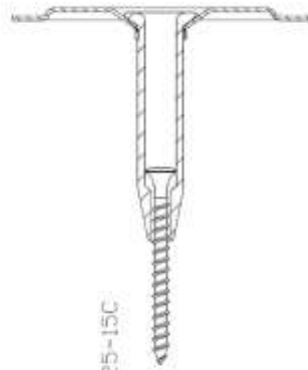


Eurofast Flat Roof Fasteners

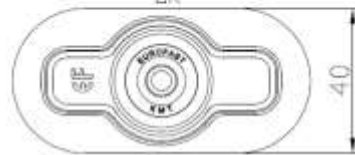
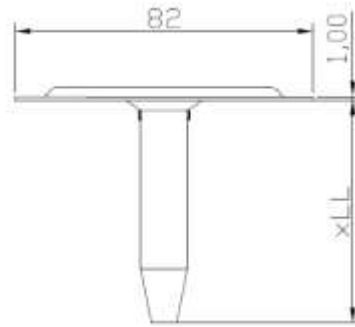
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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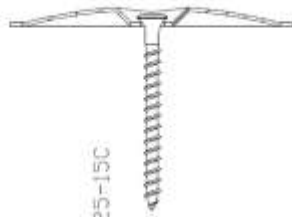
DVP-KMT-8240 + KMT-15xLL or
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



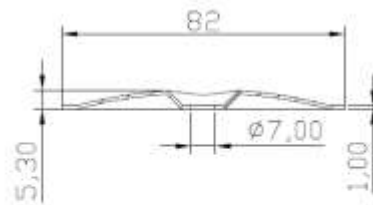
GBS-60xLL or
ERAS-60xLL-0-T25-15C



DVP-DF-8240XH or EPM-8240XH-7.0-1.0



GBS-60xLL or
ERAS-60xLL-0-T25-15C

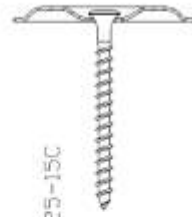


Eurofast Flat Roof Fasteners

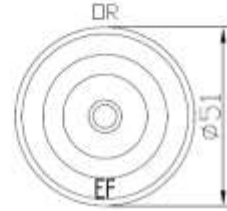
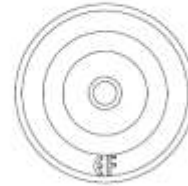
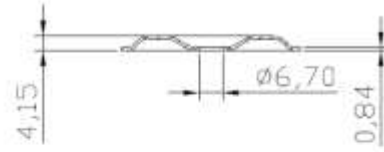
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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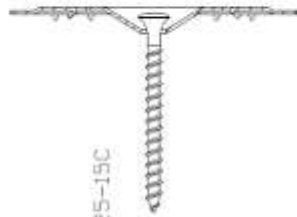
DVP-EF-51N or EPM-51N-6,7-0,84



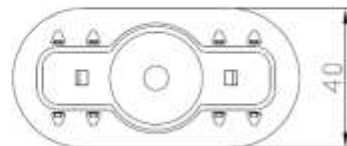
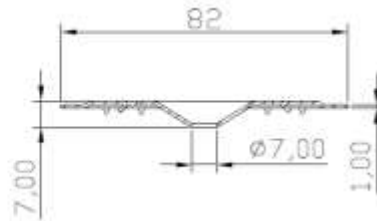
GBS-60xLL or
ERAS-60xLL-0-T25-15C



IVP-DFB-8240D or EPM-B-8240D-7,0-1,0



GBS-60xLL or
ERAS-60xLL-0-T25-15C

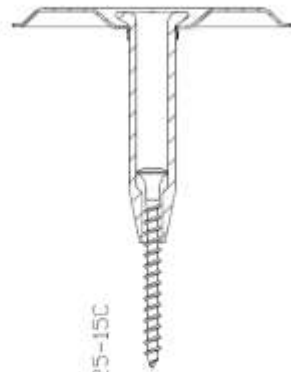


Eurofast Flat Roof Fasteners

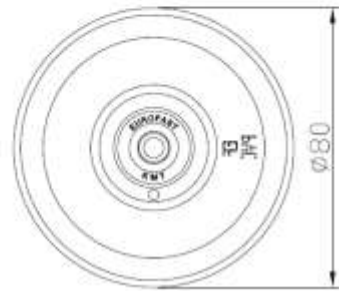
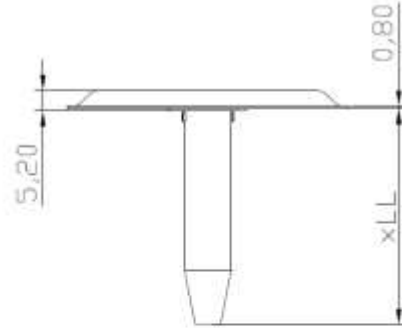
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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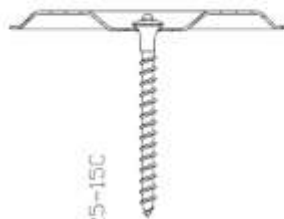
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or
EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



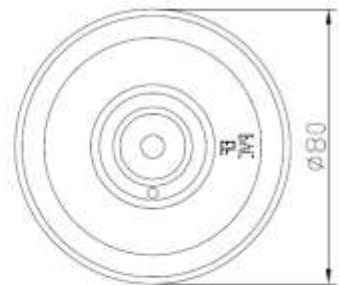
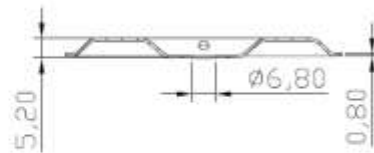
GBS-60xLL or
ERAS-60xLL-0-T25-15C



EPM-IP-80-6.8-0.8



GBS-60xLL or
ERAS-60xLL-0-T25-15C

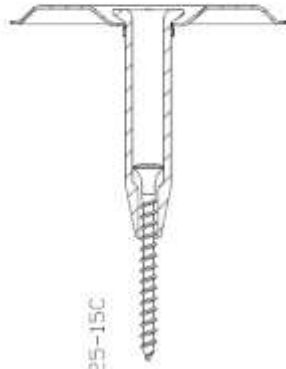


Eurofast Flat Roof Fasteners

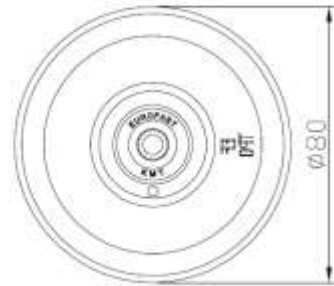
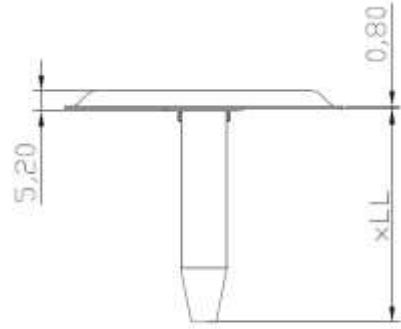
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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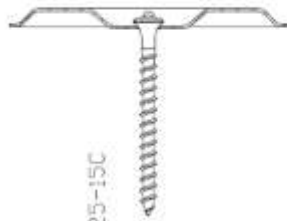
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or
EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



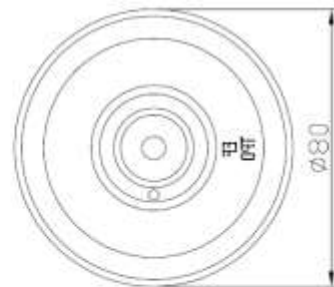
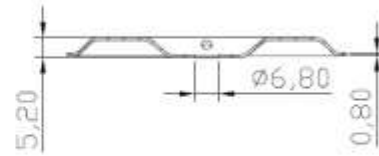
GBS-60xLL or
ERAS-60xLL-0-T25-15C



EPM-IT-80-6.8-0.8



GBS-60xLL or
ERAS-60xLL-0-T25-15C

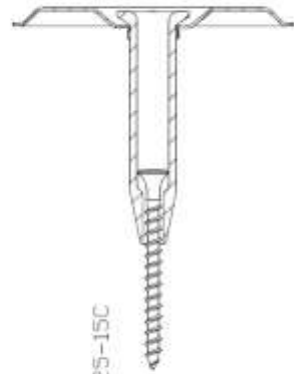


Eurofast Flat Roof Fasteners

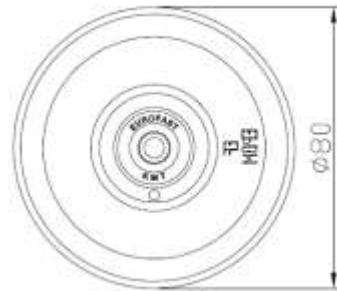
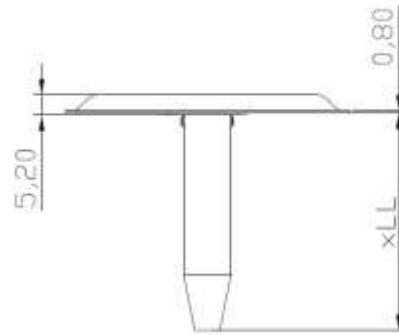
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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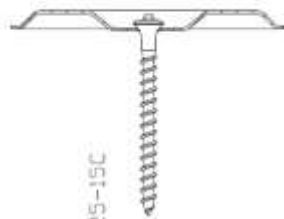
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or
EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



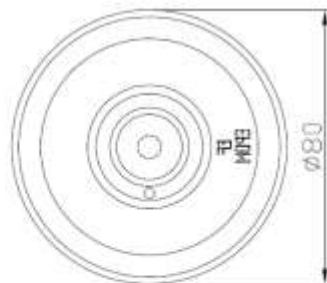
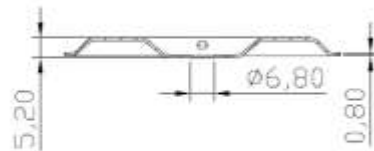
GBS-60xLL or
ERAS-60xLL-0-T25-15C



EPM-IE-80-6.8-0.8



GBS-60xLL or
ERAS-60xLL-0-T25-15C

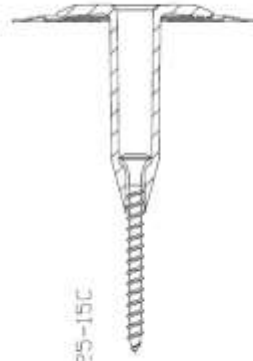


Eurofast Flat Roof Fasteners

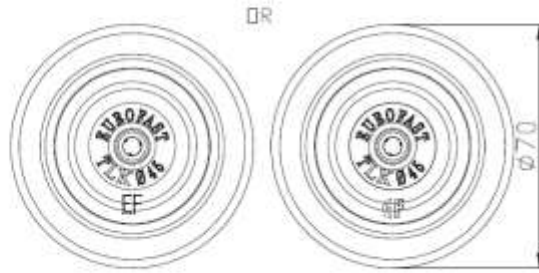
GBS-60xLL (ERAS-60xLL-0-T25-15C)

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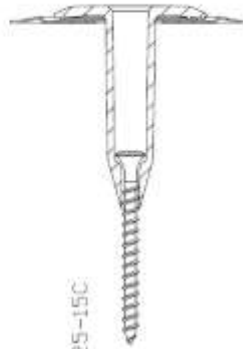
DVP-DL-70N + TLK-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



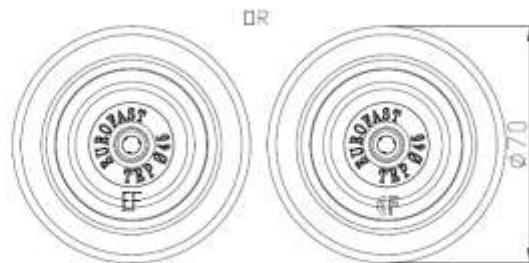
GBS-60xLL or
ERAS-60xLL-0-T25-15C



DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



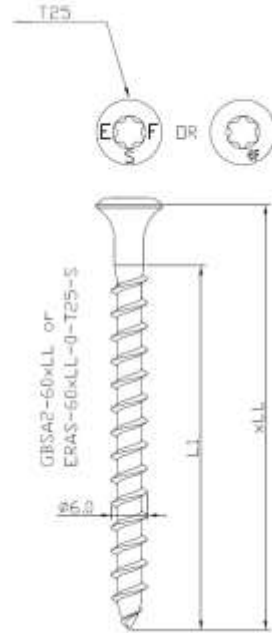
GBS-60xLL or
ERAS-60xLL-0-T25-15C



Eurofast Flat Roof Fasteners

GBS-60xLL (ERAS-60xLL-0-T25-15C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)									
	Autoclaved aerated concrete AAC 600 kg/m ³	OSB/3				Chipboard	Plywood		Timber C24
t [mm]	-	16	18	21	25	19	18	21	24
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	1,37	0,82	1,50	1,51	1,57	1,53	1,36	1,57	1,60

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)		
	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	-	EPM-IT-80-6.8-0.8
	-	EPM-IE-80-6.8-0.8
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7007H (EPM-70H-6.0-0.7)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-7007N (EPM-70N-6.0-0.7)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	5,05	4,43	3,89	2,96	2,91

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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**Screw:**

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7007N	(EPM-70N-6.0-0.7)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Autoclaved aerated concrete	AAC 600 kg/m ³	EN 12602
Concrete	C12/15, C20/25, C25/30	EN 206
OSB/3	$\rho_{min} = 550 \text{ kg/m}^3$	EN 12369-1
Chipboard	$\rho_{min} = 600 \text{ kg/m}^3$	EN 12369-1
Plywood	$\rho_{min} = 400 \text{ kg/m}^3$	EN 12369-2
Timber, class \geq C24	$\rho_{min} = 350 \text{ kg/m}^3$	EN 338

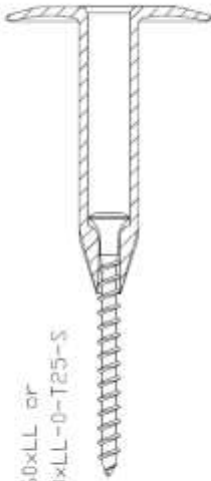
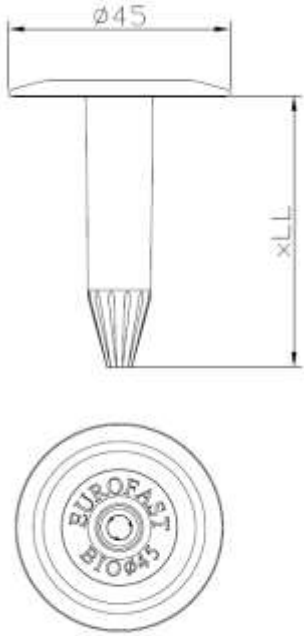
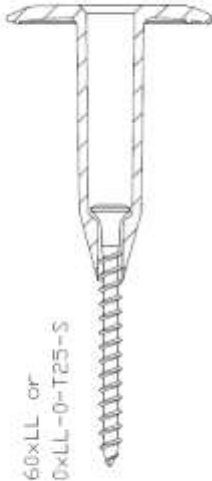
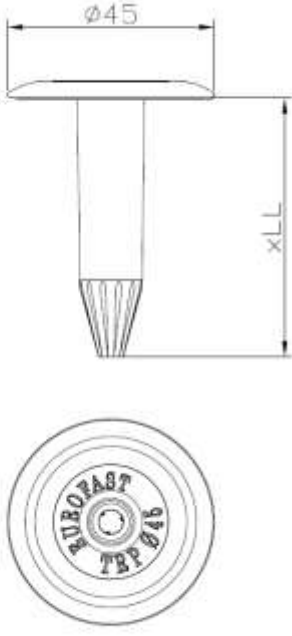
Installation data:

Head type:	Raised Bugle Head
Recess:	TX25
Effective anchoring depth in autoclaved aerated concrete substrate h_{ef} :	$\geq 60 \text{ mm}$
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in autoclaved aerated concrete substrate:	15 kg
Installation tool speed in autoclaved aerated concrete substrate:	1000 rpm
Installation force of installation tool in wooden and wood-based substrate:	30 kg
Installation tool speed in wooden and wood-based substrate:	2000 - 2500 rpm

Eurofast Flat Roof Fasteners

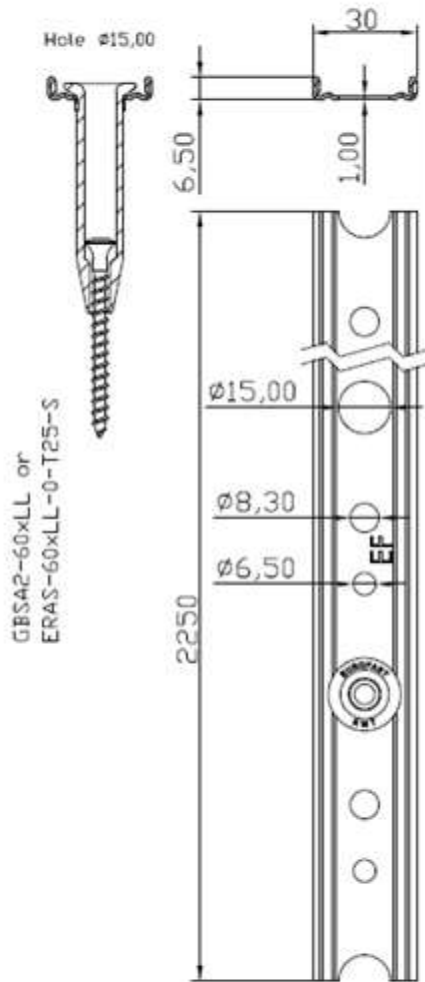
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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<p>BID-45xLL or EPT-45xLL-BID</p>  <p>GBSA2-60xLL or ERAS-60xLL-0-T25-S</p>	
<p>TRP-45xLL or EPT-45xLL-PA</p>  <p>GBSA2-60xLL or ERAS-60xLL-0-T25-S</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex L.4 of European Technical Assessment ETA-23/0651</p>
<p>GBSA2-60xLL (ERAS-60xLL-0-T25-S)</p>	

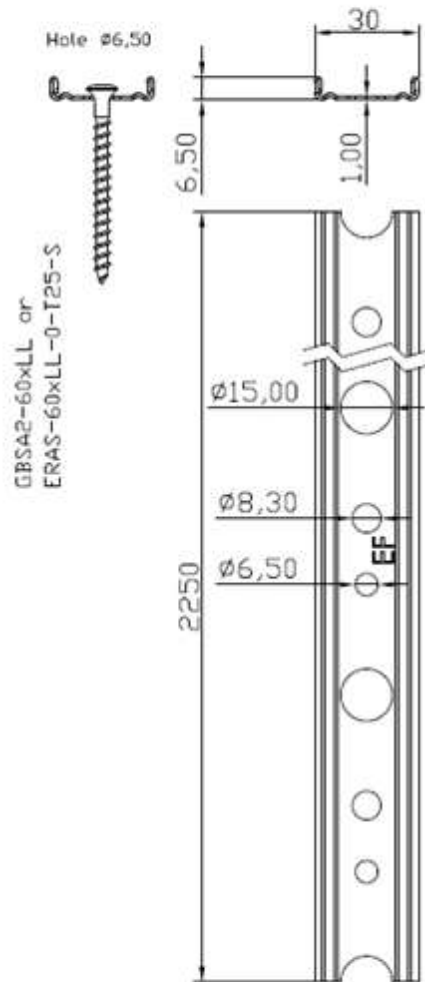
<p>BTRP-45xLL or EPT-B-45xLL-PA</p> <p>GBSA2-60xLL or ERAS-60xLL-0-T25-S</p>	
<p>TWP-8040xLL or EPT-B040xLL-PA</p> <p>GBSA2-60xLL or ERAS-60xLL-0-T25-S</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex L.5 of European Technical Assessment ETA-23/0651</p>
<p>GBSA2-60xLL (ERAS-60xLL-0-T25-S)</p>	

EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

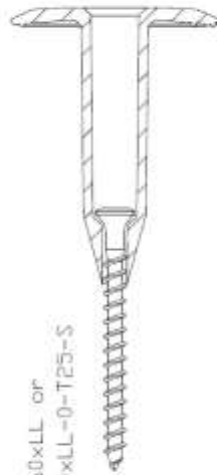
Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

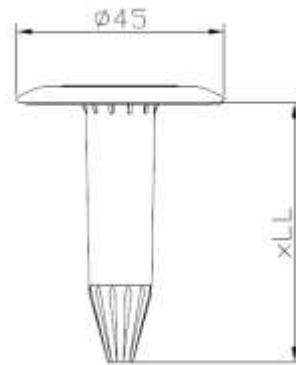
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of European
Technical Assessment
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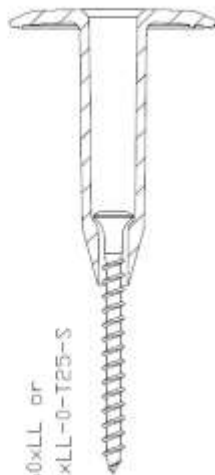
TLK-45xLL or EPT-45xLL-PP



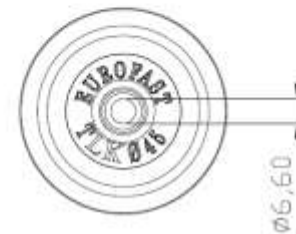
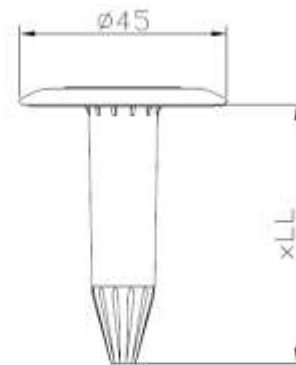
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



HTLK-45xLL or EPT-Ø-45xLL-PP



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

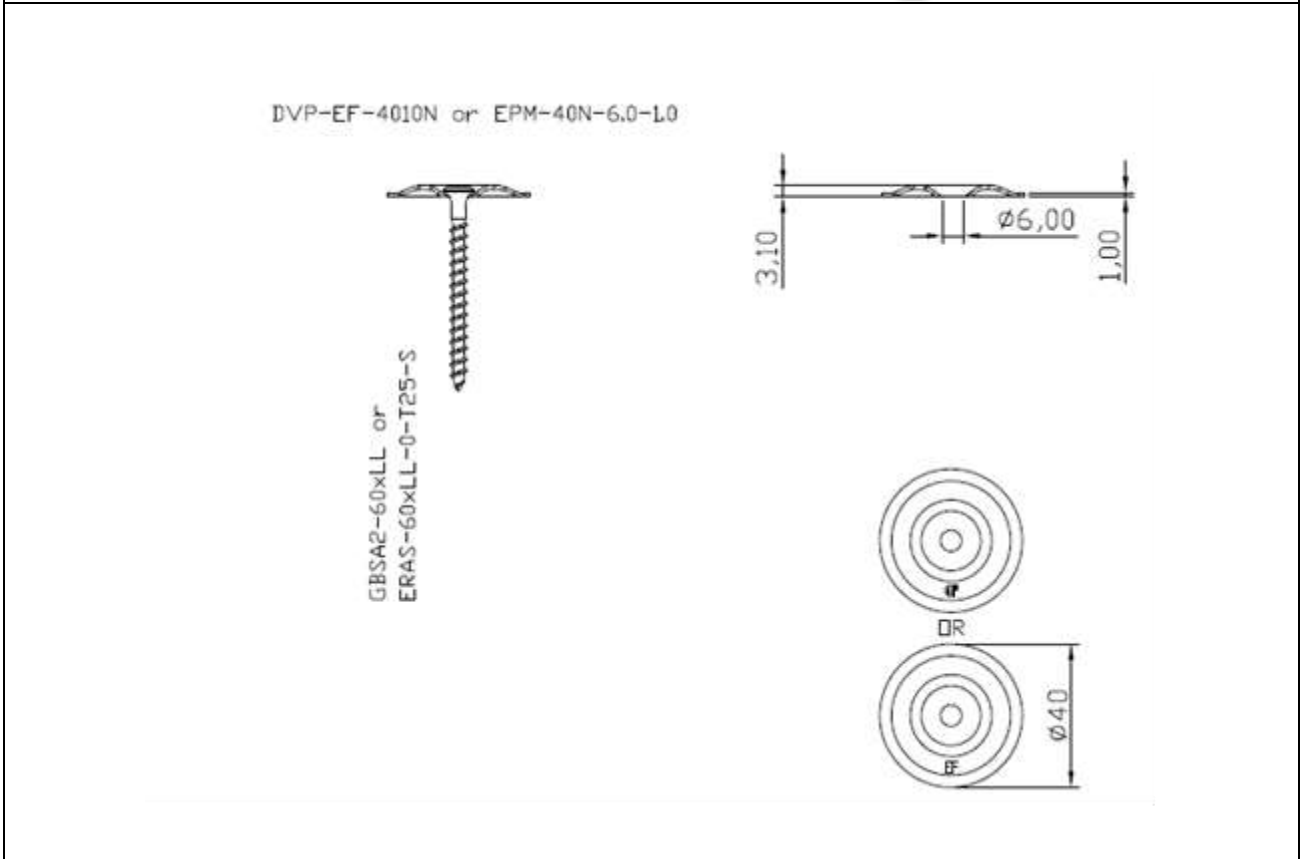
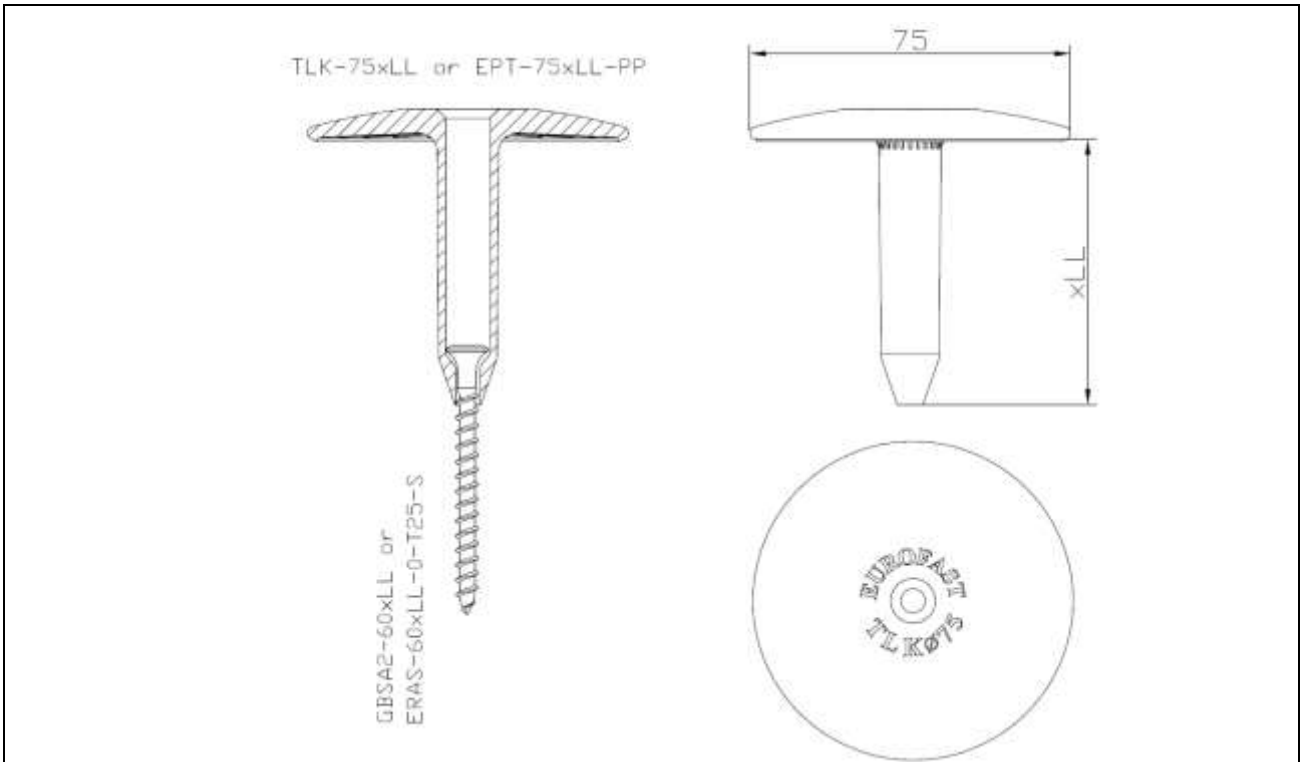


Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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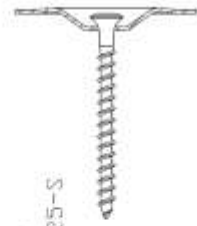
Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

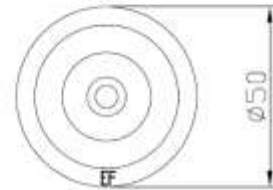
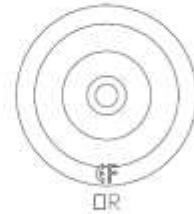
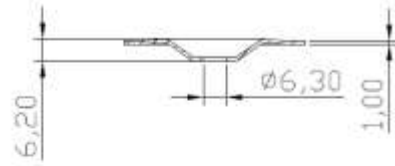
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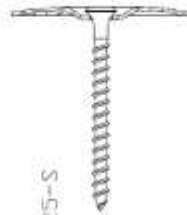
DVP-EF-5010D or EPM-50D-6.3-1.0



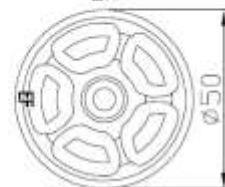
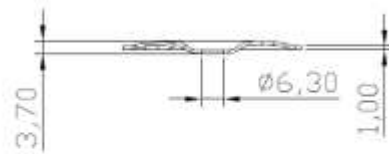
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



DVP-EF-5010N or EPM-50N-6.3-1.0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



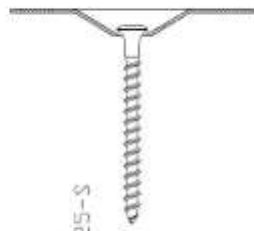
Eurofast Flat Roof Fasteners

GBSA2-60xLL (ERAS-60xLL-0-T25-S)

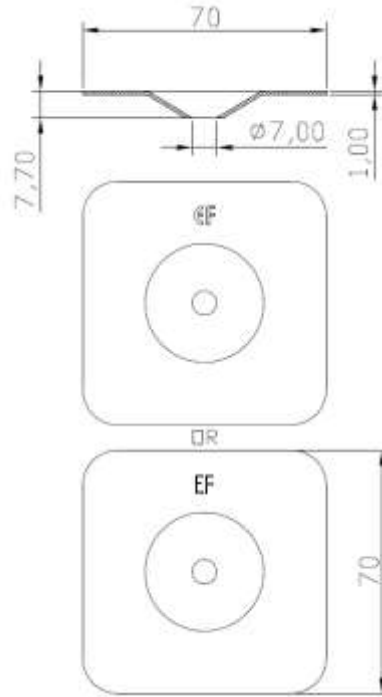
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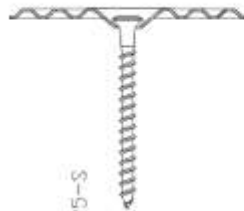
DVP-DF-7070D or EPM-7070D-7.0-1.0



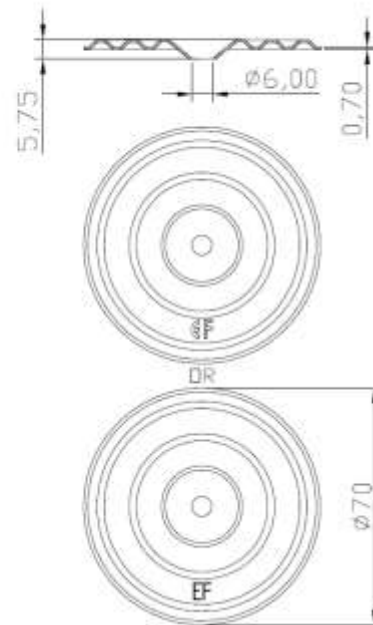
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



DVP-EF-7007D or EPM-70D-6.0-0.7



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



Eurofast Flat Roof Fasteners

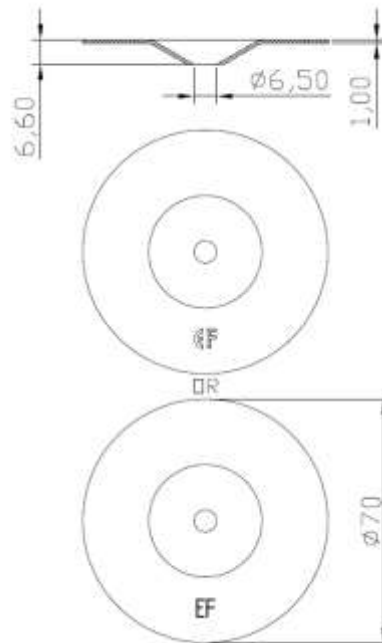
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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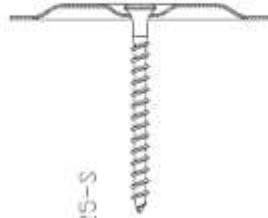
DVP-EF-7010D or EPM-70D-6.5-1.0



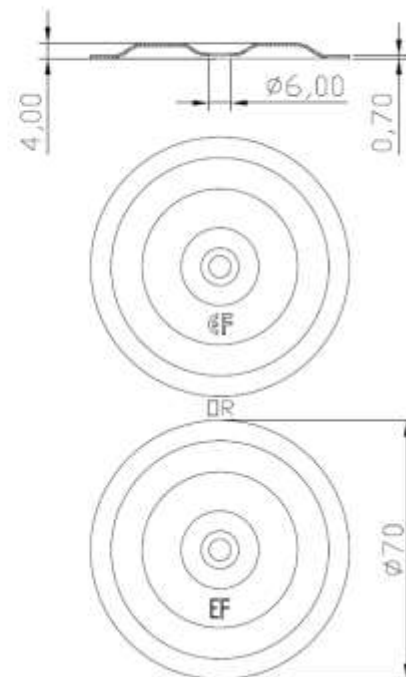
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



DVP-EF-7007H or EPM-70H-6.0-0.7



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

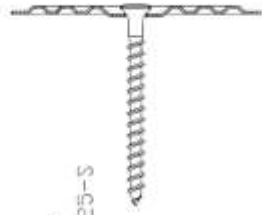


Eurofast Flat Roof Fasteners

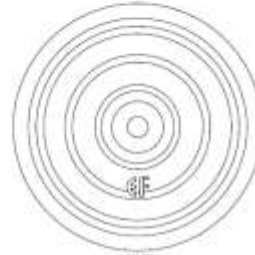
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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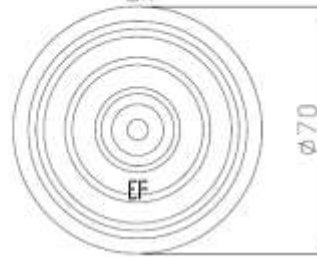
DVP-EF-7007N or EPM-70N-6.0-0.7



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



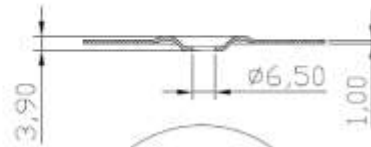
OR



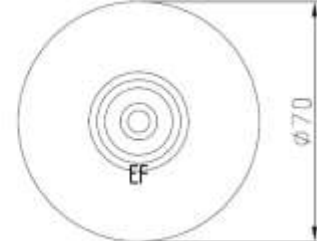
DVP-EF-7010N or EPM-70N-6.5-1.0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



OR

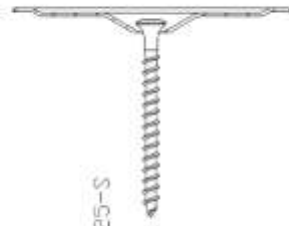


Eurofast Flat Roof Fasteners

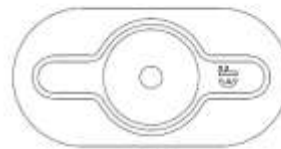
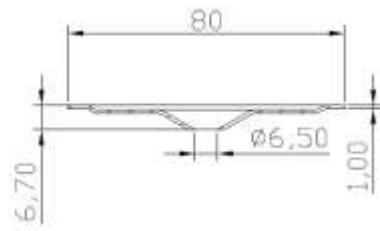
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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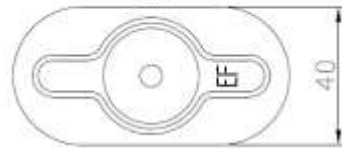
DVP-EF-8040D or EPM-8040D-6.5-1.0



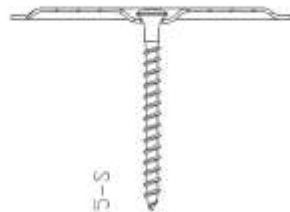
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



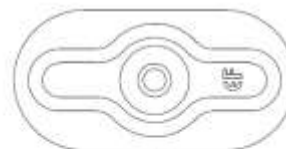
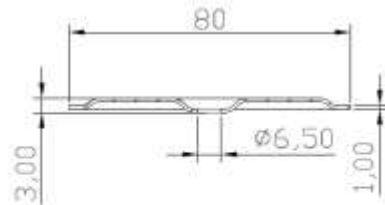
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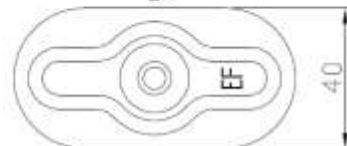
DVP-EF-8040N or EPM-8040N-6.5-1.0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



OR

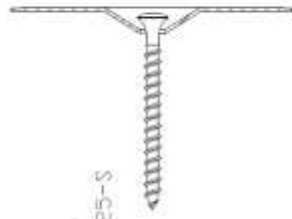


Eurofast Flat Roof Fasteners

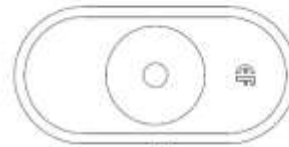
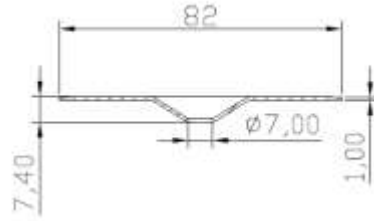
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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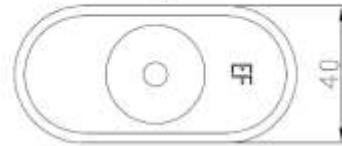
DVP-DF-8240D or EPM-8240D-7,00-1,0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



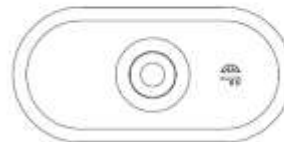
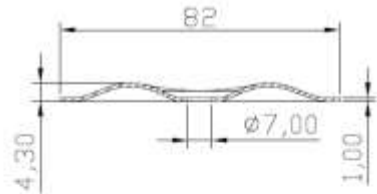
DR



DVP-DF-8240H or EPM-8240H-7,00-1,0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S



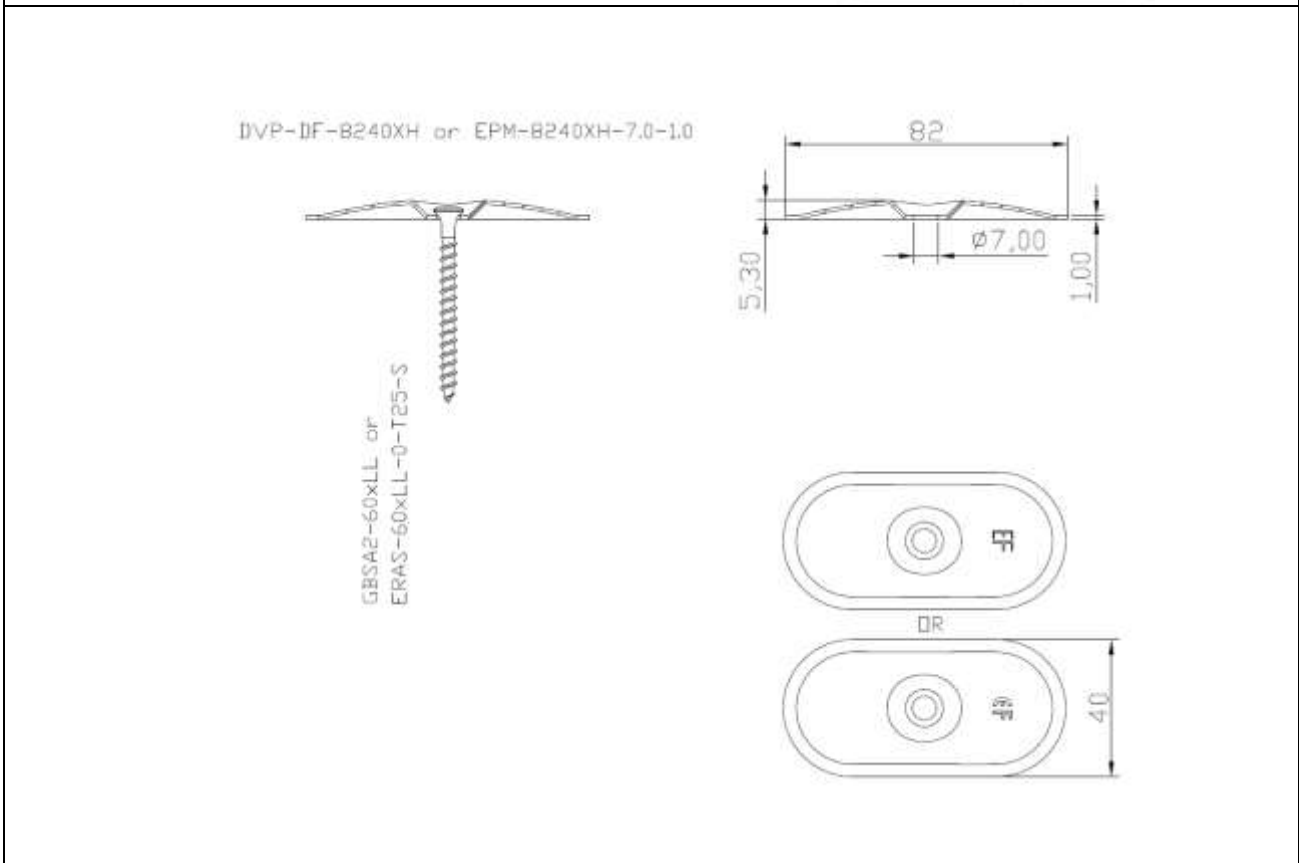
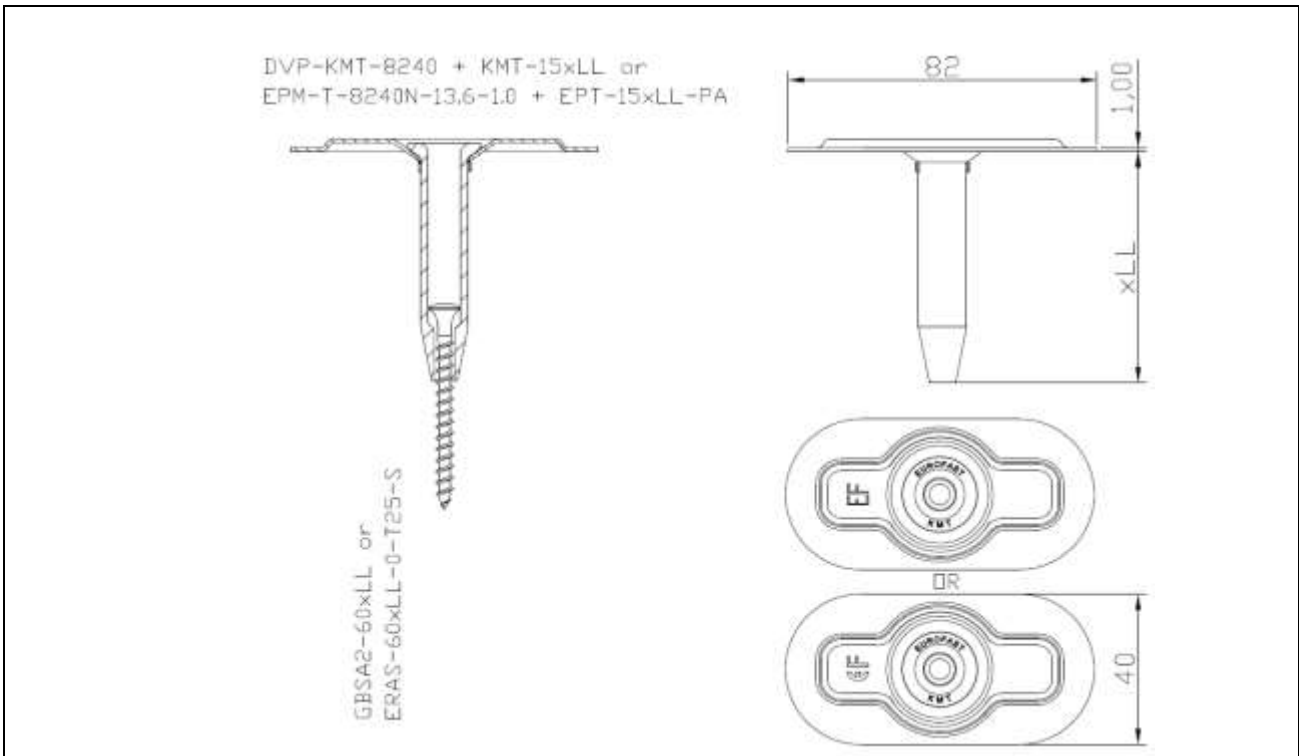
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GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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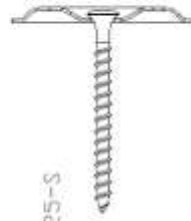


Eurofast Flat Roof Fasteners

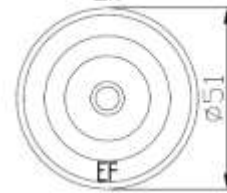
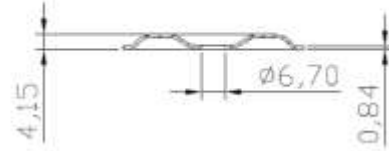
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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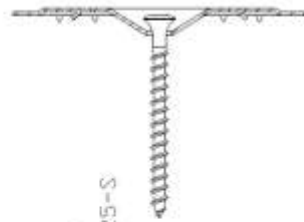
DVP-EF-51N or EPM-51N-6,7-0,84



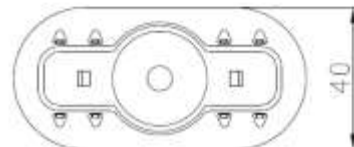
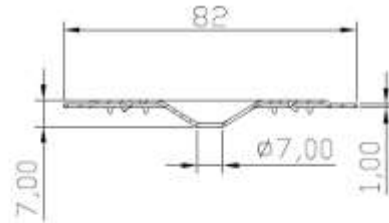
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



DVP-DFB-8240D or EPM-B-8240D-7,0-1,0



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

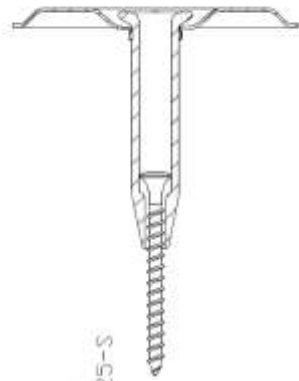


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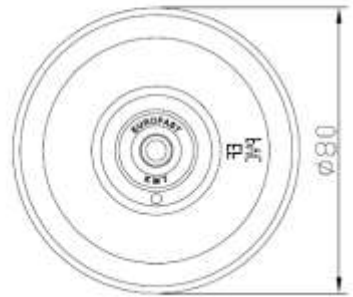
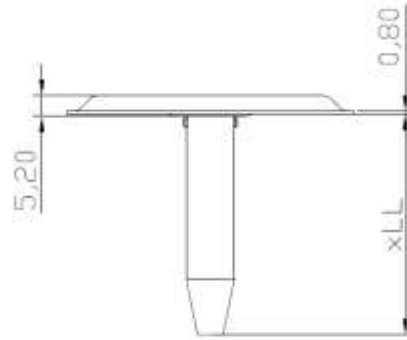
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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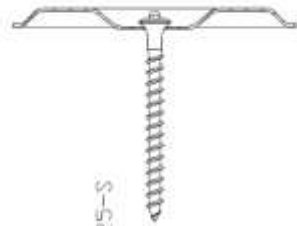
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or
EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



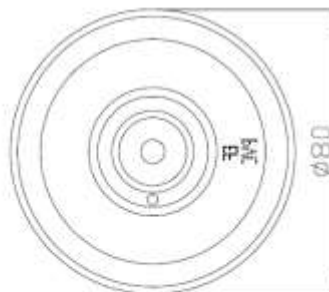
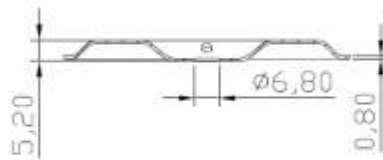
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



EPM-IP-80-6.8-0.8



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

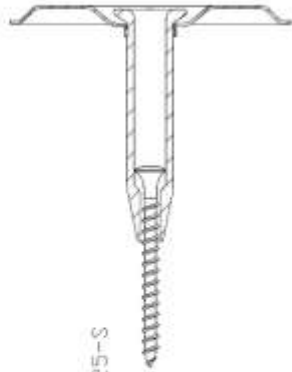


Eurofast Flat Roof Fasteners

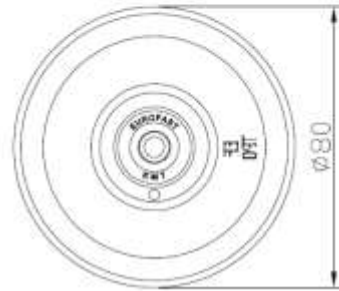
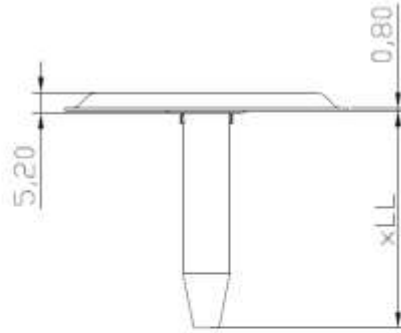
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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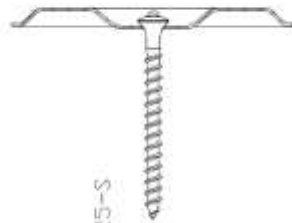
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or
EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



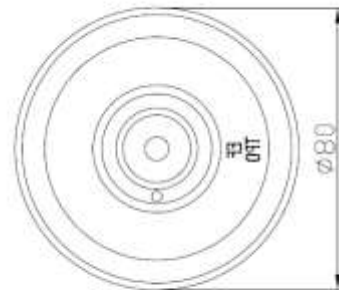
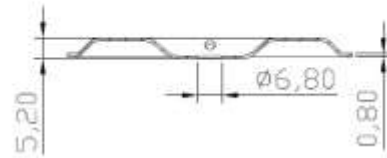
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



EPM-IT-80-6.8-0.8



GBSA2-60xLL or
ERAS-60xLL-0-T25-S

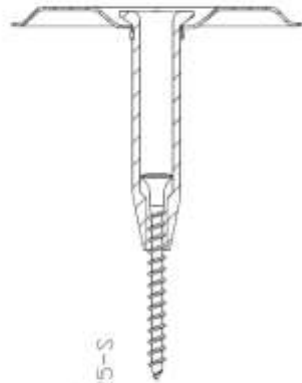


Eurofast Flat Roof Fasteners

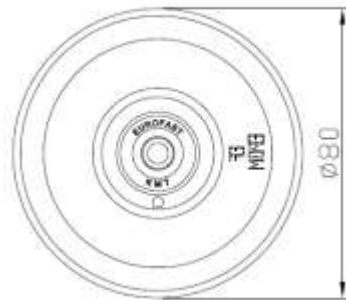
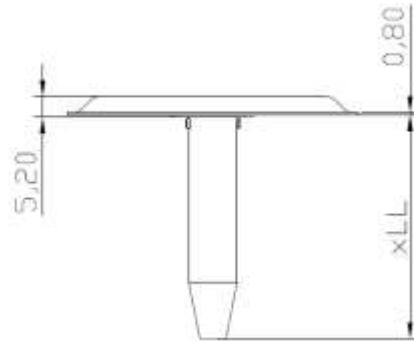
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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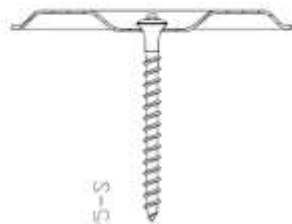
EPM-T-IE-80-13,6-0,8 + KMT-15xLL or
 EPM-T-IE-80-13,6-0,8 + EPT-15xLL-PA



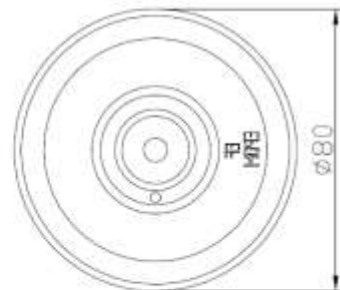
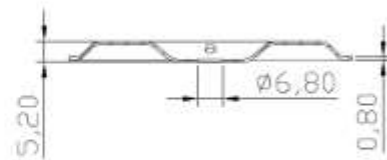
GBSA2-60xLL or
 ERAS-60xLL-0-T25-S



EPM-IE-80-6,8-0,8



GBSA2-60xLL or
 ERAS-60xLL-0-T25-S

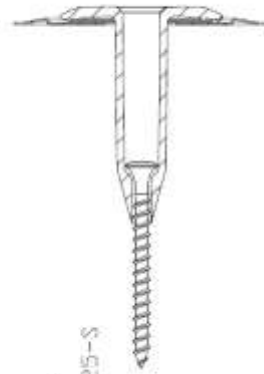


Eurofast Flat Roof Fasteners

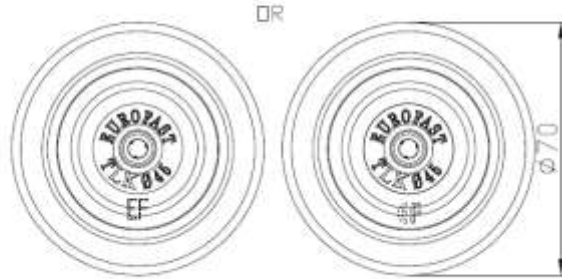
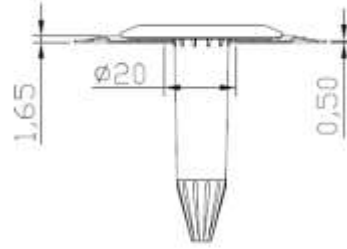
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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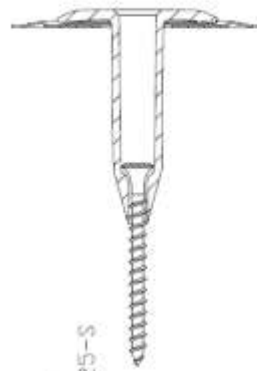
DVP-DL-70N + TLK-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



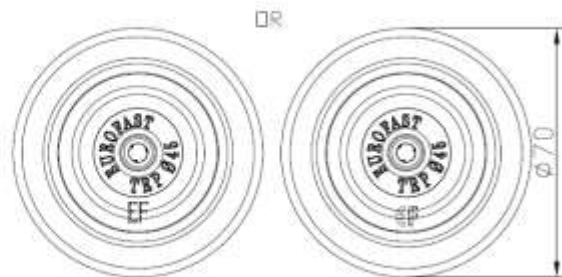
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



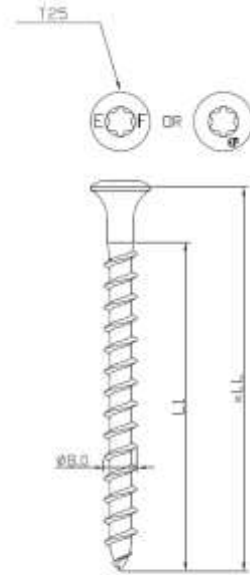
GBSA2-60xLL or
ERAS-60xLL-0-T25-S



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GBSA2-60xLL (ERAS-60xLL-0-T25-S)

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GBS-80xLL or
ERAS-80xLL-0-T25-15C

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)

	Autoclaved aerated concrete AAC 450 kg/m ³	Autoclaved aerated concrete AAC 550 kg/m ³	Concrete C12/15 (drill 6,0 mm)	Concrete C20/25 (drill 6,0 mm)	Chipboard
t [mm]	-	-	-	-	19
GBS-80xLL (ERAS-80xLL-0-T25-15C)	0,98	1,52	4,03	5,20	1,59

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)

	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-8040N-9 (EPM-8040N-9.0-1.0)	DVP-EF-51N (EPM-51N-6.7-0.84)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	-	EPM-IP-80-6.8-0.8
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-DF-8240H (EPM-8240H-7.0-1.0)	-	EPM-IT-80-6.8-0.8
	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-	EPM-IE-80-6.8-0.8
	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-	-
GBS-80xLL (ERAS-80xLL-0-T25-15C)	5,05	3,77	1,77	3,88

* "Pull-over" according to CEN/TS 17659:2021

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GBS-80xLL (ERAS-80xLL-0-T25-15C)

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Screw:
 GBS-80xLL (ERAS-80xLL-0-T25-15C)

Metal pressure plate:
 DVP-DF-7070D (EPM-7070D-7.0-1.0)
 DVP-EF-8040N-9 (EPM-8040N-9.0-1.0)
 DVP-DF-8240D (EPM-8240D-7.0-1.0)
 DVP-DF-8240H (EPM-8240H-7.0-1.0)
 DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
 DVP-EF-51N (EPM-51N-6.7-0.8)
 DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
 EPM-IP-80-6.8-0.8
 EPM-IT-80-6.8-0.8
 EPM-IE-80-6.8-0.8

Termination bar:
 EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
 EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
 EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Autoclaved aerated concrete	AAC 450 kg/m ³	EN 12602
Autoclaved aerated concrete	AAC 550 kg/m ³	EN 12602
Concrete	C12/15, C20/25	EN 206
Chipboard	$\rho_{min} = 600\text{kg/m}^3$	EN 12369-1

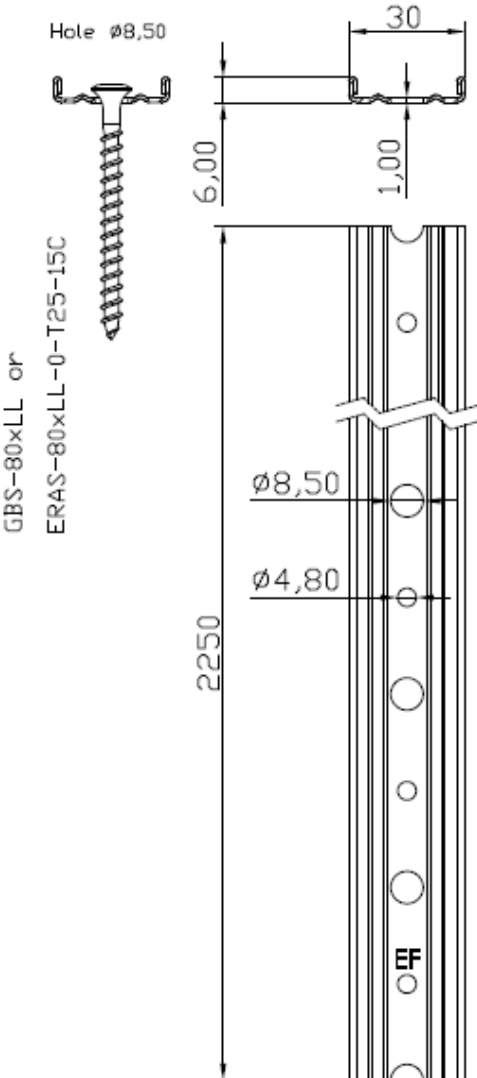
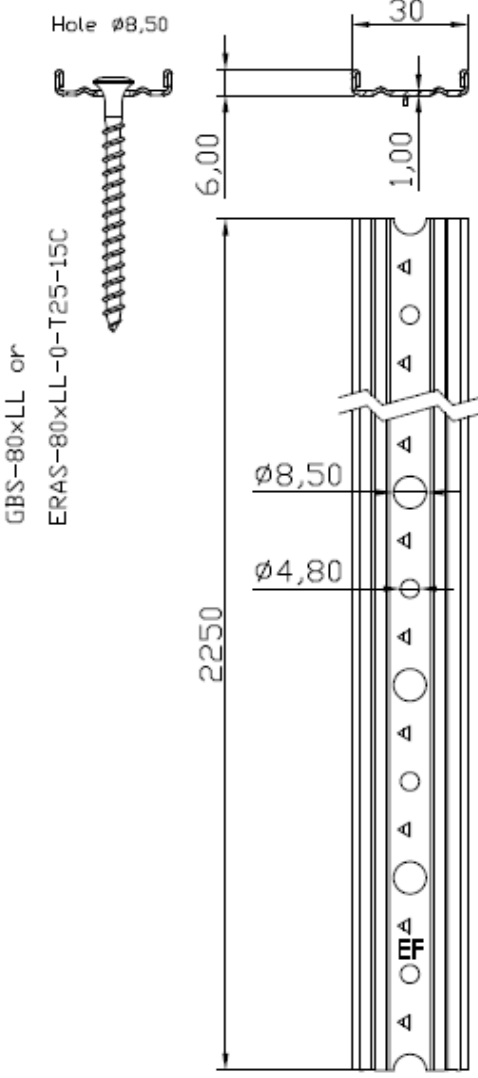
Installation data:

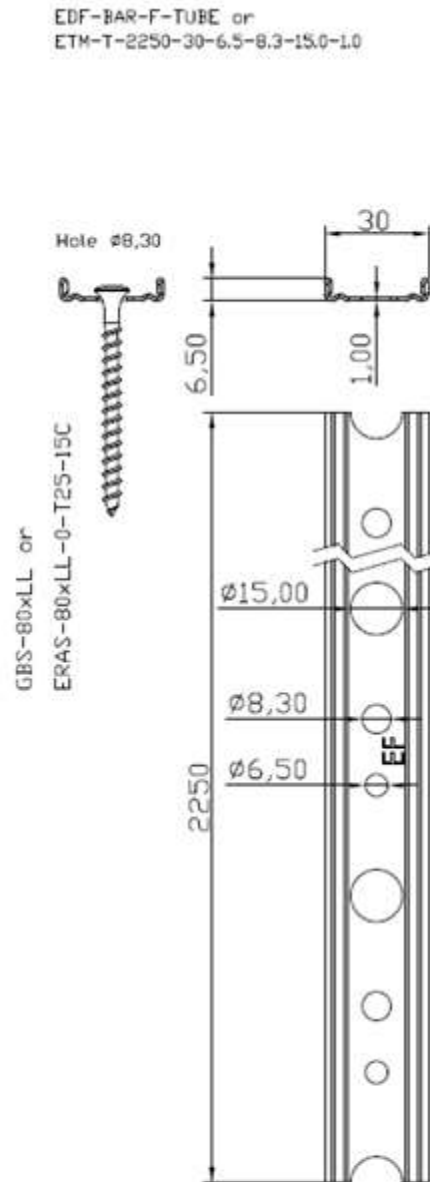
Head type:	Raised Bugle Head
Recess:	TX25
Effective anchoring depth in autoclaved aerated concrete substrate h_{ef} :	≥ 60 mm
Effective anchoring depth in concrete substrate h_{ef} :	≥ 25 mm
Concrete drill diameter:	6,0 mm
Drilled hole depth in concrete:	$h_{ef} + 12$ mm
Fixing in wooden substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool on autoclaved aerated concrete:	15 kg
Installation tool speed on autoclaved aerated concrete:	1000 rpm
Installation force of installation tool on concrete:	15 kg + impact
Installation tool speed on concrete:	100 rpm
Installation force of installation tool in wooden substrate:	30 kg
Installation tool speed in wooden substrate:	2000 - 2500 rpm

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GBS-80xLL (ERAS-80xLL-0-T25-15C)

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<p>EDF-BAR F or ETM-2250-30-4.8-8.5-1.0</p>  <p>GBS-80xLL or ERAS-80xLL-0-T25-15C</p>	<p>EDF-BAR FB or ETM-B-2250-30-4.8-8.5-1.0</p>  <p>GBS-80xLL or ERAS-80xLL-0-T25-15C</p>
<p>Eurofast Flat Roof Fasteners</p>	
<p>GBS-80xLL (ERAS-80xLL-0-T25-15C)</p>	<p>Annex M.3 of European Technical Assessment ETA-23/0651</p>

**Eurofast Flat Roof Fasteners**

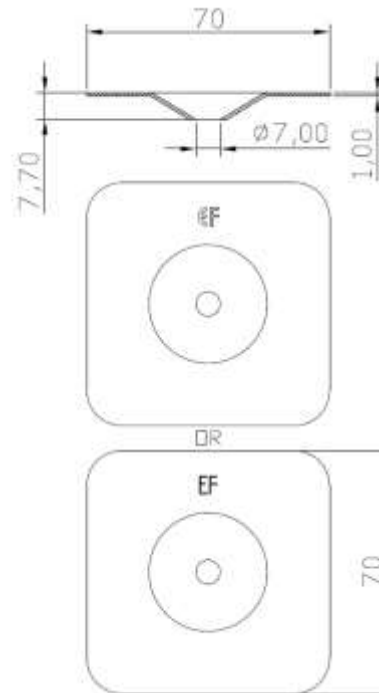
GBS-80xLL (ERAS-80xLL-0-T25-15C)

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of European
Technical Assessment
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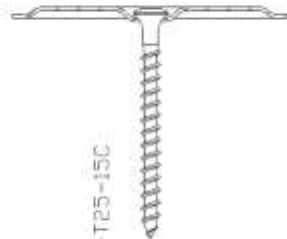
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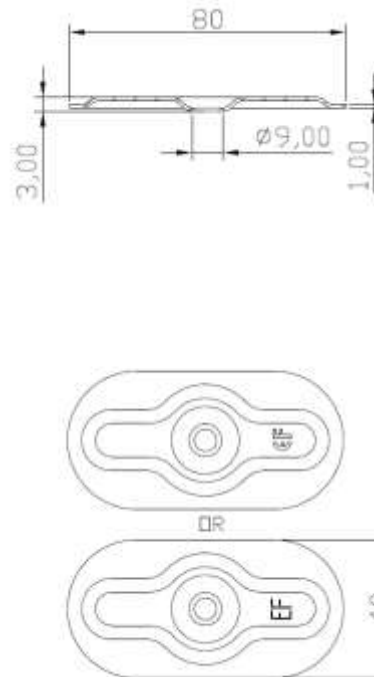
GBS-80xLL or
ERAS-80xLL-0-T25-15C



DVP-EF-8040N-9 or EPM-8040N-9,0-1,0



GBS-80xLL or
ERAS-80xLL-0-T25-15C

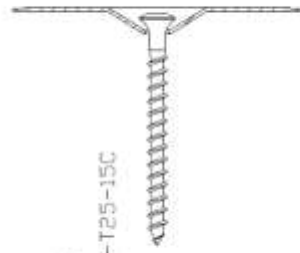


Eurofast Flat Roof Fasteners

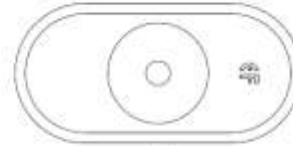
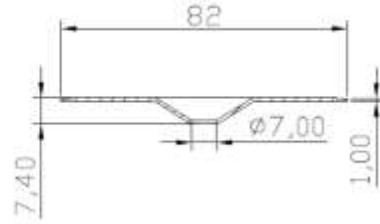
GBS-80xLL (ERAS-80xLL-0-T25-15C)

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DVP-DF-8240D or EPM-8240D-7.00-1.0



GBS-80xLL or
ERAS-80xLL-0-T25-15C



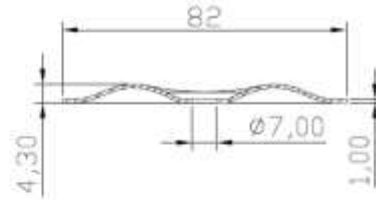
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DVP-DF-8240H or EPM-8240H-7.00-1.0



GBS-80xLL or
ERAS-80xLL-0-T25-15C



DR



Eurofast Flat Roof Fasteners

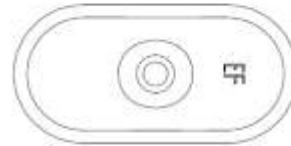
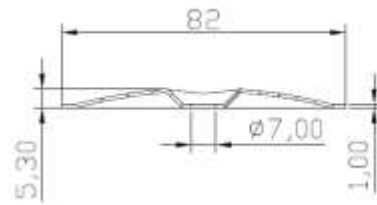
GBS-80xLL (ERAS-80xLL-0-T25-15C)

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DVP-DF-8240XH or EPM-8240XH-7,0-1,0



GBS-80xLL or
ERAS-80xLL-0-T25-15C



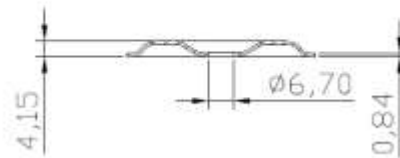
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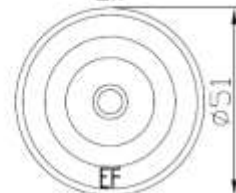
DVP-EF-51N or EPM-51N-6,7-0,84



GBS-80xLL or
ERAS-80xLL-0-T25-15C



DR



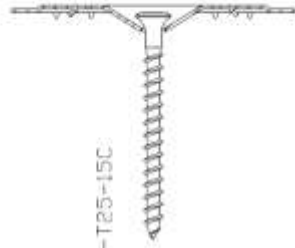
Eurofast Flat Roof Fasteners

GBS-80xLL (ERAS-80xLL-0-T25-15C)

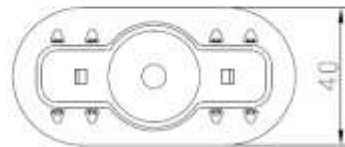
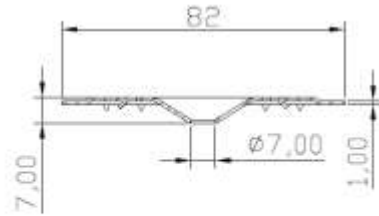
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DVP-DFB-8240D or EPM-B-8240D-7,0-1,0



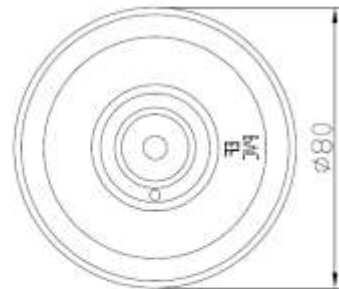
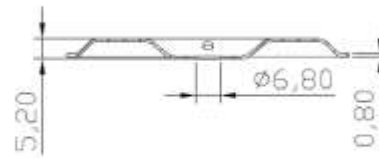
GBS-80xLL or
ERAS-80xLL-0-T25-15C



EPM-IP-80-6.8-0.8



GBS-80xLL or
ERAS-80xLL-0-T25-15C

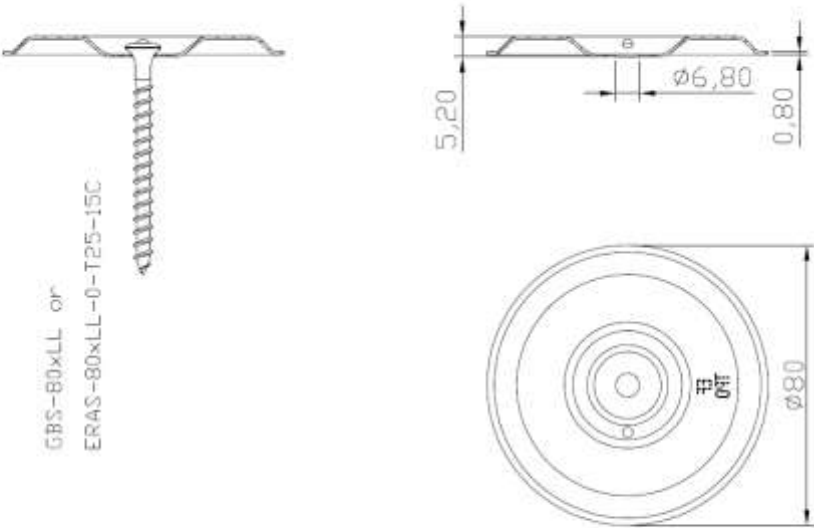
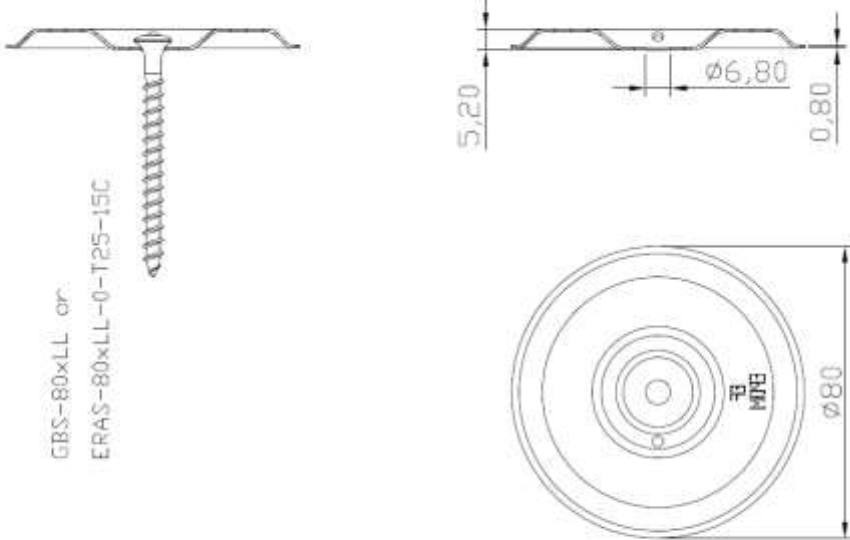


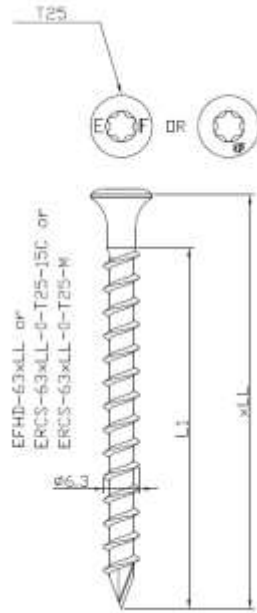
Eurofast Flat Roof Fasteners

GBS-80xLL (ERAS-80xLL-0-T25-15C)

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<p style="text-align: center;">EPM-IT-80-6.8-0.8</p>  <p style="text-align: center;">GBS-80xLL or ERAS-80xLL-0-T25-15C</p>	
<p style="text-align: center;">EPM-IE-80-6.8-0.8</p>  <p style="text-align: center;">GBS-80xLL or ERAS-80xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex M.9 of European Technical Assessment ETA-23/0651</p>
<p>GBS-80xLL (ERAS-80xLL-0-T25-15C)</p>	


Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)

	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,2 mm)*	Concrete C20/25 (drill 5,5 mm)**	Concrete C25/30 (drill 5,5 mm)**
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	2,02	2,61	2,40	2,62

* value also valid for holes drilled with 5,0 mm drills

** value also valid for holes drilled with 5,2 mm or 5,0 mm drills

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)

	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	-	EPM-IT-80-6.8-0.8
	-	EPM-IE-80-6.8-0.8
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through** Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7007H (EPM-70H-6.0-0.7)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-7007N (EPM-70N-6.0-0.7)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	5,05	4,43	3,89	2,96	2,91

** "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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Screw:

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7007N	(EPM-70N-6.0-0.7)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Concrete	C12/15, C20/25, C25/30	EN 206
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Technical data

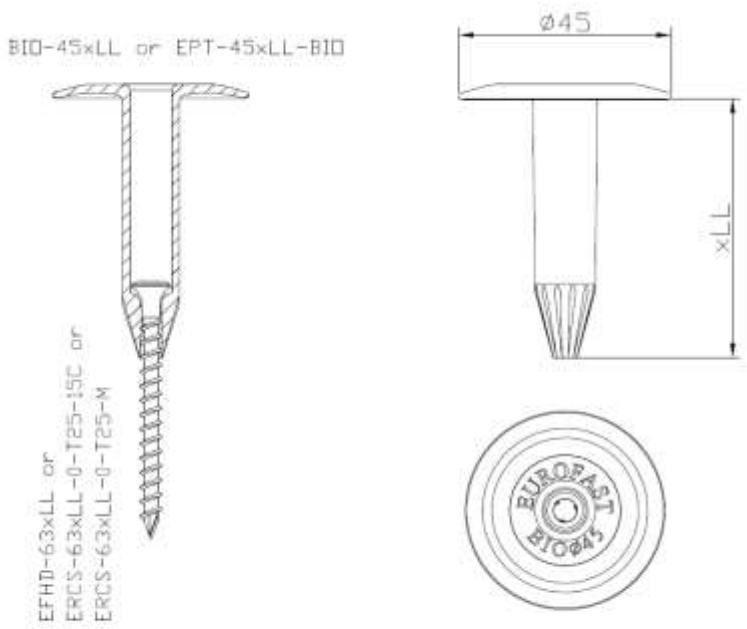
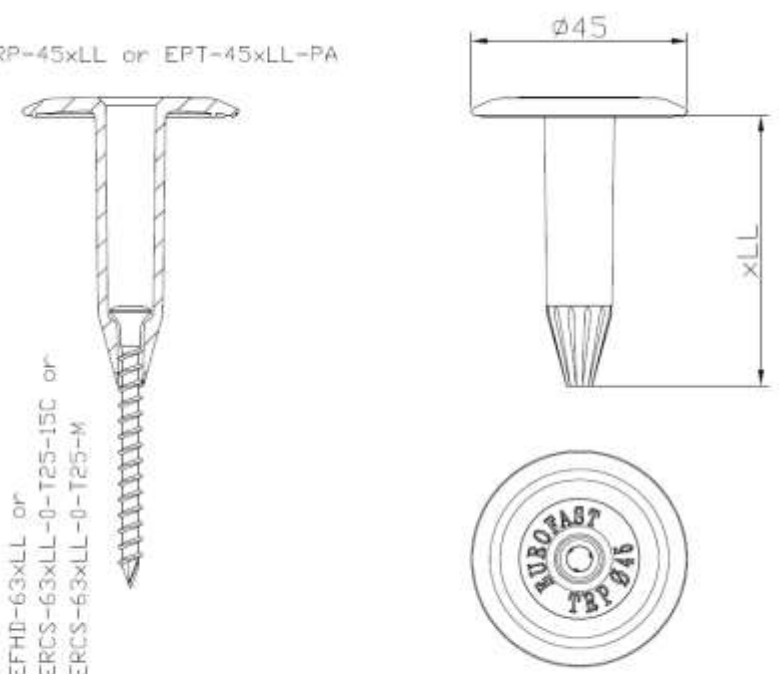
Head type:	Raised Bugle Head
Recess:	TX25
Effective anchoring depth h_{ef} :	≥ 30 mm
Concrete drill diameter in concrete C12/15:	5,0 mm
Concrete drill diameter in concrete C20/25:	5,2 or 5,5 mm
Concrete drill diameter in concrete C25/30:	5,5 mm
Drilled hole depth:	$h_{ef} + 10$ mm
Installation force of installation tool:	15 kg + impact
Installation tool speed:	100 rpm

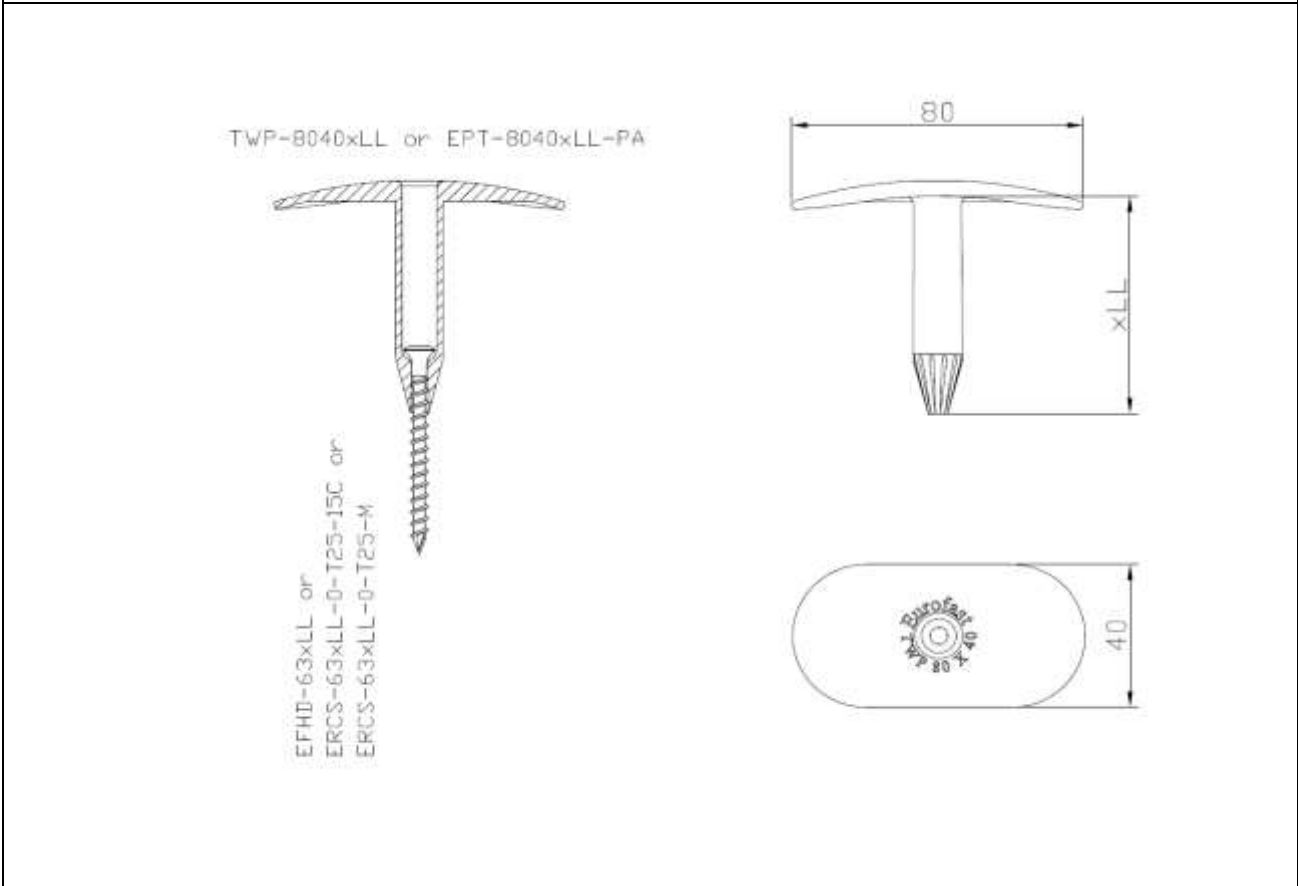
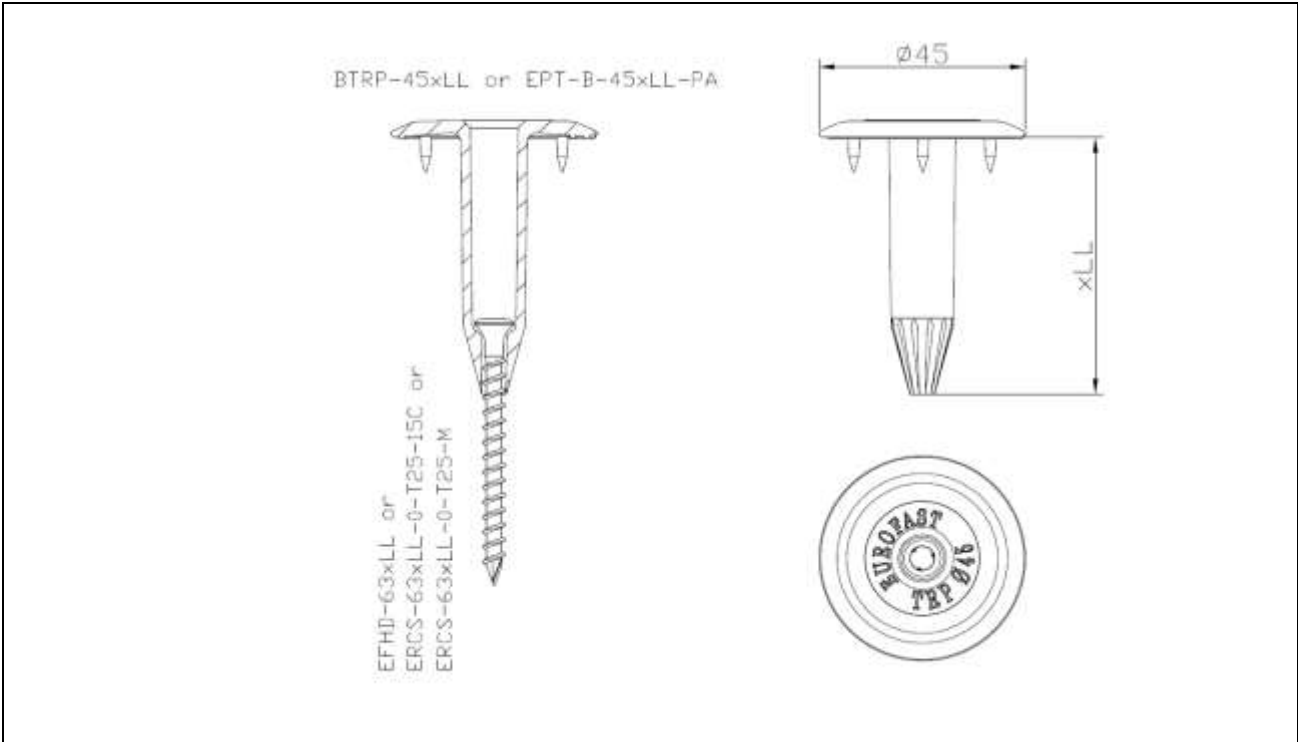
Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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<p style="text-align: center;">BIO-45xLL or EPT-45xLL-BIO</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p style="text-align: center;">TRP-45xLL or EPT-45xLL-PA</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex N.4 of European Technical Assessment ETA-23/0651</p>
<p>EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)</p>	

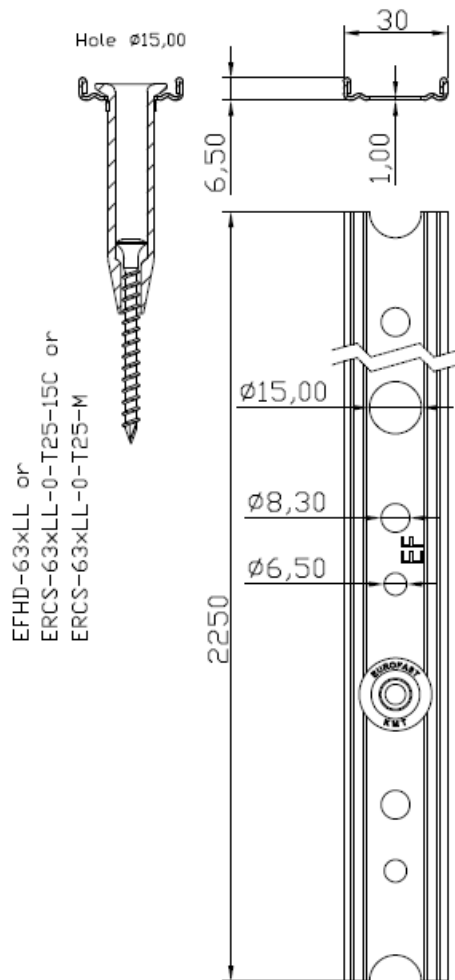


Eurofast Flat Roof Fasteners

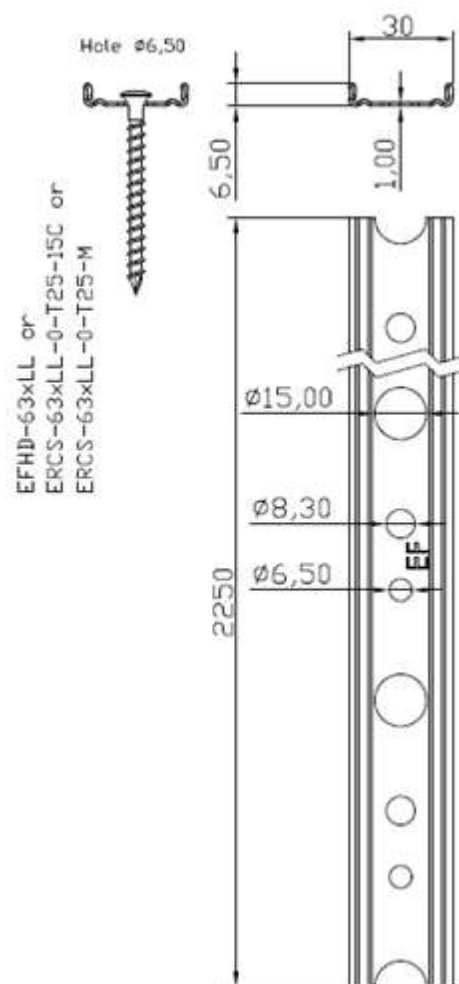
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA



EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0

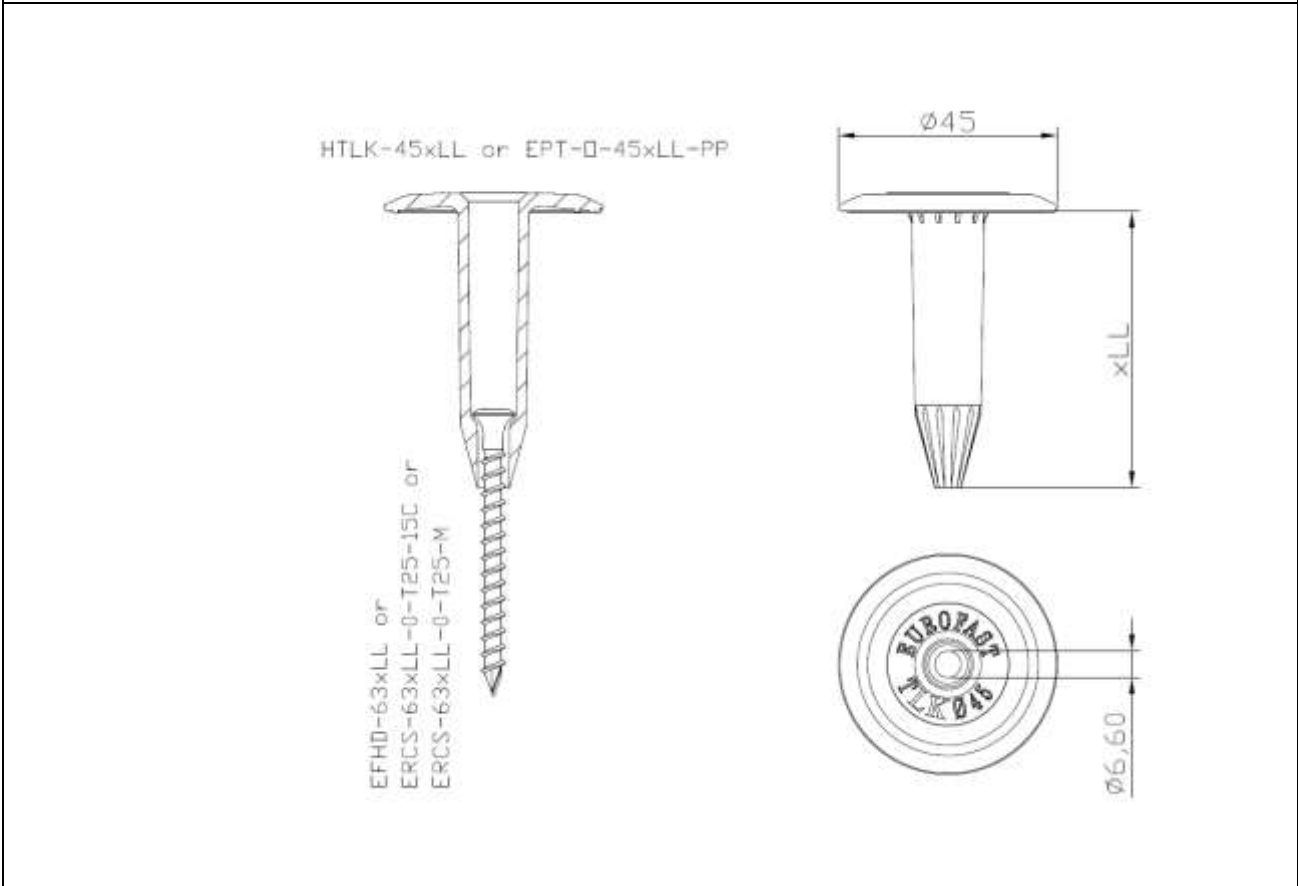
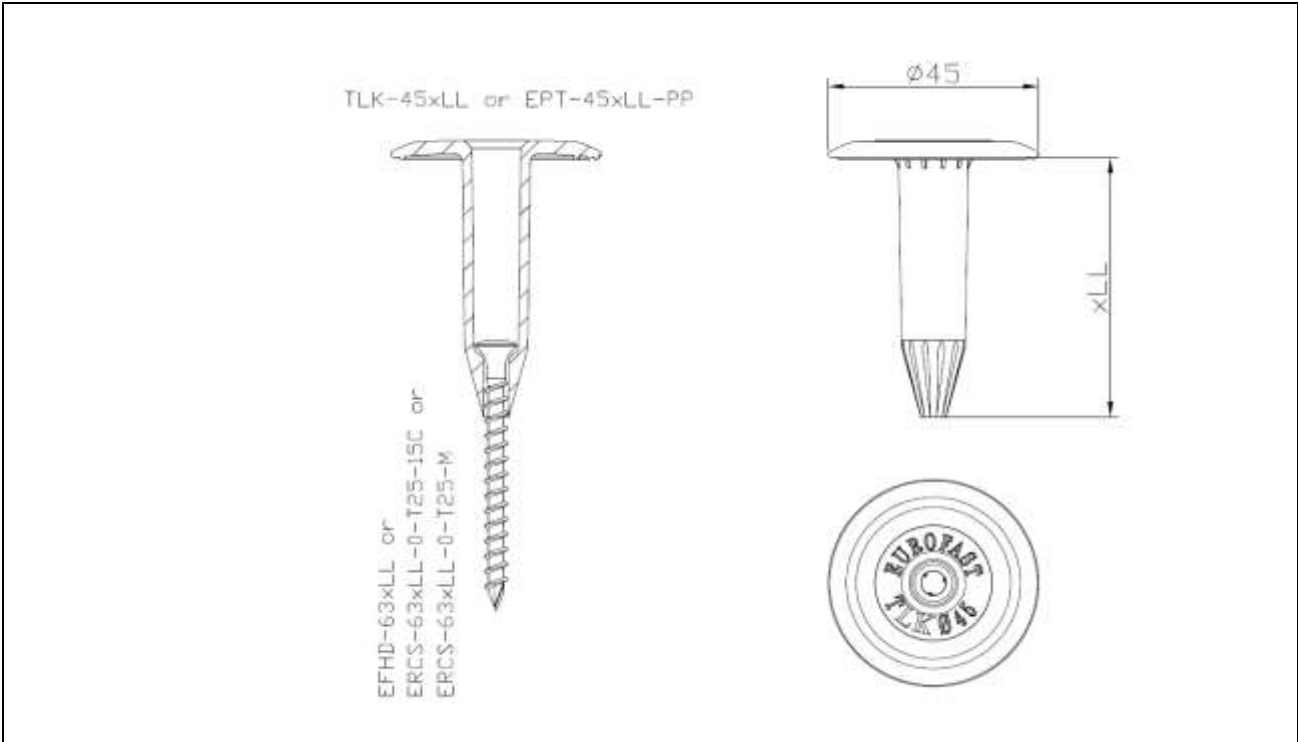


Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

Annex N.6

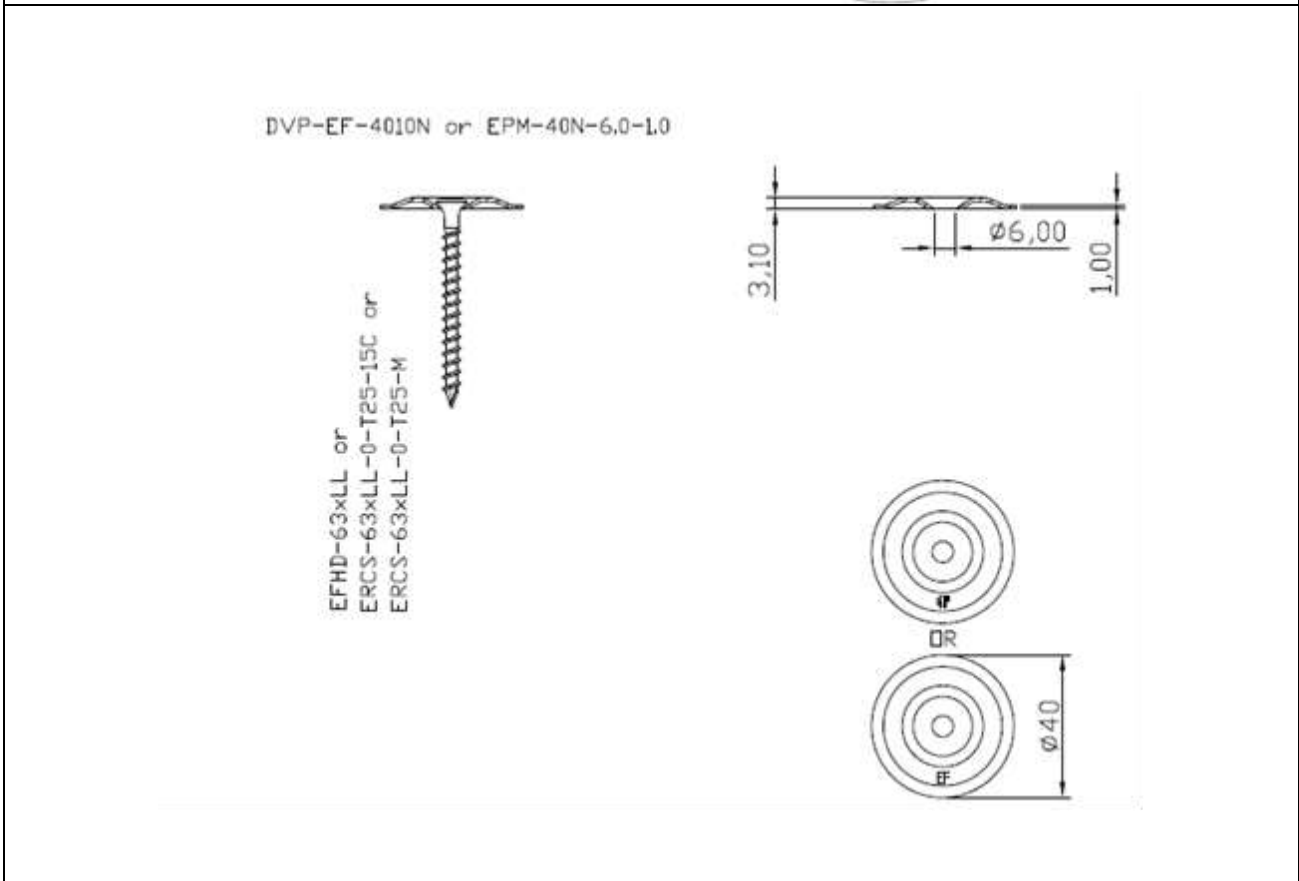
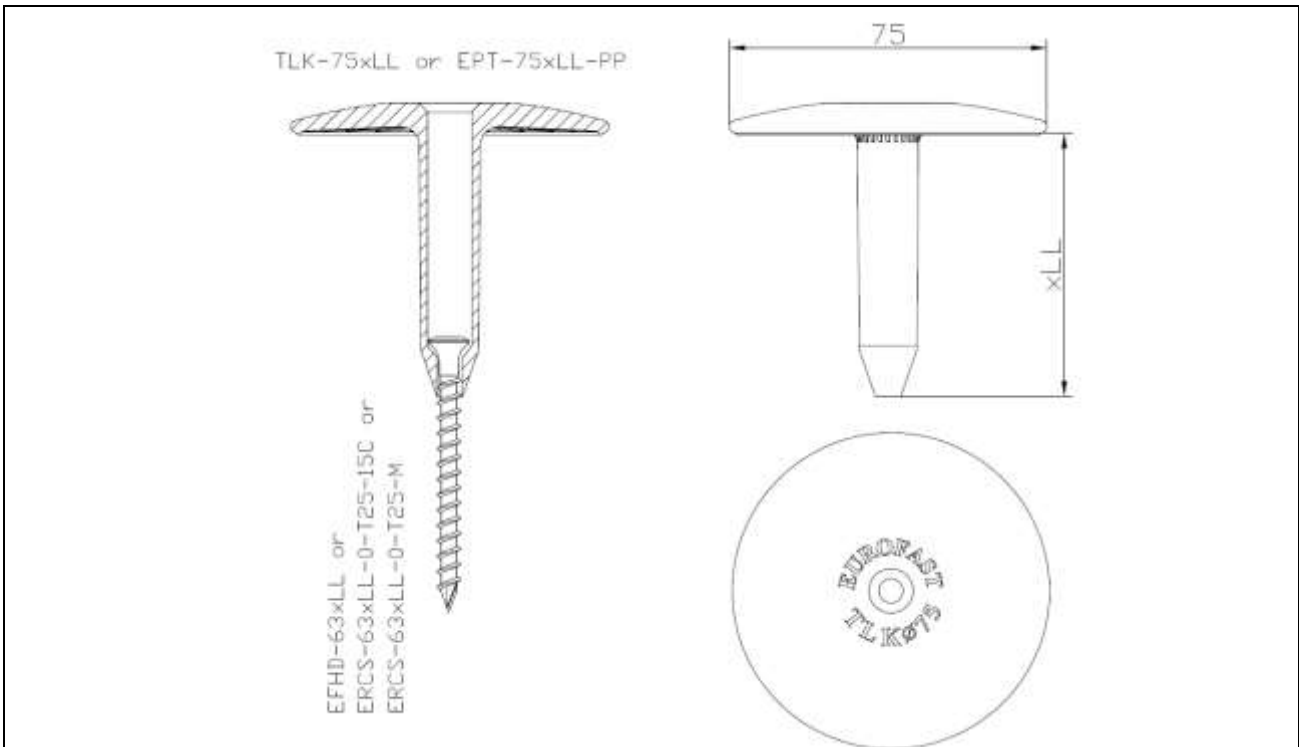
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Technical Assessment
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Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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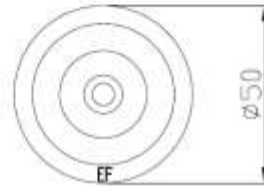
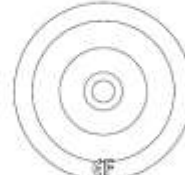
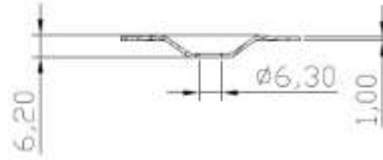
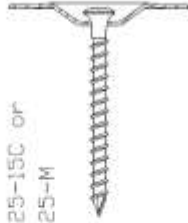
Eurofast Flat Roof Fasteners

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ETA-23/0651

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

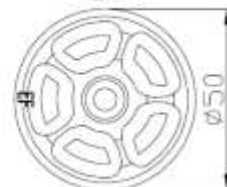
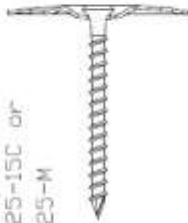
DVP-EF-5010D or EPM-50D-6.3-1.0

EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-EF-5010N or EPM-50N-6.3-1.0

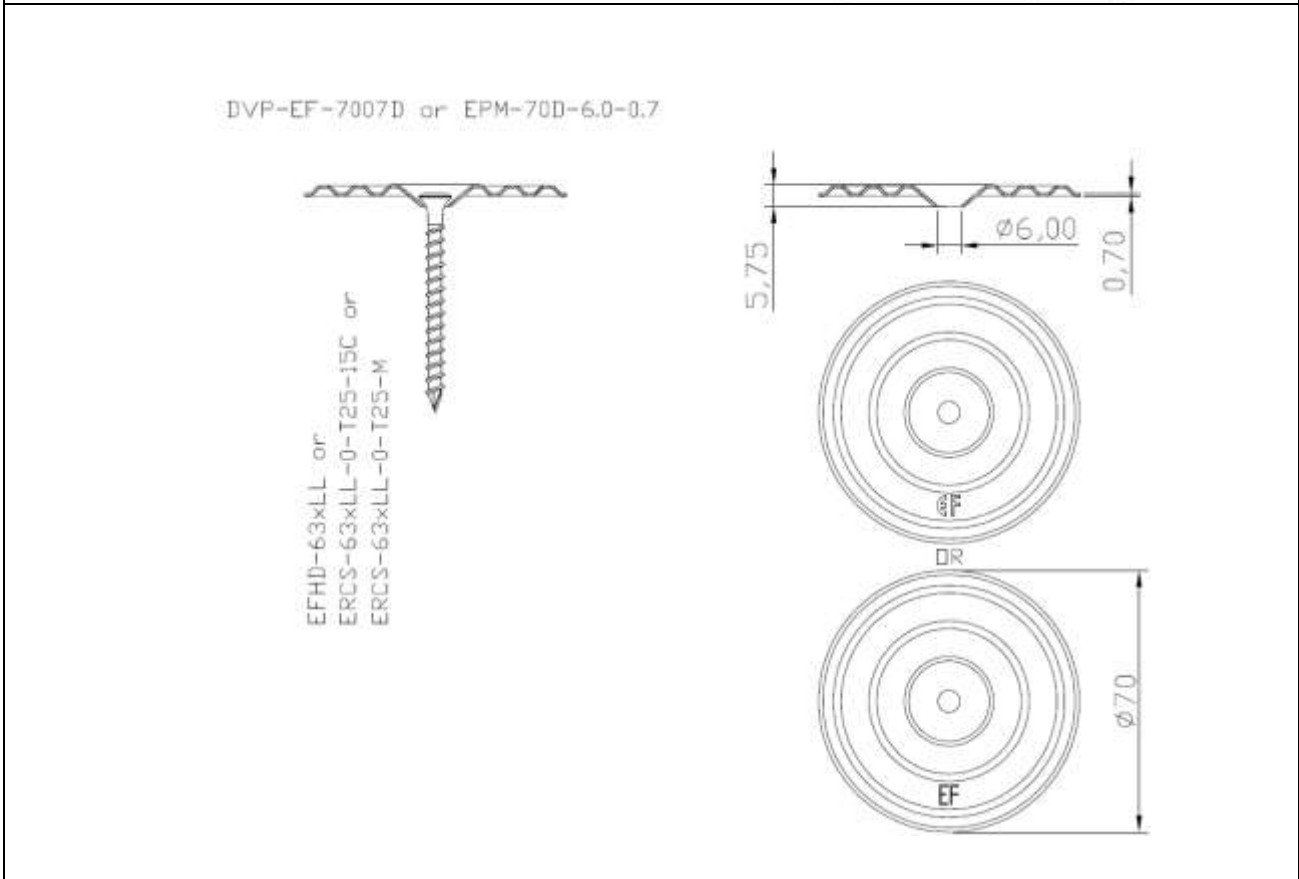
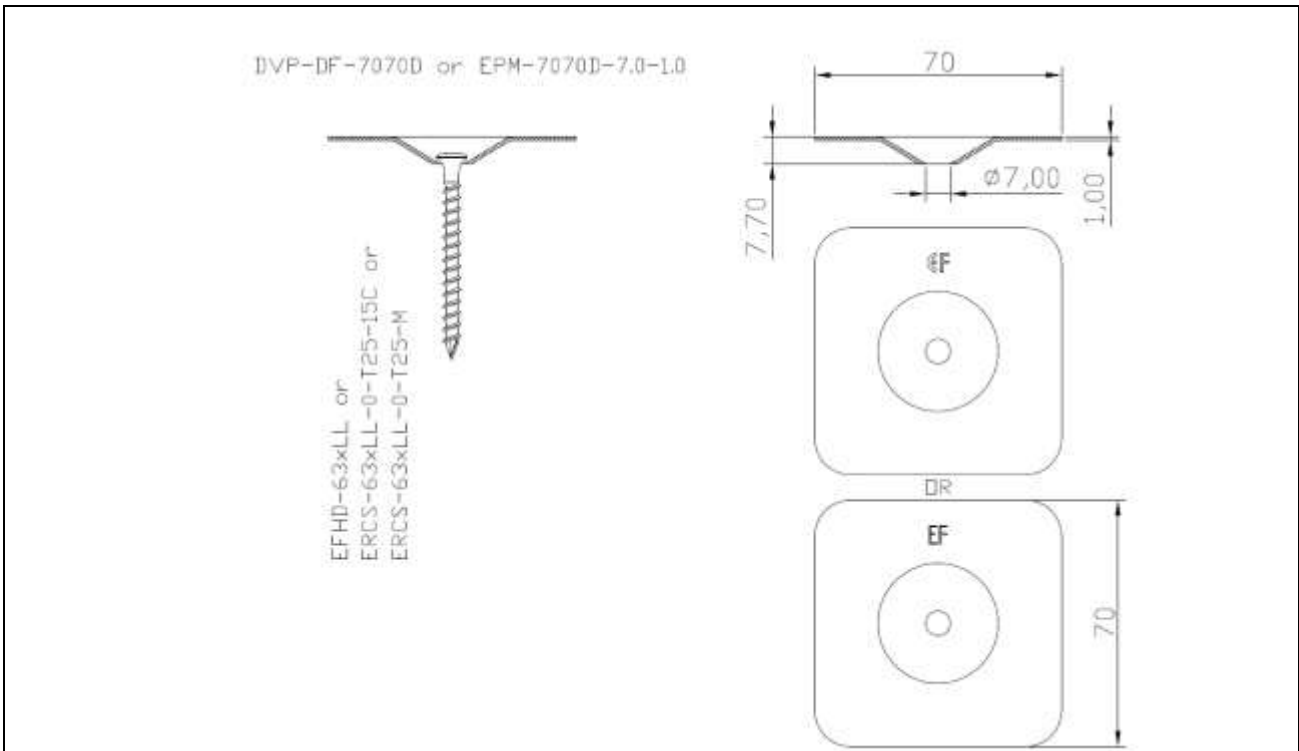
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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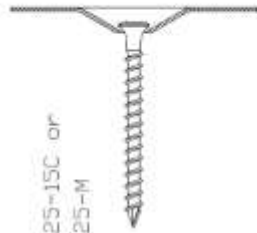


Eurofast Flat Roof Fasteners

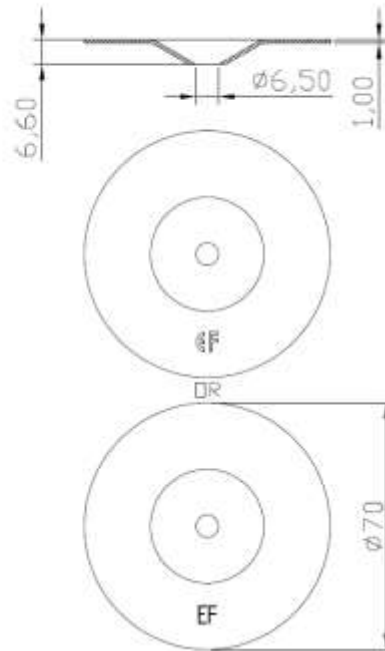
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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of European
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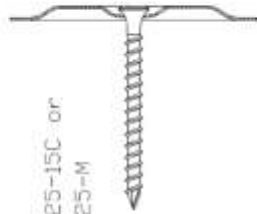
DVP-EF-7010D or EPM-70D-6.5-1.0



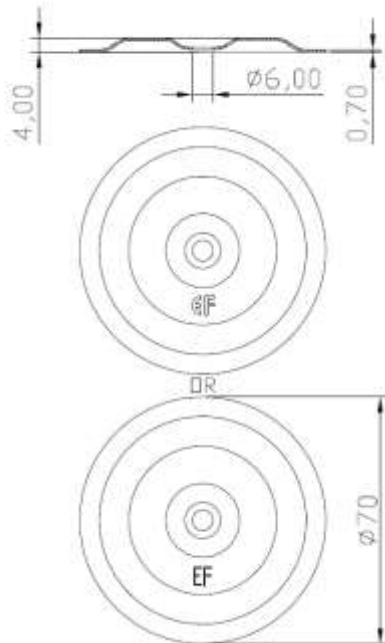
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-EF-7007H or EPM-70H-6.0-0.7



EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

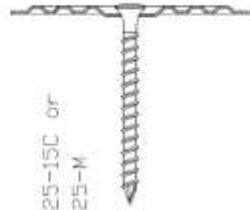


Eurofast Flat Roof Fasteners

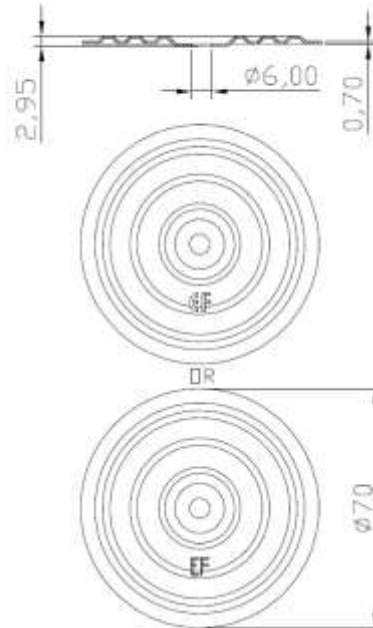
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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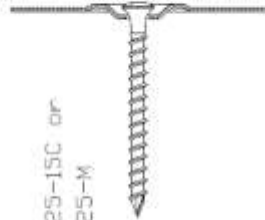
DVP-EF-7007N or EPM-70N-6,0-0,7



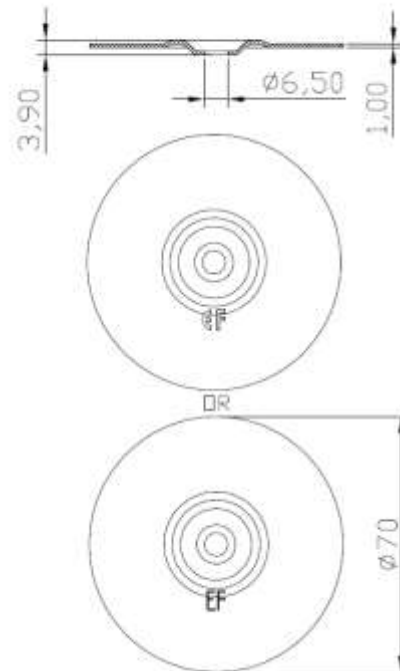
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-EF-7010N or EPM-70N-6,5-1,0



EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

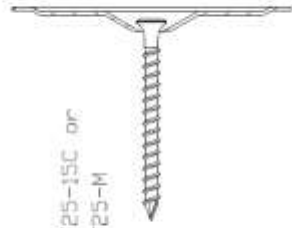


Eurofast Flat Roof Fasteners

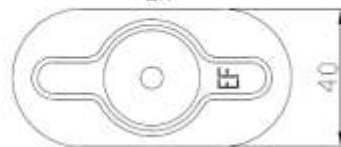
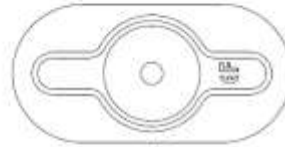
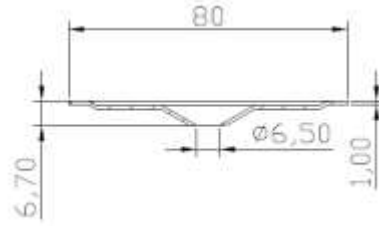
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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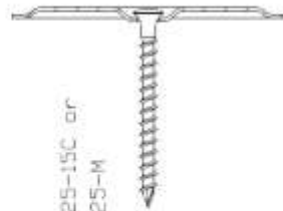
DVP-EF-8040D or EPM-8040D-6.5-1.0



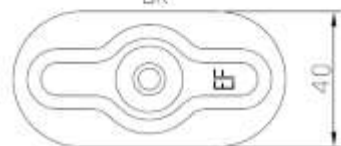
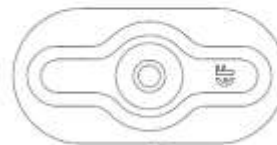
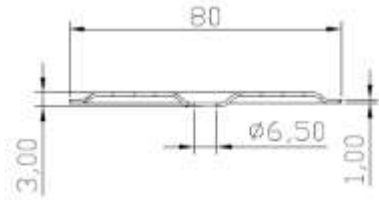
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-EF-8040N or EPM-8040N-6.5-1.0



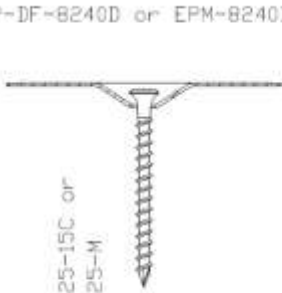

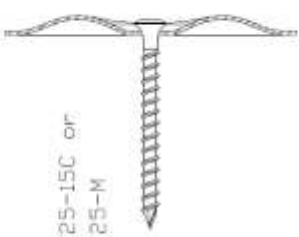
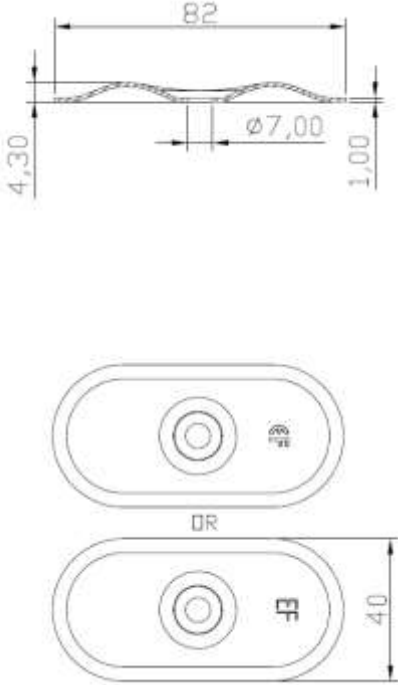
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

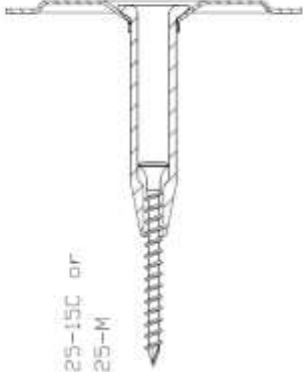
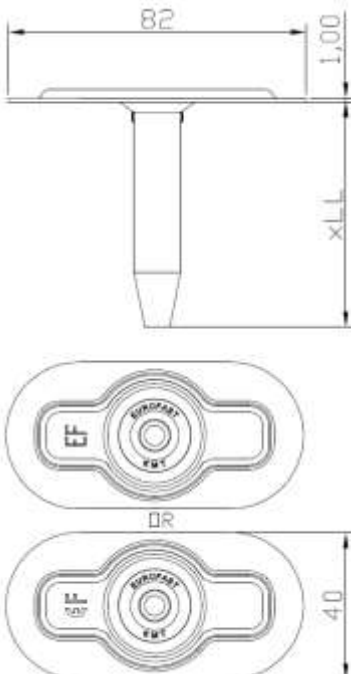
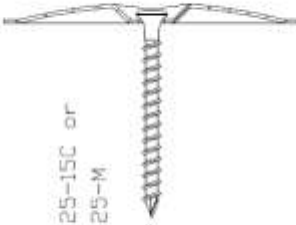
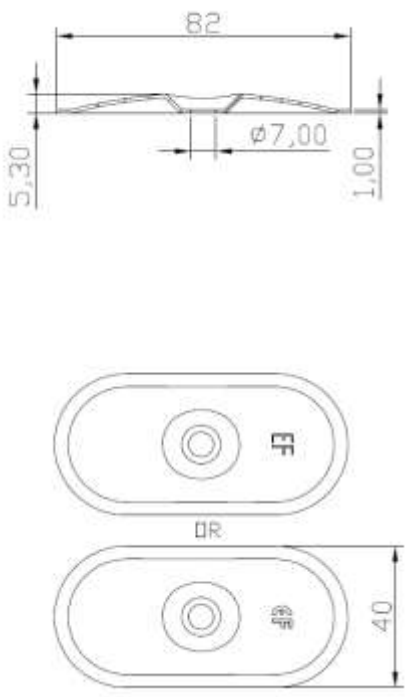


Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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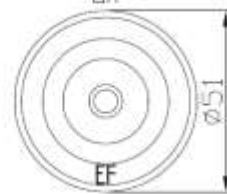
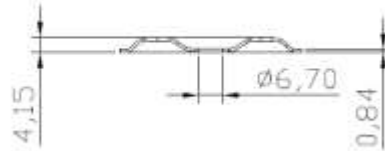
<p>DVP-DF-8240D or EPM-8240D-7.00-1.0</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p>DVP-DF-8240H or EPM-8240H-7.0-1.0</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex N.14 of European Technical Assessment ETA-23/0651</p>
<p>EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)</p>	

<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p>DVP-DF-8240XH or EPM-8240XH-7.0-1.0</p>  <p>EFHD-63xLL or ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex N.15 of European Technical Assessment ETA-23/0651</p>
<p>EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)</p>	

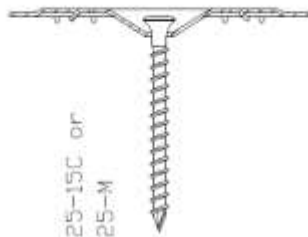
DVP-EF-51N or EPM-51N-6.7-0.84



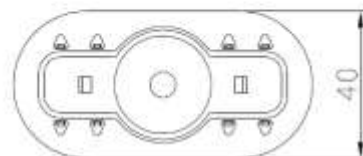
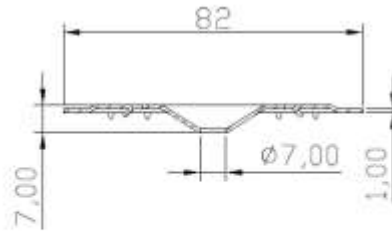
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

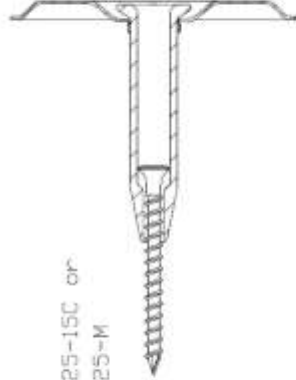


Eurofast Flat Roof Fasteners

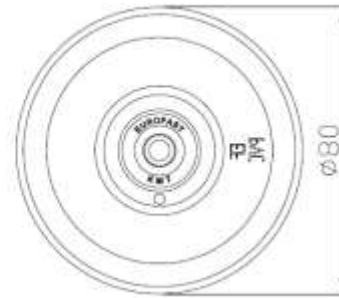
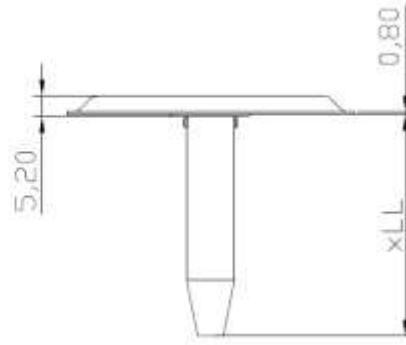
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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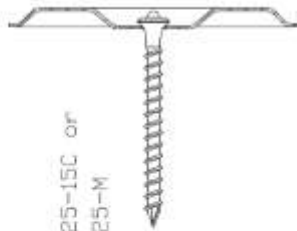
EPM-T-IP-80-13,6-0,8 + KMT-15xLL or
 EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA



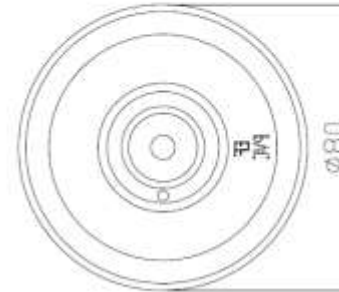
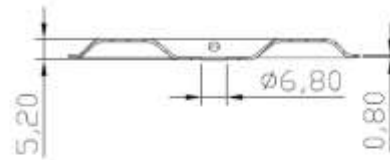
EFHD-63xLL or
 ERCS-63xLL-0-T25-15C or
 ERCS-63xLL-0-T25-M



EPM-IP-80-6,8-0,8



EFHD-63xLL or
 ERCS-63xLL-0-T25-15C or
 ERCS-63xLL-0-T25-M

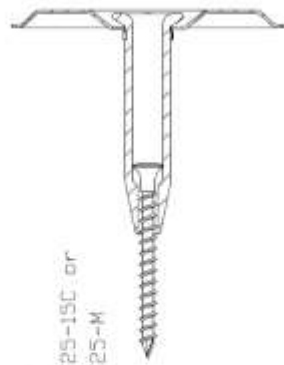


Eurofast Flat Roof Fasteners

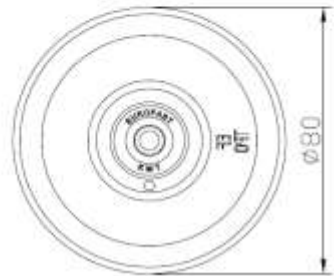
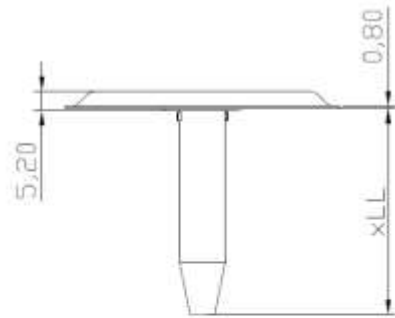
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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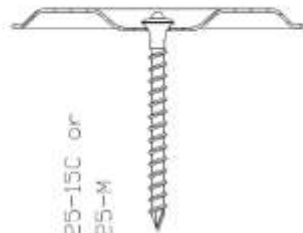
EPM-T-IT-80-13,6-0,8 + KMT-15xLL or
EPM-T-IT-80-13,6-0,8 + EPT-15xLL-PA



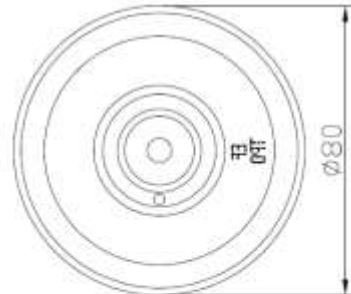
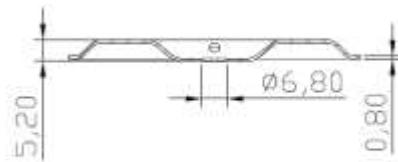
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



EPM-IT-80-6,8-0,8



EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

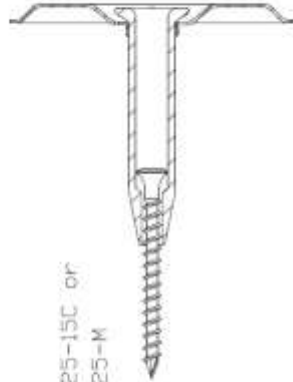


Eurofast Flat Roof Fasteners

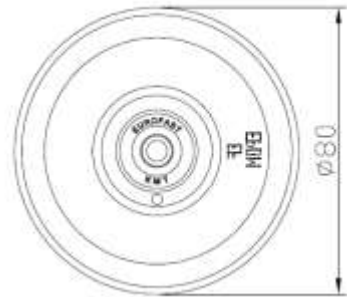
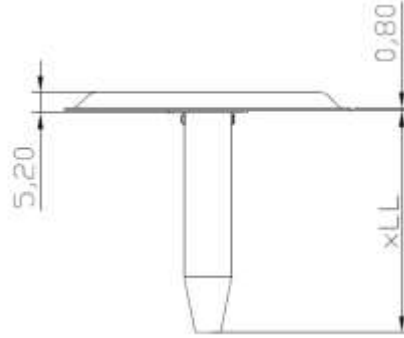
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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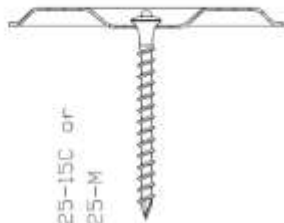
EPM-T-IE-80-13,6-0,8 + KMT-15xLL or
EPM-T-IE-80-13,6-0,8 + EPT-15xLL-PA



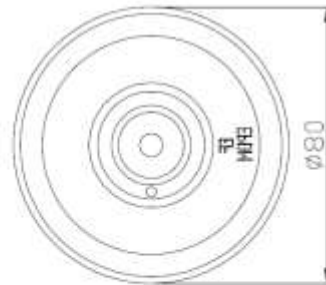
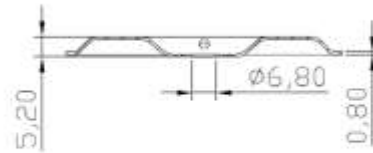
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



EPM-IE-80-6,8-0,8



EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M

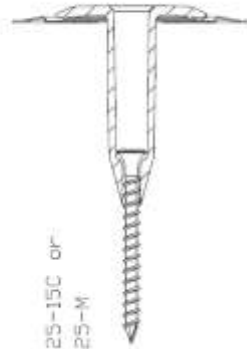


Eurofast Flat Roof Fasteners

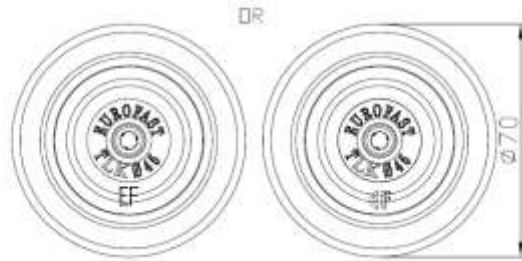
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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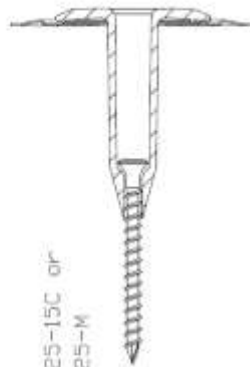
DVP-DL-70N + TLK-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



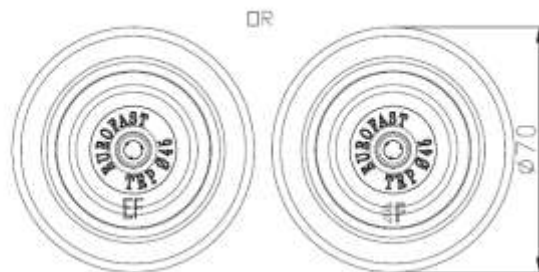
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



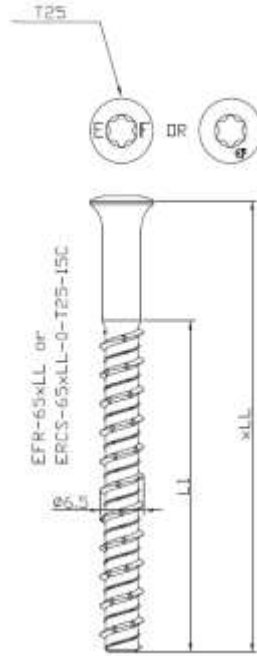
EFHD-63xLL or
ERCS-63xLL-0-T25-15C or
ERCS-63xLL-0-T25-M



Eurofast Flat Roof Fasteners

EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)				
	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,2 mm)*	Concrete C20/25 (drill 5,5 mm)**	Concrete C25/30 (drill 5,5 mm)**
EFR-65xLL (ERCS-65xLL-0-T25-15C)	3,91	5,05	4,04	4,42

* value also valid for holes drilled with 5,0 mm drills

** value also valid for holes drilled with 5,2 mm or 5,0 mm drills

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)		
	DVP-EF-51N (EPM-51N-6.7-0.84)	EPM-IP-80-6.8-0.8
	-	EPM-IT-80-6.8-0.8
	-	EPM-IE-80-6.8-0.8
EFR-65xLL (ERCS-65xLL-0-T25-15C)	2,93	2,92

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

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Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EFR-65xLL (ERCS-65xLL-0-T25-15C)	2,64	1,68	1,78

* "Pull-over" according to CEN/TS 17659:2021

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-4010N (EPM-40N-6.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-DF-7070D (EPM-7070D-7.0-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)
	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	DVP-EF-5010N (EPM-50N-6.3-1.0)	DVP-DF-8240D (EPM-8240D-7.0-1.0)	DVP-EF-7007H (EPM-70H-6.0-0.7)
	DVP-EF-7010N (EPM-70N-6.5-1.0)	-	-	DVP-DF-8240H (EPM-8240H-7.0-1.0)	DVP-EF-7007N (EPM-70N-6.0-0.7)
	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)	-
	DVP-EF-8040N (EPM-8040N-6.5-1.0)	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)	-
EFR-65xLL (ERCS-65xLL-0-T25-15C)	5,05	4,43	3,89	2,96	2,91

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

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Screw:

EFR-65xLL (ERCS-65xLL-0-T25-15C)

Metal pressure plate:

DVP-EF-4010N	(EPM-40N-6.0-1.0)	DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-EF-51N	(EPM-51N-6.7-0.84)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	EPM-IP-80-6.8-0.8	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	EPM-IT-80-6.8-0.8	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	EPM-IE-80-6.8-0.8	
DVP-EF-7007H	(EPM-70H-6.0-0.7)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-7007N	(EPM-70N-6.0-0.7)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-7010N	(EPM-70N-6.5-1.0)	EPM-T-IT-80-13.6-0.8 + KMT-15xLL	(EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	EPM-T-IE-80-13.6-0.8 + KMT-15xLL	(EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
DVP-EF-8040N	(EPM-8040N-6.5-1.0)	DVP-DL-70N + TRP-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	DVP-DL-70N + TLK-45xLL	(EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)
DVP-DF-8240H	(EPM-8240H-7.0-1.0)		

Pressure plate with tube:

BIO-45xLL	(EPT-45xLL-BIO)
TRP-45xLL	(EPT-45xLL-PA)
BTRP-45xLL	(EPT-B-45xLL-PA)
TWP-8040xLL	(EPT-8040xLL-PA)
TLK-45xLL	(EPT-45xLL-PP)
HTLK-45xLL	(EPT-O-45xLL-PP)
TLK-75xLL	(EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)
EDF-BAR F-TUBE + KMT-15xLL	(ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Concrete	C12/15, C20/25, C25/30	EN 206
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Installation data:

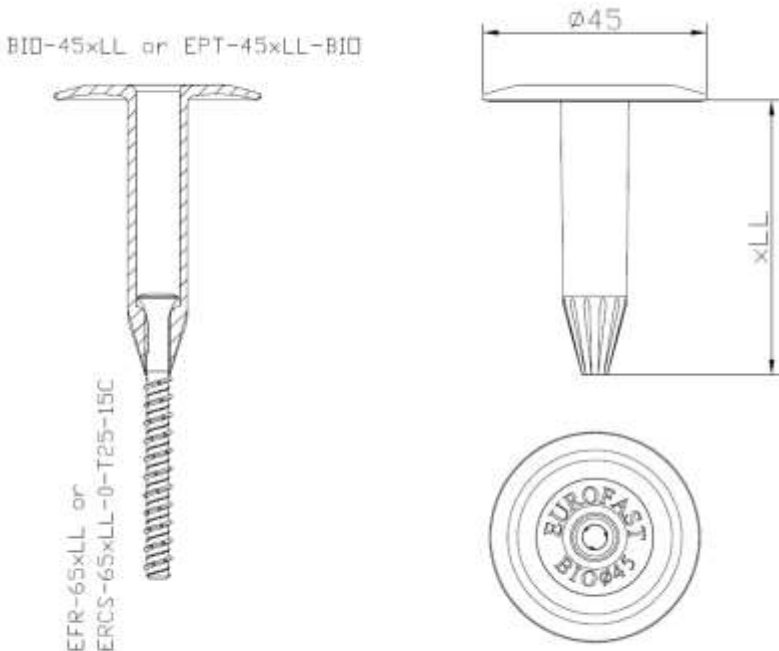
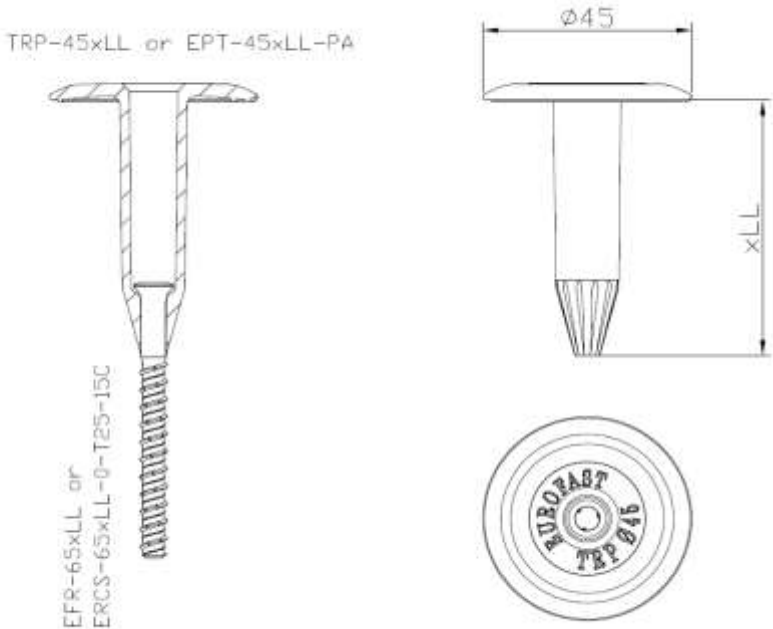
Head type:	Raised Bugle Head
Recess:	TX25
Effective anchoring depth h_{ef} :	≥ 25 mm
Drill diameter in concrete C12/15:	5,0 mm
Drill diameter in concrete C20/25:	5,2 or 5,5 mm
Drill diameter in concrete C25/30:	5,5 mm
Drilled hole depth:	$h_{ef} + 10$ mm
Installation force of installation tool:	15 kg + impact
Installation tool speed:	100 rpm

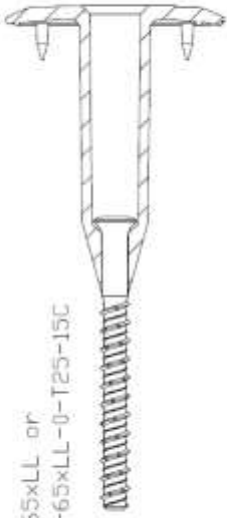
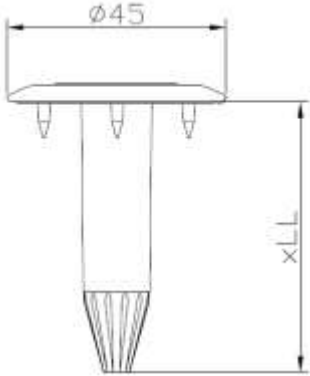

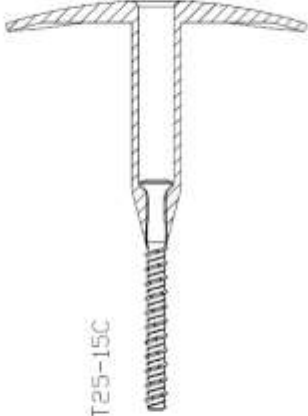
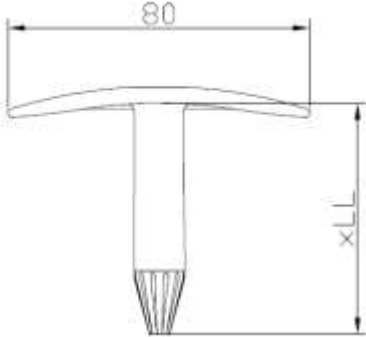

Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

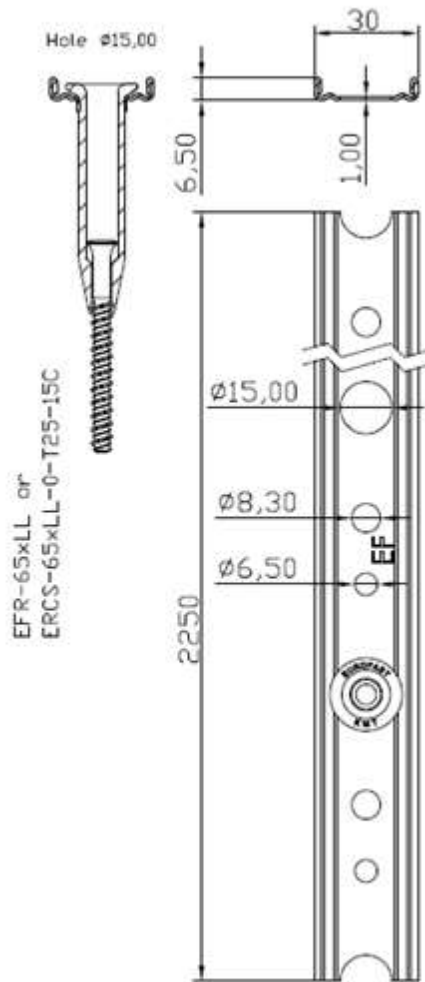
Annex O.3

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 Technical Assessment
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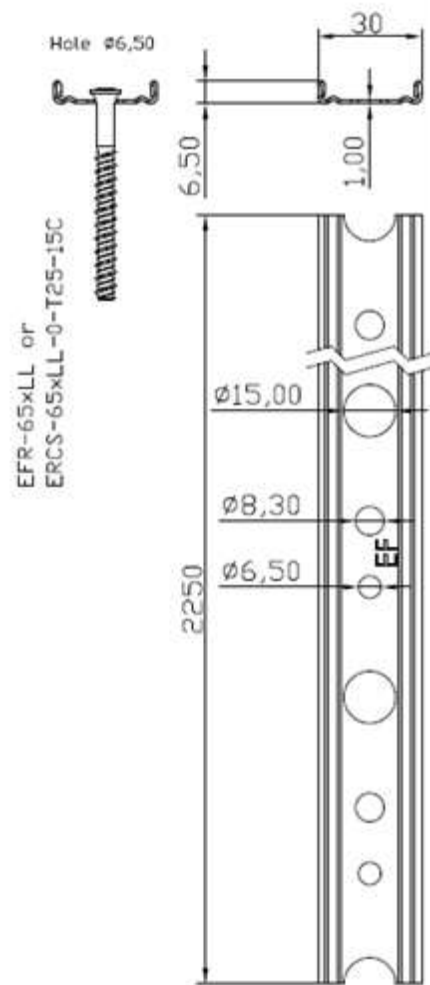
<p>BID-45xLL or EPT-45xLL-BID</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	
<p>TRP-45xLL or EPT-45xLL-PA</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex O.4 of European Technical Assessment ETA-23/0651</p>
<p>EFR-65xLL (ERCS-65xLL-0-T25-15C)</p>	

<p>BTRP-45xLL or EPT-B-45xLL-PA</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	 
<p>TWP-8040xLL or EPT-8040xLL-PA</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	 
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex O.5 of European Technical Assessment ETA-23/0651</p>
<p>EFR-65xLL (ERCS-65xLL-0-T25-15C)</p>	

EDF-BAR-F-TUBE + KMT-15xLL or
ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA



EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0

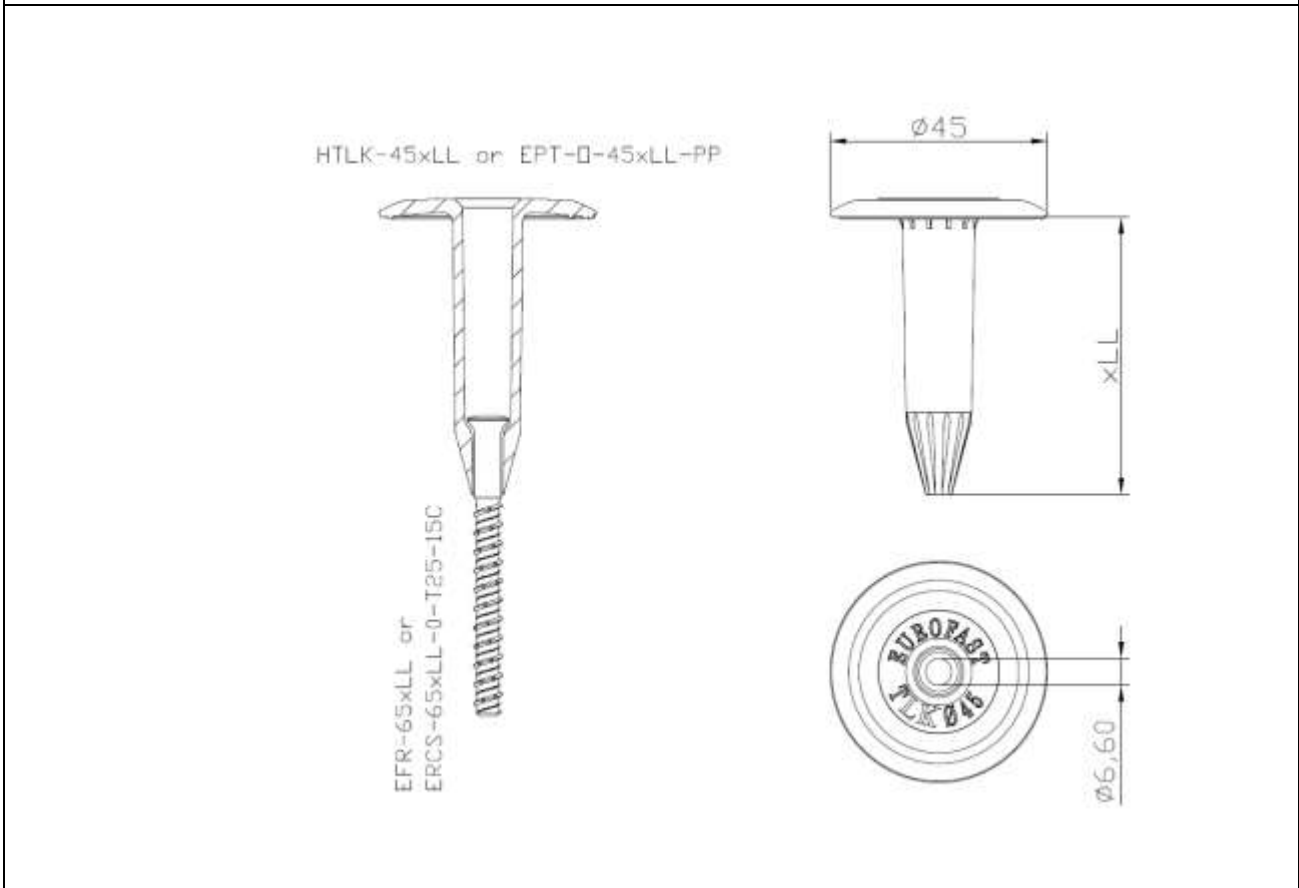
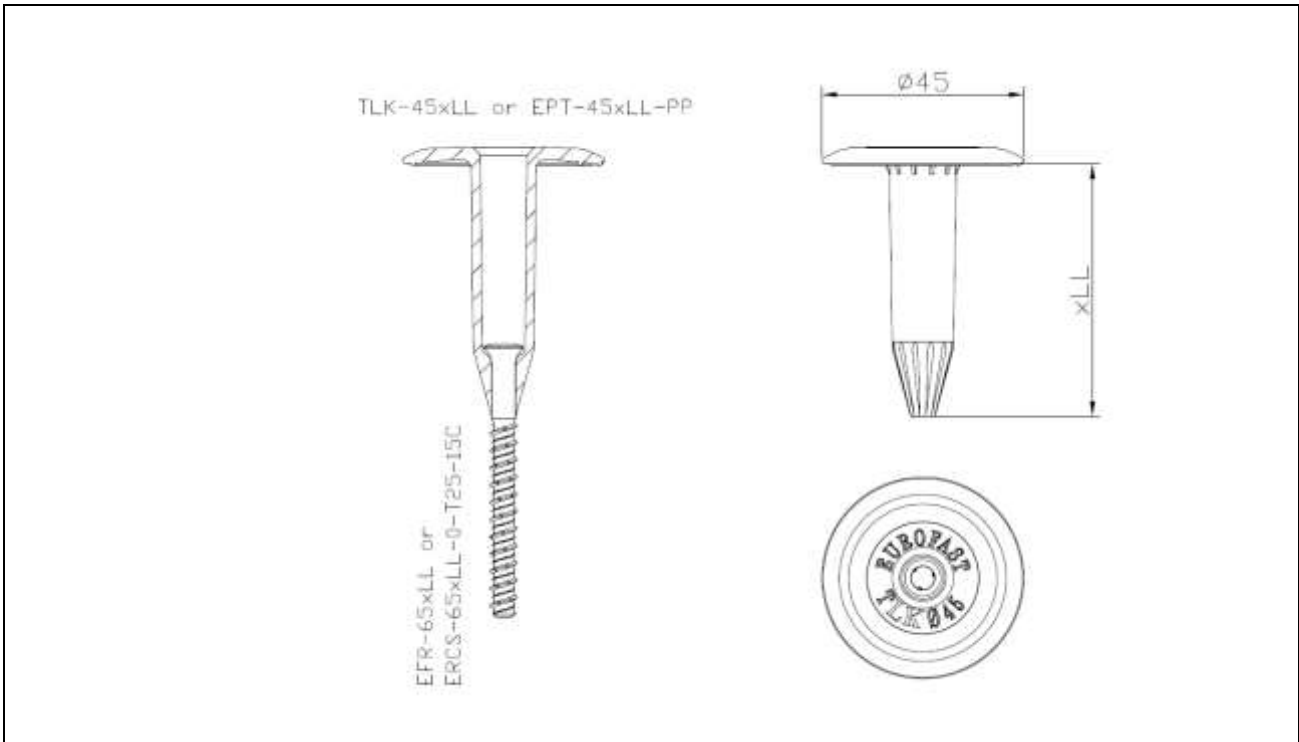


Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

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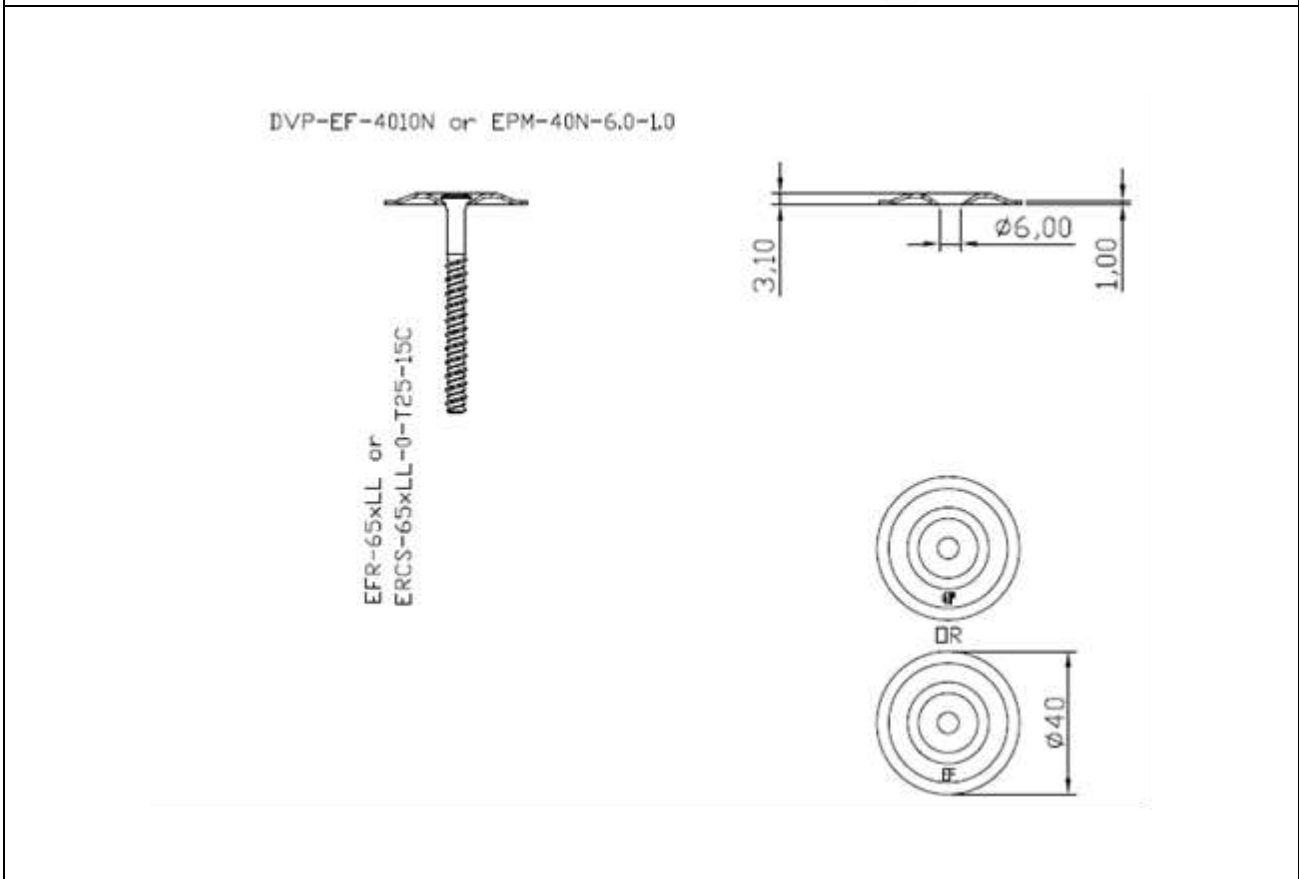
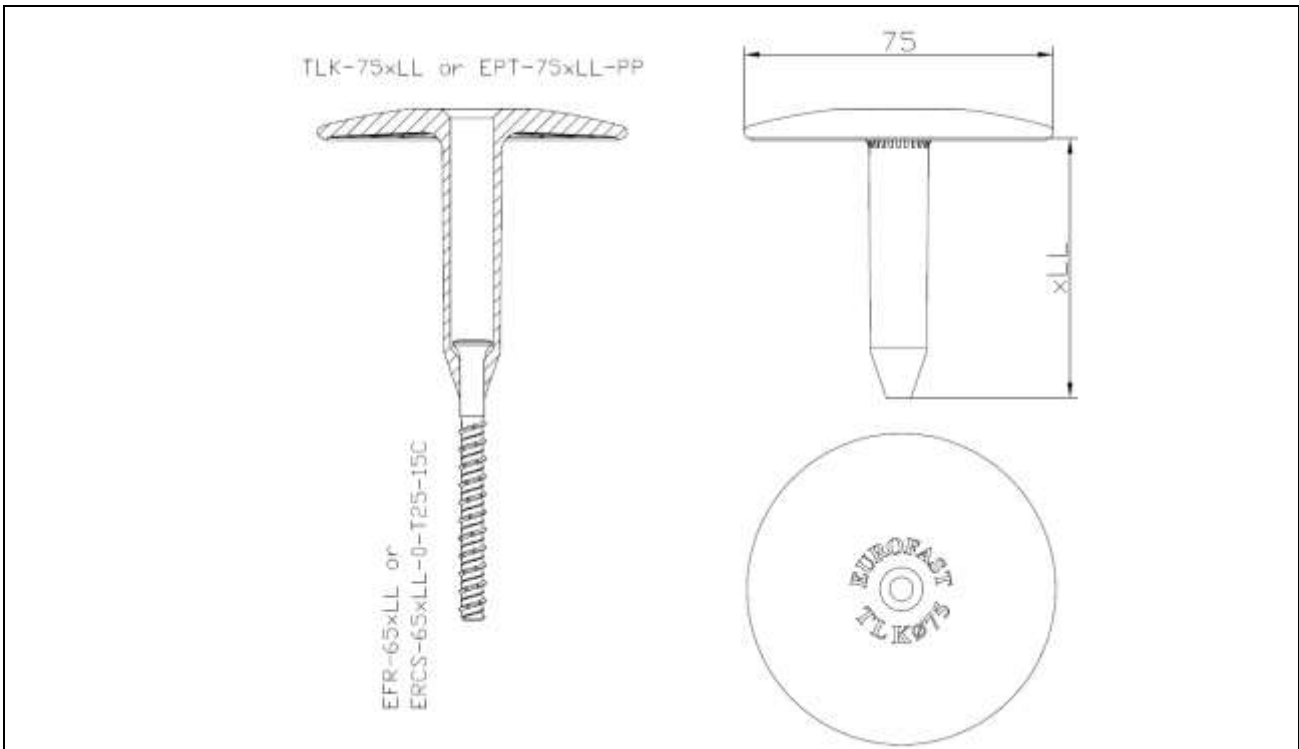


Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

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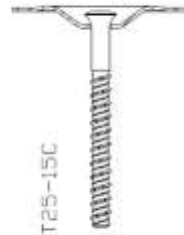


Eurofast Flat Roof Fasteners

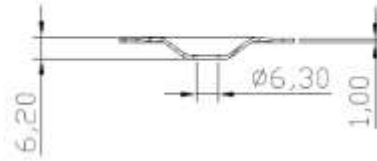
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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of European
Technical Assessment
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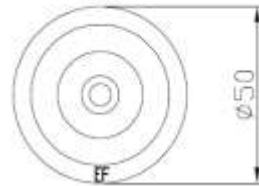
DVP-EF-5010D or EPM-50D-6.3-1.0



EFR-65xLL or
ERCS-65xLL-0-T25-15C



OR



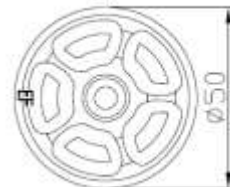
DVP-EF-5010N or EPM-50N-6.3-1.0



EFR-65xLL or
ERCS-65xLL-0-T25-15C



OR



Eurofast Flat Roof Fasteners

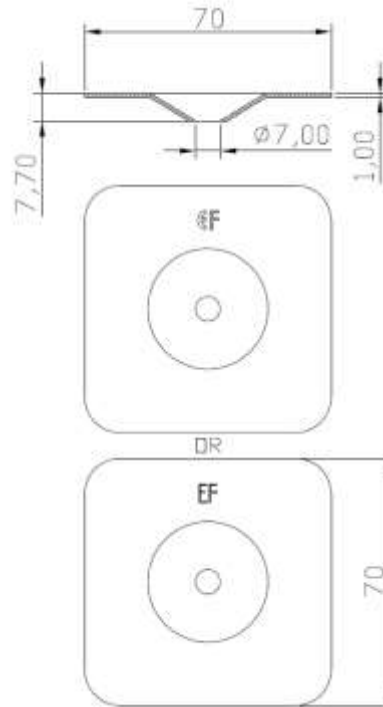
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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of European
Technical Assessment
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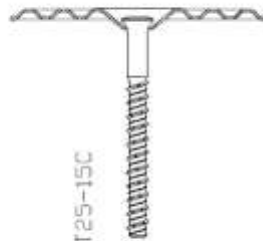
DVP-DF-7070D or EPM-7070D-7.0-1.0



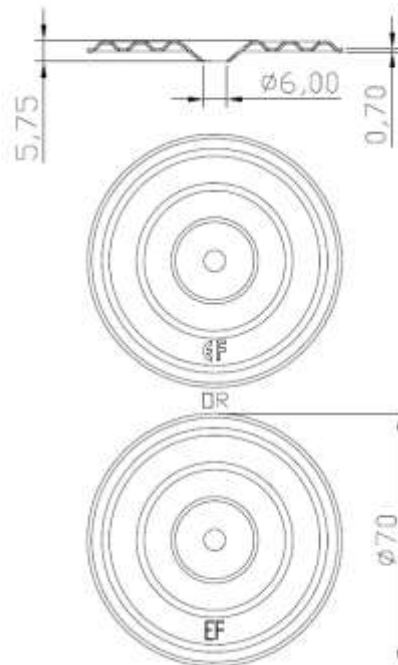
EFR-65xLL or
ERCS-65xLL-0-T25-15C



DVP-EF-7007D or EPM-70D-6.0-0.7



EFR-65xLL or
ERCS-65xLL-0-T25-15C

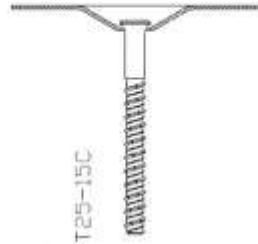


Eurofast Flat Roof Fasteners

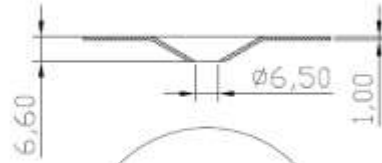
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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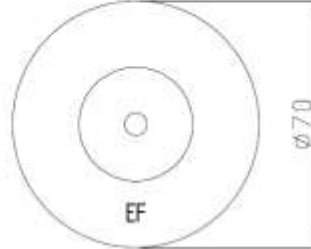
DVP-EF-7010D or EPM-70D-6,5-1,0



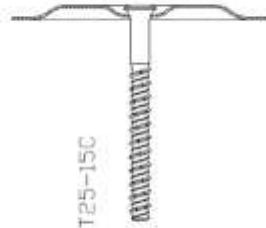
EFR-65xLL or
ERCS-65xLL-0-T25-15C



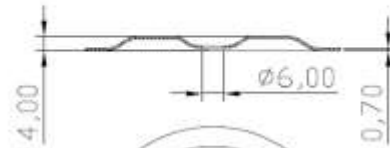
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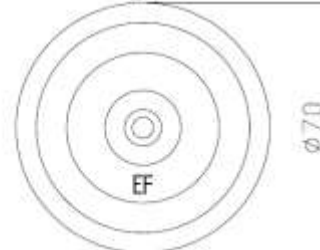
DVP-EF-7007H or EPM-70H-6,0-0,7



EFR-65xLL or
ERCS-65xLL-0-T25-15C



DR

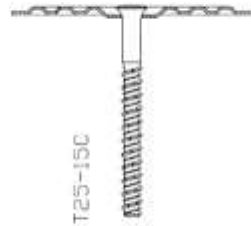


Eurofast Flat Roof Fasteners

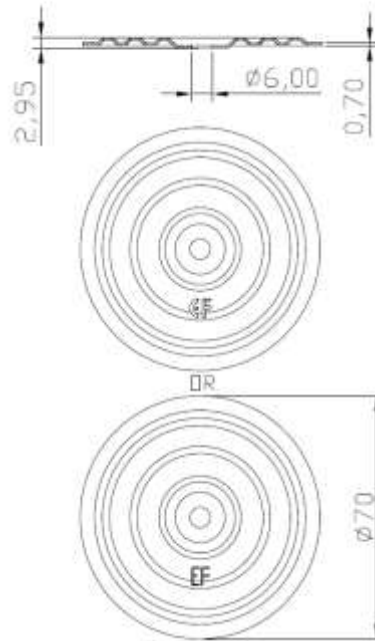
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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of European
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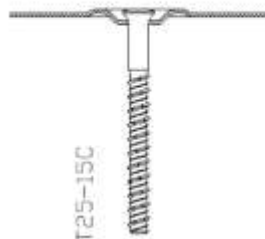
DVP-EF-7007N or EPM-70N-6,0-0.7



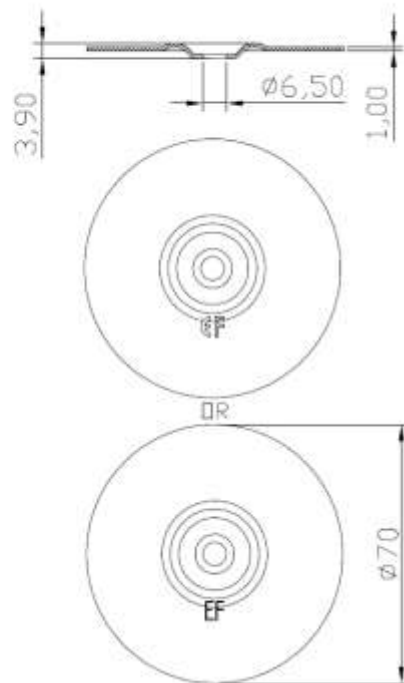
EFR-65xLL or
ERCS-65xLL-0-T25-15C



DVP-EF-7010N or EPM-70N-6,5-1.0



EFR-65xLL or
ERCS-65xLL-0-T25-15C

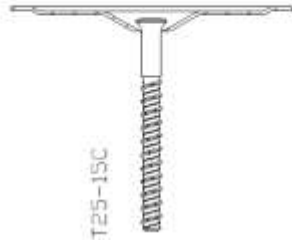


Eurofast Flat Roof Fasteners

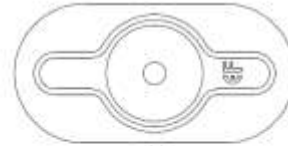
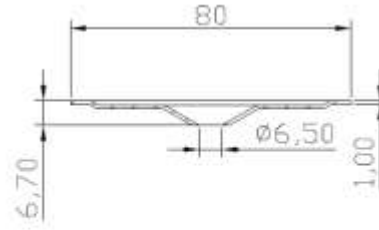
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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of European
Technical Assessment
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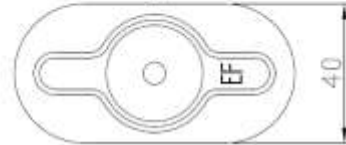
DVP-EF-8040D or EPM-8040D-6.5-1.0



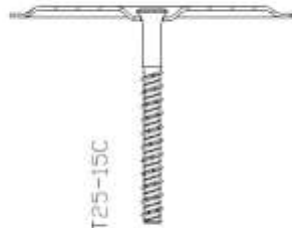
EFR-65xLL or
ERCS-65xLL-0-T25-15C



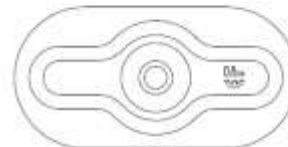
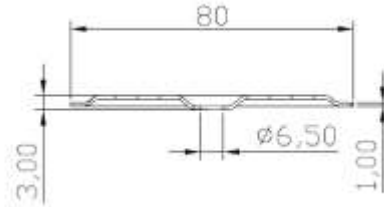
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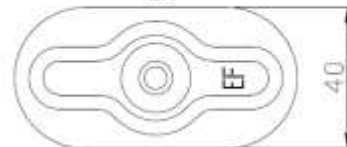
DVP-EF-8040N or EPM-8040N-6.5-1.0



EFR-65xLL or
ERCS-65xLL-0-T25-15C



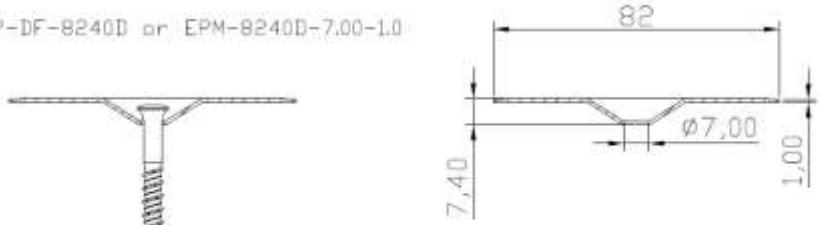
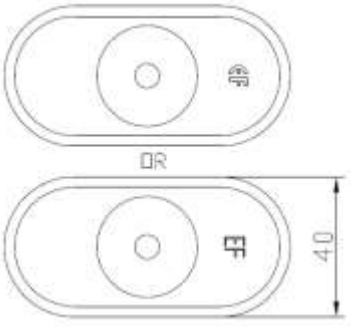
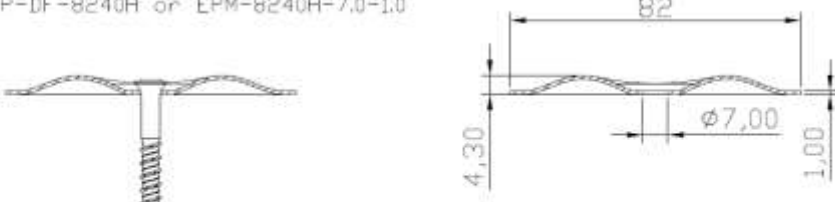
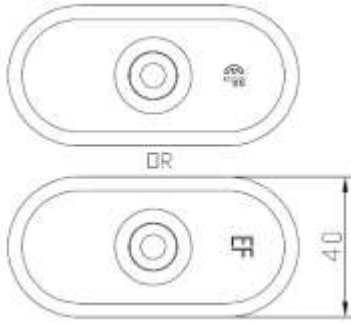
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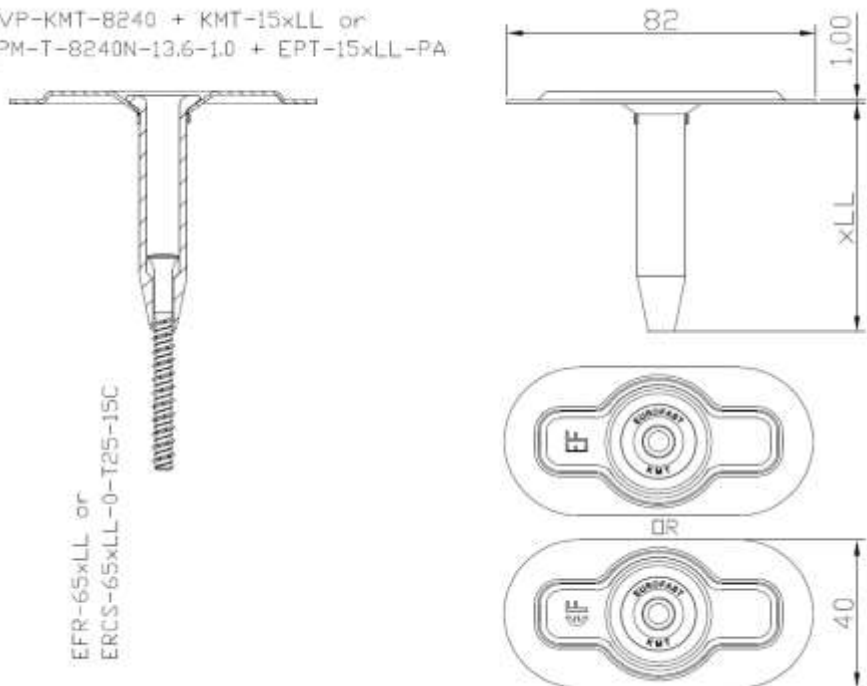
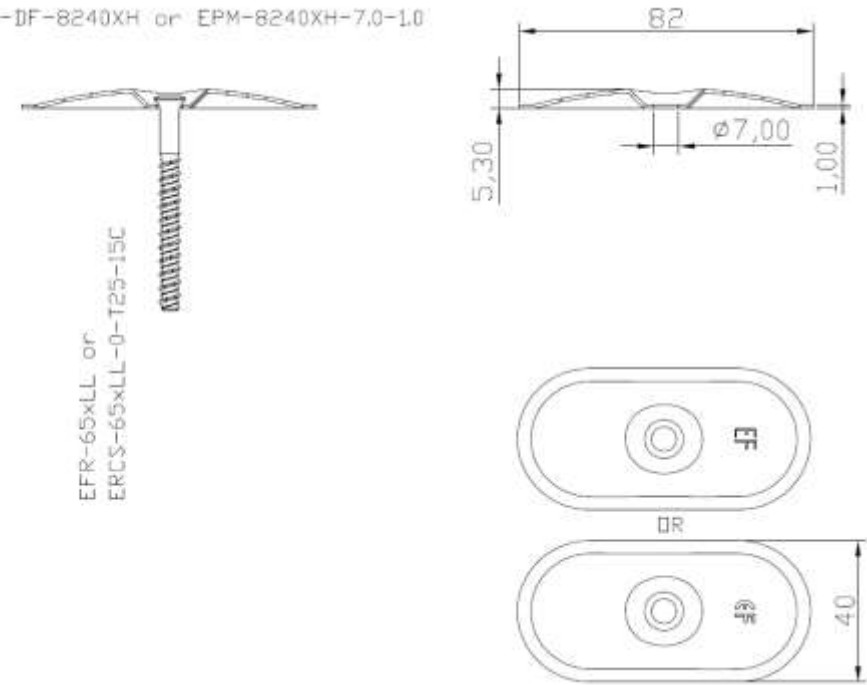


Eurofast Flat Roof Fasteners

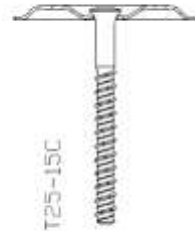
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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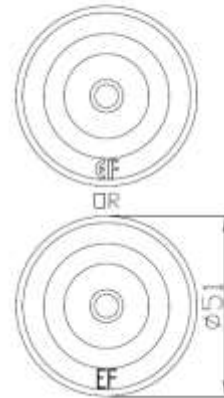
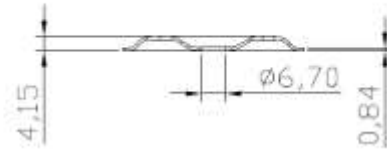
<p>DVP-DF-8240D or EPM-8240D-7.00-1.0</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p> 	
<p>DVP-DF-8240H or EPM-8240H-7.0-1.0</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p> 	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex O.14 of European Technical Assessment ETA-23/0651</p>
<p>EFR-65xLL (ERCS-65xLL-0-T25-15C)</p>	

<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13,6-1,0 + EPT-15xLL-PA</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	
<p>DVP-DF-8240XH or EPM-8240XH-7,0-1,0</p>  <p>EFR-65xLL or ERCS-65xLL-0-T25-15C</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex O.15 of European Technical Assessment ETA-23/0651</p>
<p>EFR-65xLL (ERCS-65xLL-0-T25-15C)</p>	

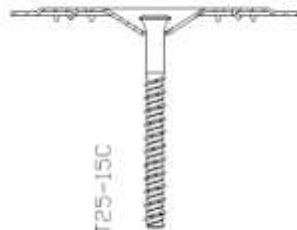
DVP-EF-51N or EPM-51N-6.7-0.84



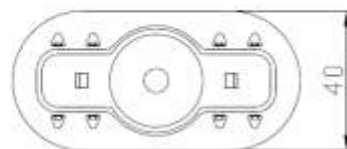
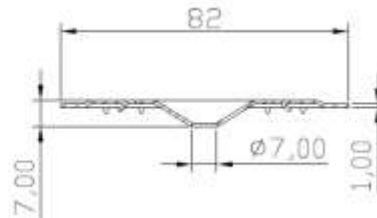
EFR-65xLL or
ERCS-65xLL-0-T25-15C



DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



EFR-65xLL or
ERCS-65xLL-0-T25-15C

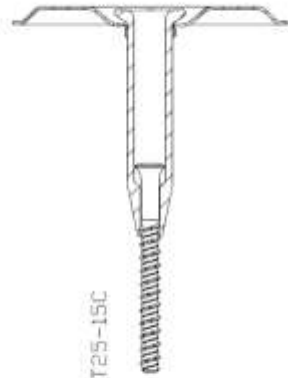


Eurofast Flat Roof Fasteners

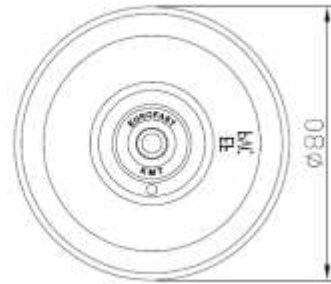
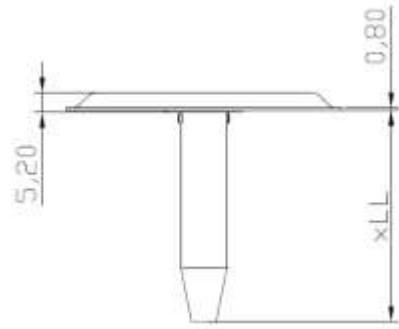
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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of European
Technical Assessment
ETA-23/0651

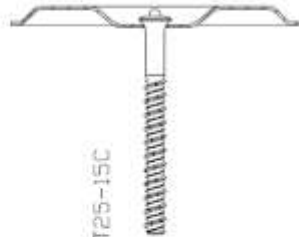
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or
 EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



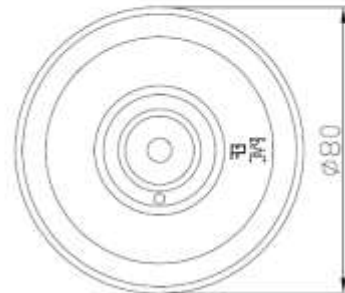
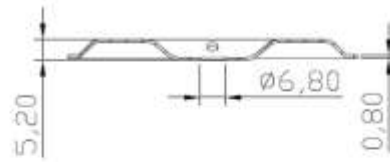
EFR-65xLL or
 ERCS-65xLL-0-T25-15C



EPM-IP-80-6.8-0.8



EFR-65xLL or
 ERCS-65xLL-0-T25-15C

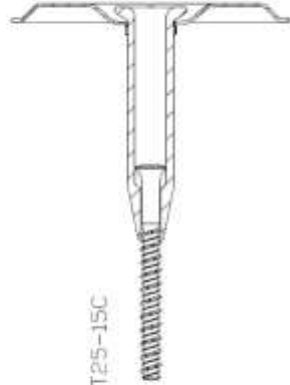


Eurofast Flat Roof Fasteners

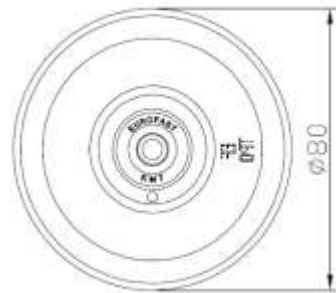
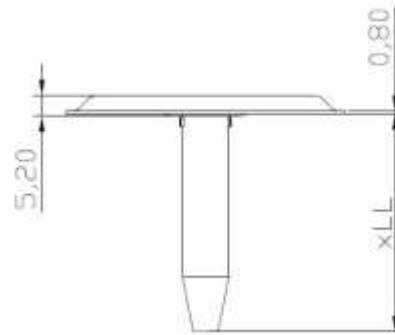
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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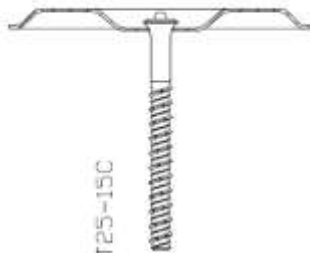
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or
EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



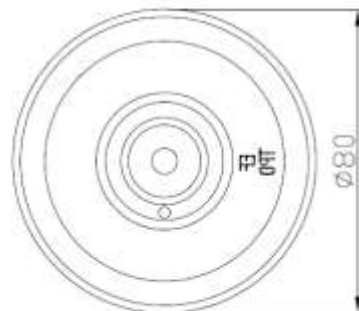
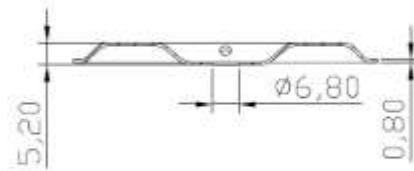
EFR-65xLL or
ERCS-65xLL-0-T25-15C



EPM-IT-80-6.8-0.8



EFR-65xLL or
ERCS-65xLL-0-T25-15C

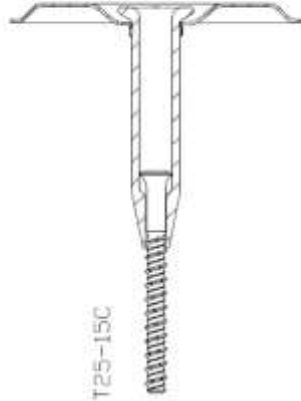


Eurofast Flat Roof Fasteners

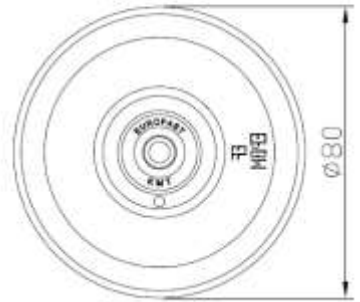
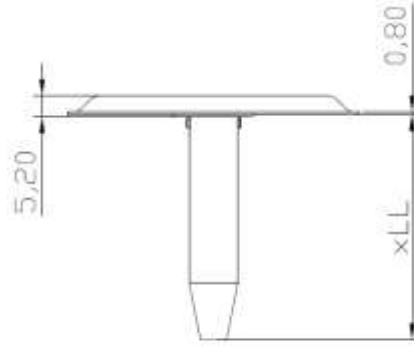
EFR-65xLL (ERCS-65xLL-0-T25-15C)

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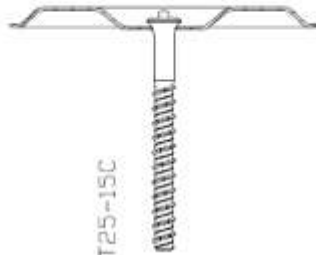
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or
EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



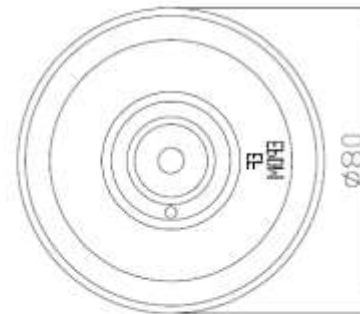
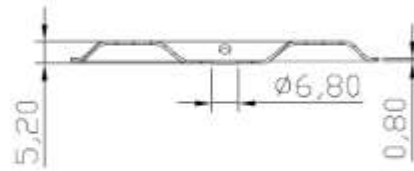
EFR-65xLL or
ERCS-65xLL-0-T25-15C



EPM-IE-80-6.8-0.8



EFR-65xLL or
ERCS-65xLL-0-T25-15C



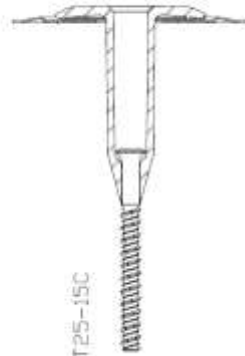
Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

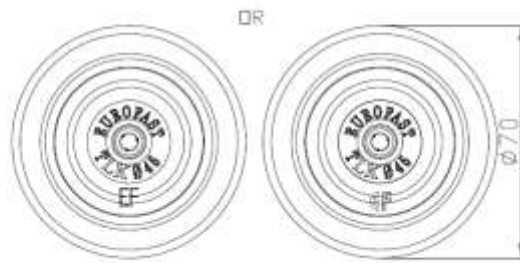
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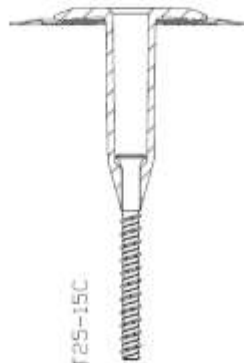
DVP-DL-70N + TLK-45xLL or
EPM-EDL-70N-20-0,5 + EPT-45xLL-PP



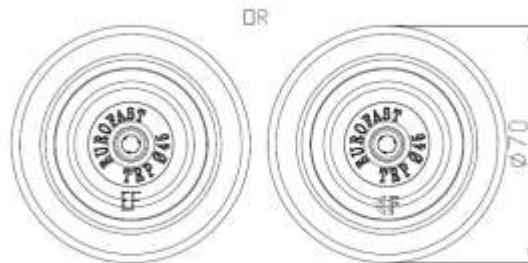
EFR-65xLL or
ERCS-65xLL-0-T25-15C



DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0,5 + EPT-45xLL-PA



EFR-65xLL or
ERCS-65xLL-0-T25-15C



Eurofast Flat Roof Fasteners

EFR-65xLL (ERCS-65xLL-0-T25-15C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)				
	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,2 mm)*	Concrete C20/25 (drill 5,5 mm)**	Concrete C25/30 (drill 5,5 mm)**
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)	3,76	4,85	3,67	4,02

* value also valid for holes drilled with 5,0 mm drills

** value also valid for holes drilled with 5,2 mm or 5,0 mm drills

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)					
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)	DVP-EF-5010D (EPM-50D-6.3-1.0)	DVP-EF-7007D (EPM-70D-6.0-0.7)	DVP-DF-7070D (EPM-7070D-7.0-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	DVP-EF-7010D (EPM-70D-6.5-1.0)	-	-	DVP-DF-8240D (EPM-8240D-7.0-1.0)
	-	DVP-EF-8040D (EPM-8040D-6.5-1.0)	-	-	DVP-DF-8240XH (EPM-8240XH-7.0-1.0)
	-	-	-	-	DVP-DFB-8240D (EPM-B-8240D-7.0-1.0)
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)	5,12	5,05	6,86	5,36	5,25

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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**Screw:**

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

Metal pressure plate:

DVP-EF-5010D	(EPM-50D-6.3-1.0)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)
DVP-EF-7007D	(EPM-70D-6.0-0.7)
DVP-EF-7010D	(EPM-70D-6.5-1.0)
DVP-EF-8040D	(EPM-8040D-6.5-1.0)
DVP-DF-8240D	(EPM-8240D-7.0-1.0)
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)
DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)

Termination bar:

EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Concrete C12/15, C20/25, C25/30 EN 206

Installation data:

Head type:	Hex Washer Head 8 mm
Effective anchoring depth h_{ef} :	≥ 25 mm
Drill diameter in concrete C12/15:	5,0 mm
Drill diameter in concrete C20/25:	5,2 or 5,5 mm
Drill diameter in concrete C25/30:	5,5 mm
Drilled hole depth:	$h_{ef} + 10$ mm
Installation force of installation tool:	15 kg + impact
Installation tool speed:	100 rpm

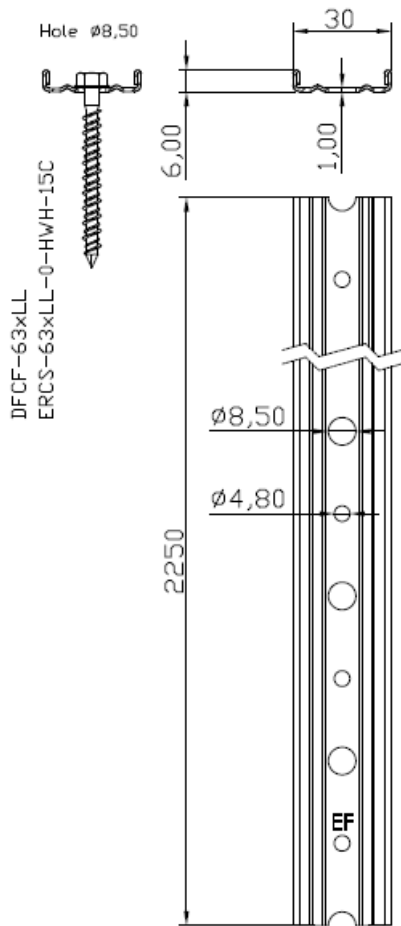
Eurofast Flat Roof Fasteners

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

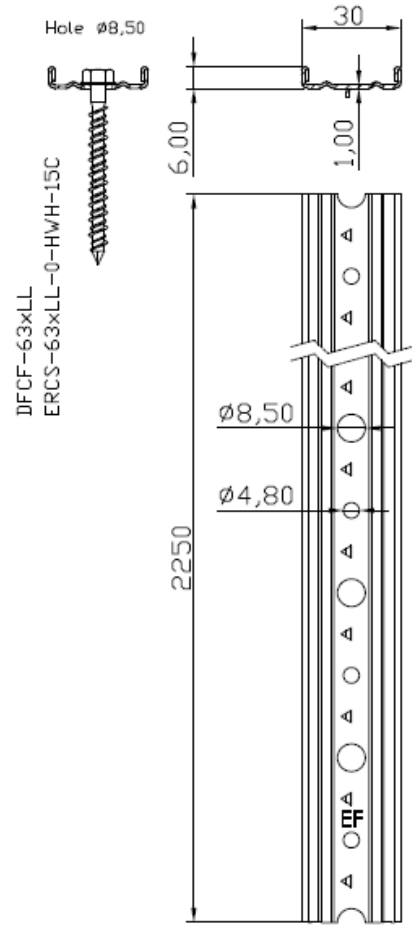
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0



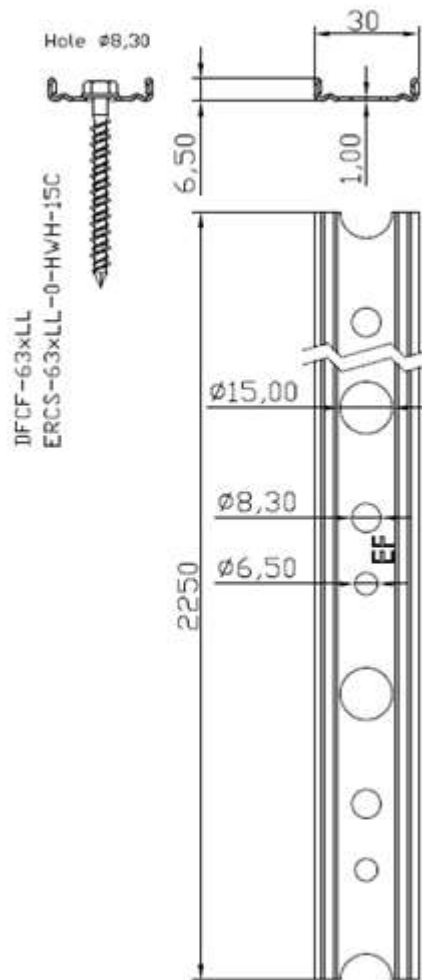
Eurofast Flat Roof Fasteners

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0



Eurofast Flat Roof Fasteners

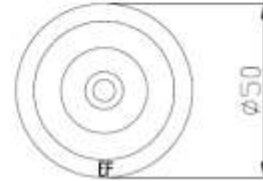
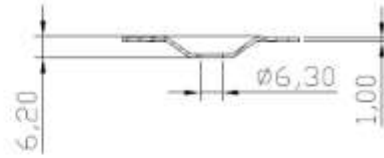
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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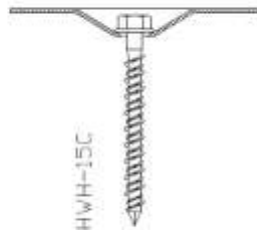
DVP-EF-5010D or EPM-50D-6.3-1.0



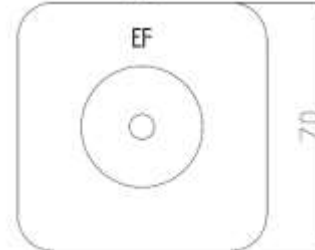
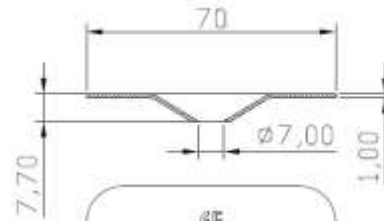
DFCF-63xLL
ERCS-63xLL-0-HWH-15C



DVP-DF-7070D or EPM-7070D-7.0-1.0



DFCF-63xLL
ERCS-63xLL-0-HWH-15C

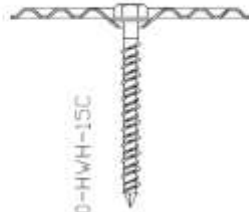


Eurofast Flat Roof Fasteners

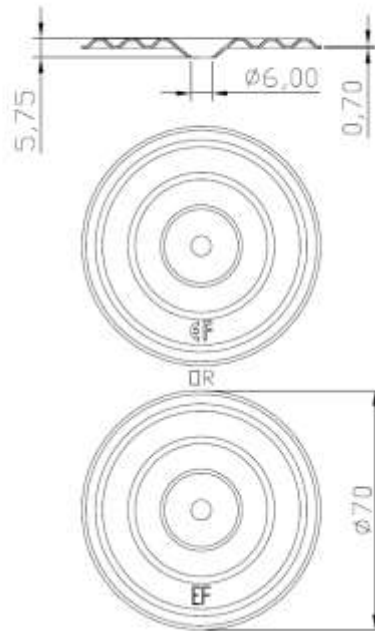
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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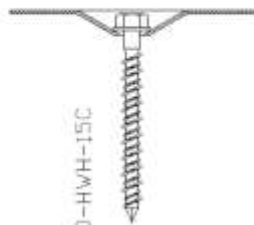
DVP-EF-7007D or EPM-70D-6.0-0.7



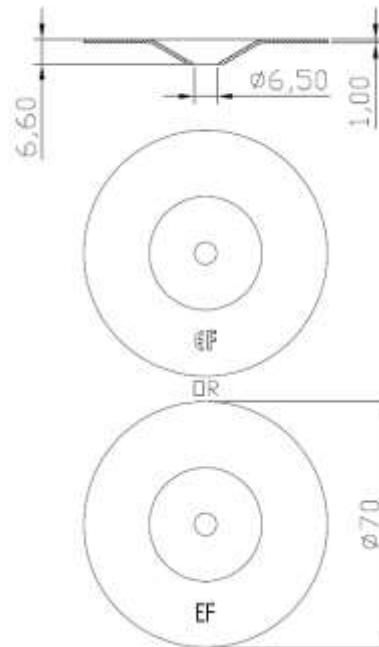
DFCF-63xLL
ERCS-63xLL-0-HWH-15C



DVP-EF-7010D or EPM-70D-6.5-1.0



DFCF-63xLL
ERCS-63xLL-0-HWH-15C

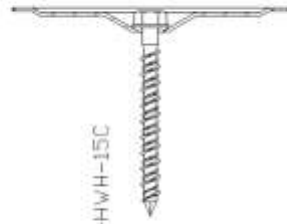


Eurofast Flat Roof Fasteners

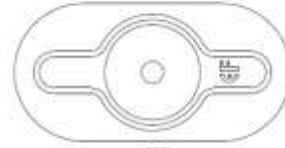
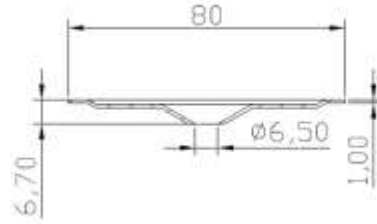
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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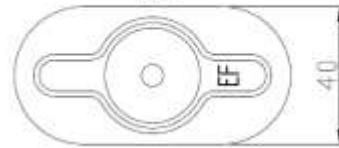
DVP-EF-8040D or EPM-8040D-6.5-1,0



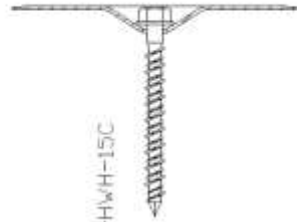
DFCF-63xLL
ERCS-63xLL-0-HWH-15C



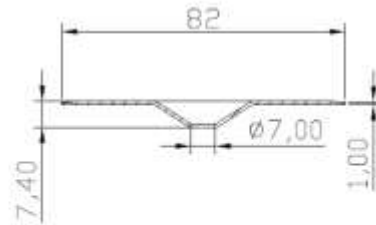
DR



DVP-DF-8240D or EPM-8240D-7.00-1,0



DFCF-63xLL
ERCS-63xLL-0-HWH-15C



DR

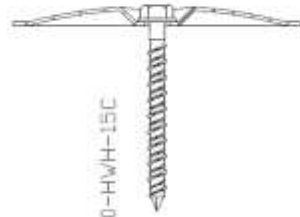


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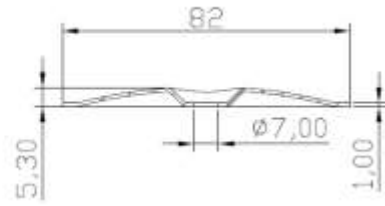
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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DVP-DF-8240XH or EPM-8240XH-7,0-1,0



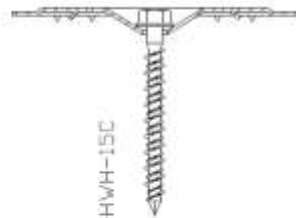
DFCF-63xLL
ERCS-63xLL-0-HWH-15C



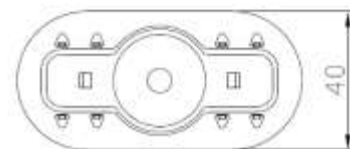
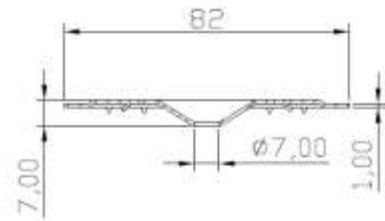
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DVP-DFB-8240D or EPM-B-8240D-7,0-1,0



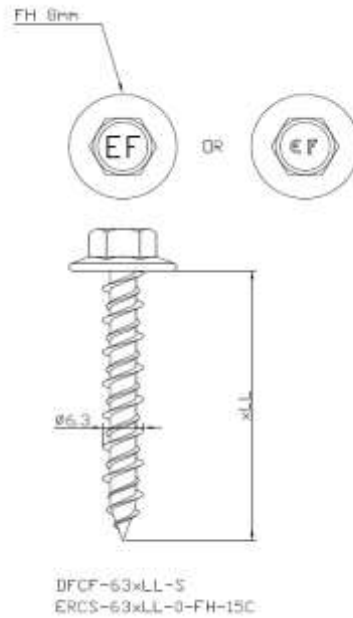
DFCF-63xLL
ERCS-63xLL-0-HWH-15C



Eurofast Flat Roof Fasteners

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)				
	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,2 mm)*	Concrete C20/25 (drill 5,5 mm)**	Concrete C25/30 (drill 5,5 mm)**
DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)	3,76	4,85	3,67	4,02

* value also valid for holes drilled with 5,0 mm drills

** value also valid for holes drilled with 5,2 mm or 5,0 mm drills

Characteristic Values of Axial Pull-Through** Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)		
	EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)	EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)
	EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)	-
DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)	5,12	5,05

** "Pull-over" according to CEN/TS 17659:2021

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DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

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Screw:

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

Termination bar:

EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)
 EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)
 EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

Substrate:

Concrete C12/15, C20/25, C25/30 EN 206

Installation data:

Head type:	Flange Head 8mm
Effective anchoring depth h_{ef} :	≥ 25 mm
Drill diameter in concrete C12/15:	5,0 mm
Drill diameter in concrete C20/25:	5,2 or 5,5 mm
Drill diameter in concrete C25/30:	5,5 mm
Drilled hole depth:	$h_{ef} + 10$ mm
Installation force of installation tool:	15 kg + impact
Installation tool speed:	100 rpm

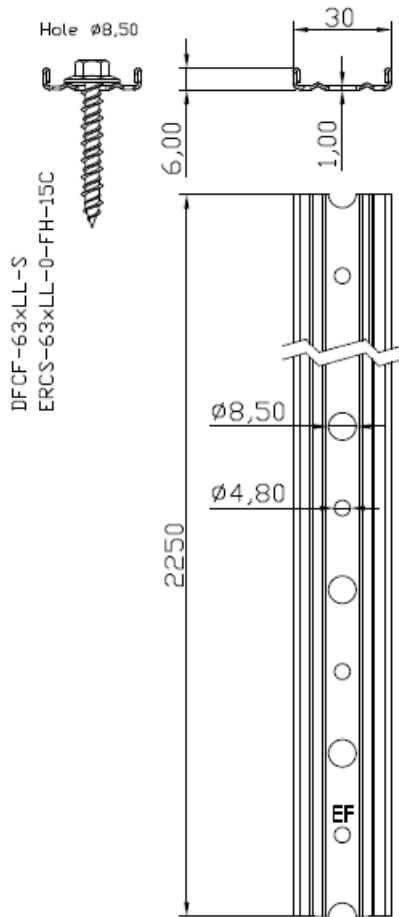
Eurofast Flat Roof Fasteners

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

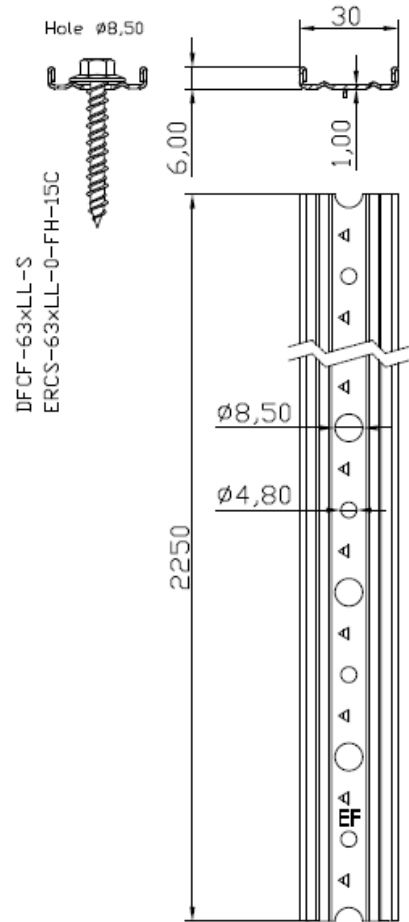
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EDF-BAR F or
ETM-2250-30-4.8-8.5-1.0



EDF-BAR FB or
ETM-B-2250-30-4.8-8.5-1.0



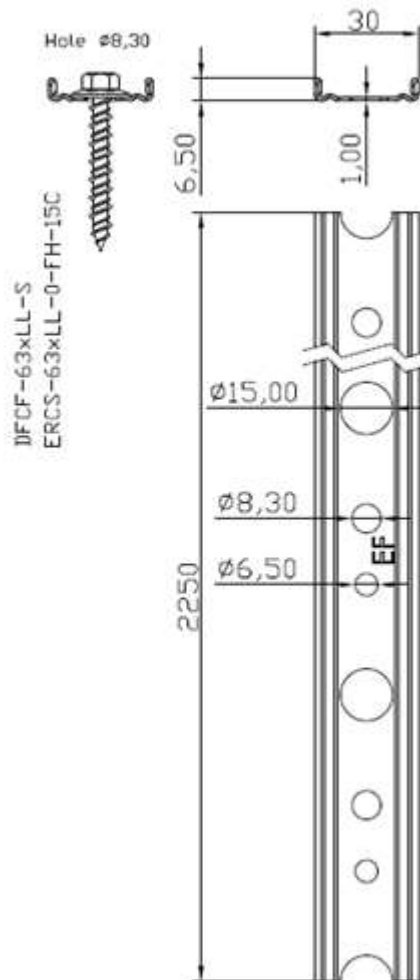
Eurofast Flat Roof Fasteners

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

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EDF-BAR-F-TUBE or
ETM-T-2250-30-6.5-8.3-15.0-1.0

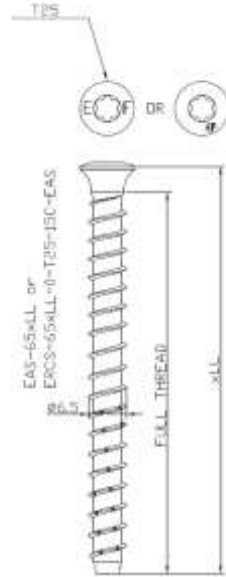


Eurofast Flat Roof Fasteners

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)				
	Concrete C12/15 (drill 5,0 mm)	Concrete C20/25 (drill 5,2 mm)*	Concrete C20/25 (drill 5,5 mm)**	Concrete C25/30 (drill 5,5 mm)**
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)	2,59	3,34	2,85	3,12

* value also valid for holes drilled with 5,0 mm drills

** value also valid for holes drilled with 5,2 mm or 5,0 mm drills

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)			
	BIO-45xLL (EPT-45xLL-BIO)	TLK-45xLL (EPT-45xLL-PP)	HTLK-45xLL (EPT-O-45xLL-PP)
	TRP-45xLL (EPT-45xLL-PA)	TLK-75xLL (EPT-75xLL-PP)	-
	BTRP-45xLL (EPT-B-45xLL-PA)	DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)	-
	TWP-8040xLL (EPT-8040xLL-PA)	-	-
	EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)	-	-
	DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)	-	-
	EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)	-	-
	DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)	-	-
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)	2,50	1,74	1,77

* "Pull-over" according to CEN/TS 17659:2021

Eurofast Flat Roof Fasteners

EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

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Screw:

EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

Metal pressure plate:

DVP-KMT-8240 + KMT-15xLL (EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
 EPM-T-IP-80-13.6-0.8 + KMT-15xLL (EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
 EPM-T-IT-80-13.6-0.8 + KMT-15xLL (EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA)
 EPM-T-IE-80-13.6-0.8 + KMT-15xLL (EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA)
 DVP-DL-70N + TRP-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PA)
 DVP-DL-70N + TLK-45xLL (EPM-EDL-70N-20-0.5 + EPT-45xLL-PP)

Pressure plate with tube:

BIO-45xLL (EPT-45xLL-BIO)
 TRP-45xLL (EPT-45xLL-PA)
 BTRP-45xLL (EPT-B-45xLL-PA)
 TWP-8040xLL (EPT-8040xLL-PA)
 TLK-45xLL (EPT-45xLL-PP)
 HTLK-45xLL (EPT-O-45xLL-PP)
 TLK-75xLL (EPT-75xLL-PP)

Termination bar:

EDF-BAR F-TUBE + KMT-15xLL (ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA)

Substrate:

Concrete C12/15, C20/25, C25/30 EN 206

Installation data:

Head type: Raised Bugle Head
 Recess: TX25
 Effective anchoring depth h_{ef} : ≥ 25 mm
 Drill diameter in concrete C12/15: 5,0 mm
 Drill diameter in concrete C20/25: 5,2 or 5,5 mm
 Drill diameter in concrete C25/30: 5,5 mm
 Drilled hole depth: $h_{ef} + 10$ mm
 Installation force of installation tool: 15 kg + impact
 Installation tool speed: 100 rpm

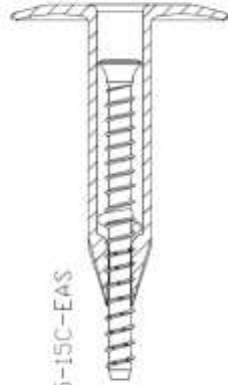
Eurofast Flat Roof Fasteners

EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

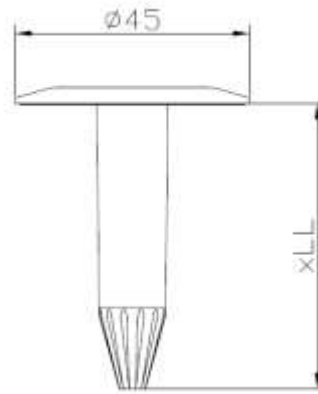
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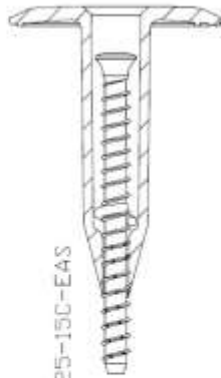
BIO-45xLL or EPT-45xLL-BIO



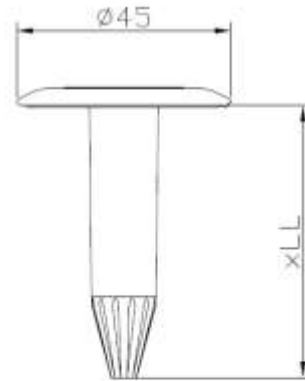
EAS-65xLL or
ERCS-65xLL-0-T25-15C-EAS



TRP-45xLL or EPT-45xLL-PA



EAS-65xLL or
ERCS-65xLL-0-T25-15C-EAS

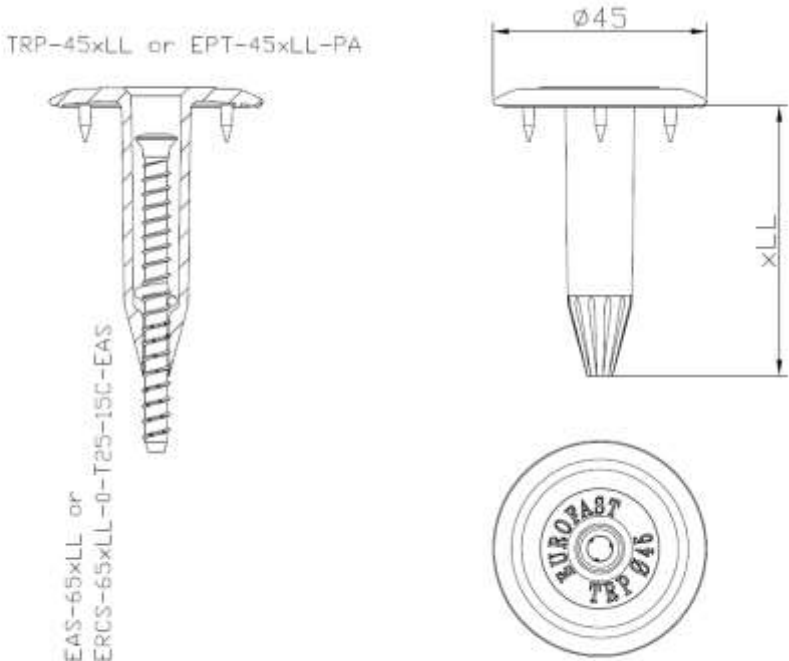
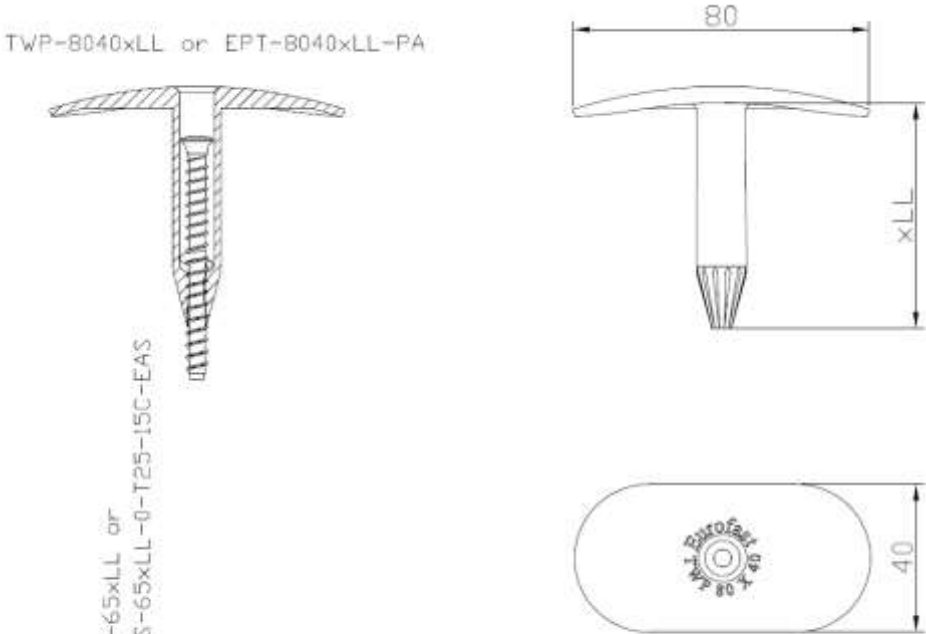


Eurofast Flat Roof Fasteners

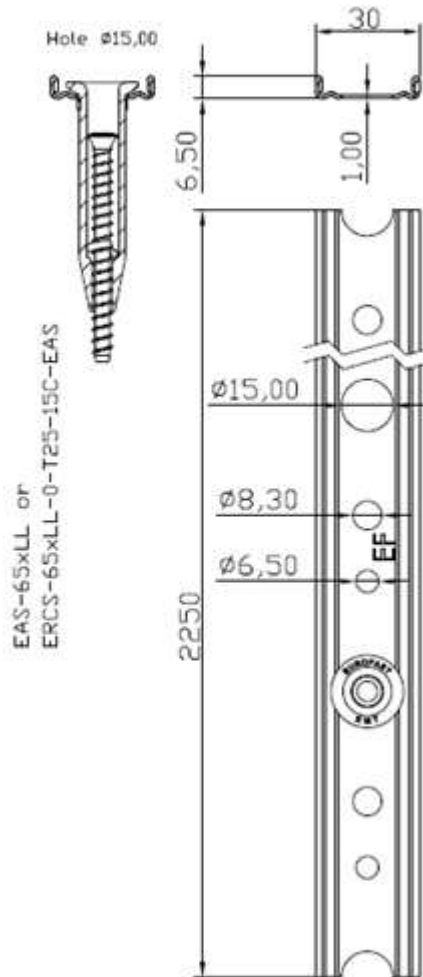
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

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<p>TRP-45xLL or EPT-45xLL-PA</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>TWP-8040xLL or EPT-8040xLL-PA</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex S.4 of European Technical Assessment ETA-23/0651</p>
<p>EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)</p>	

EDF-BAR-F-TUBE + KMT-15xLL or
 ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA

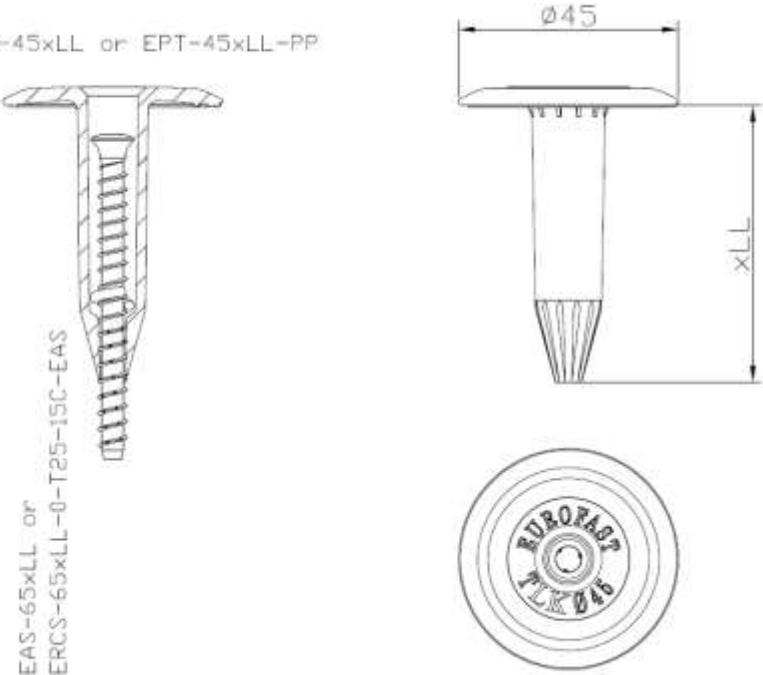
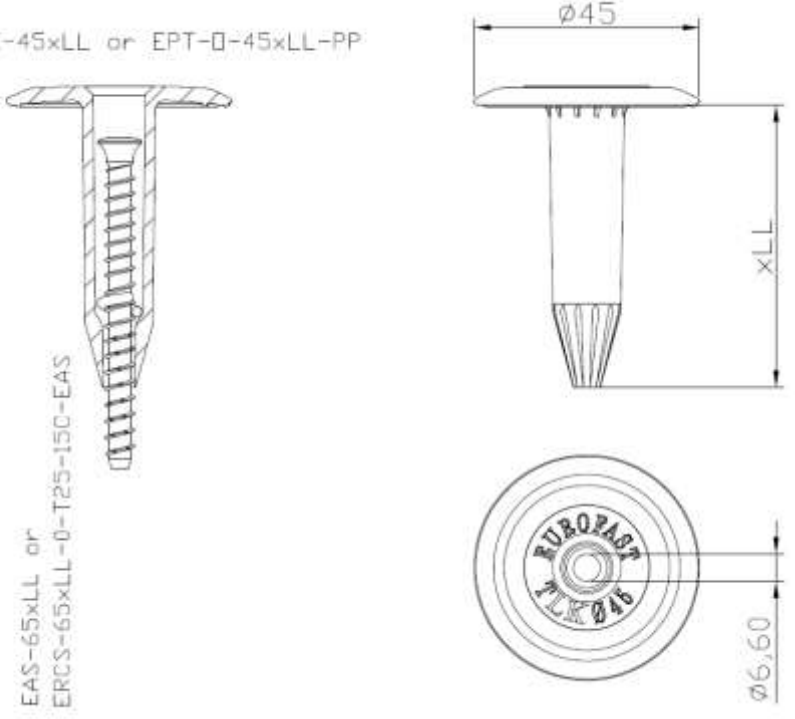


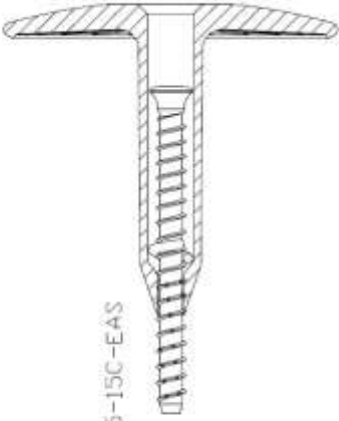
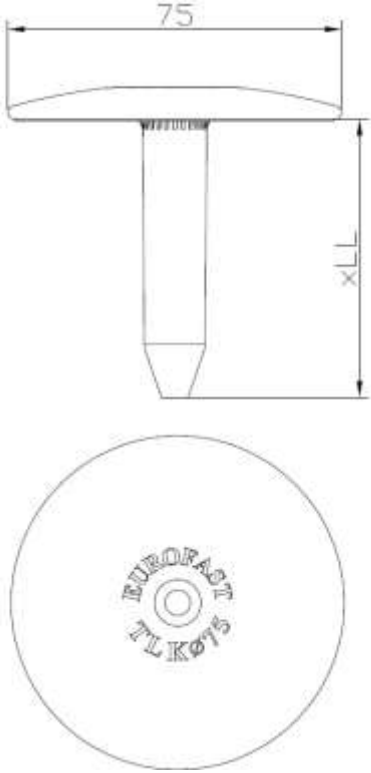
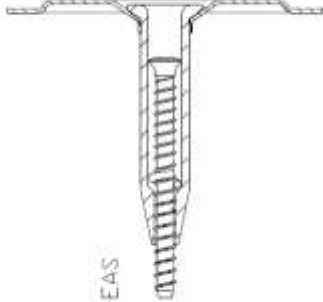
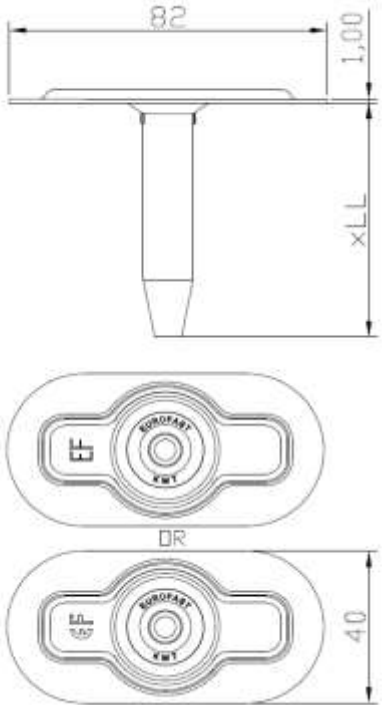
Eurofast Flat Roof Fasteners

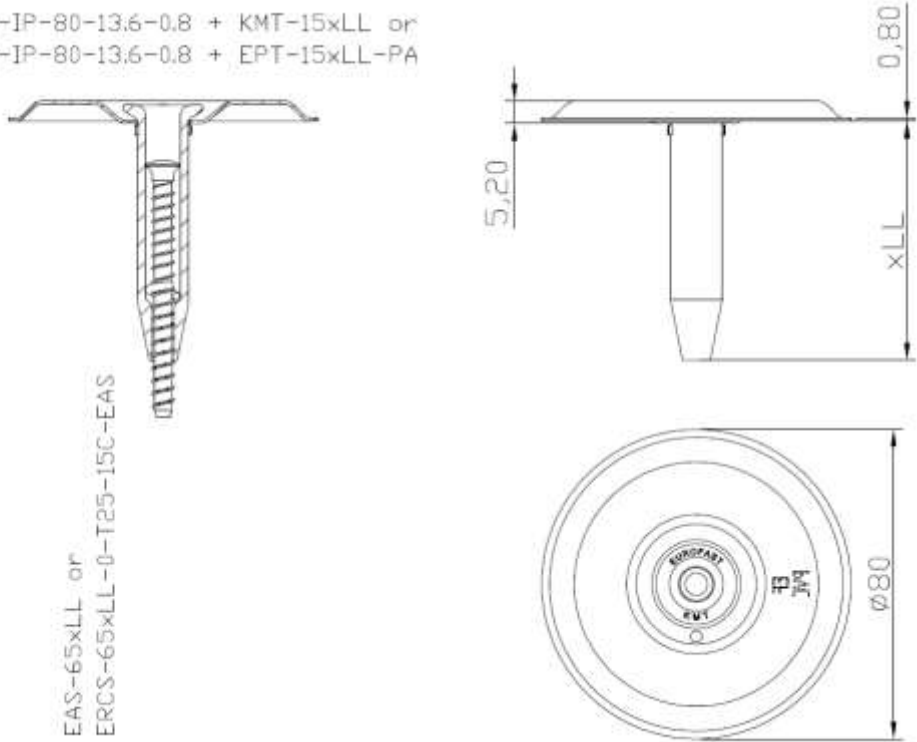
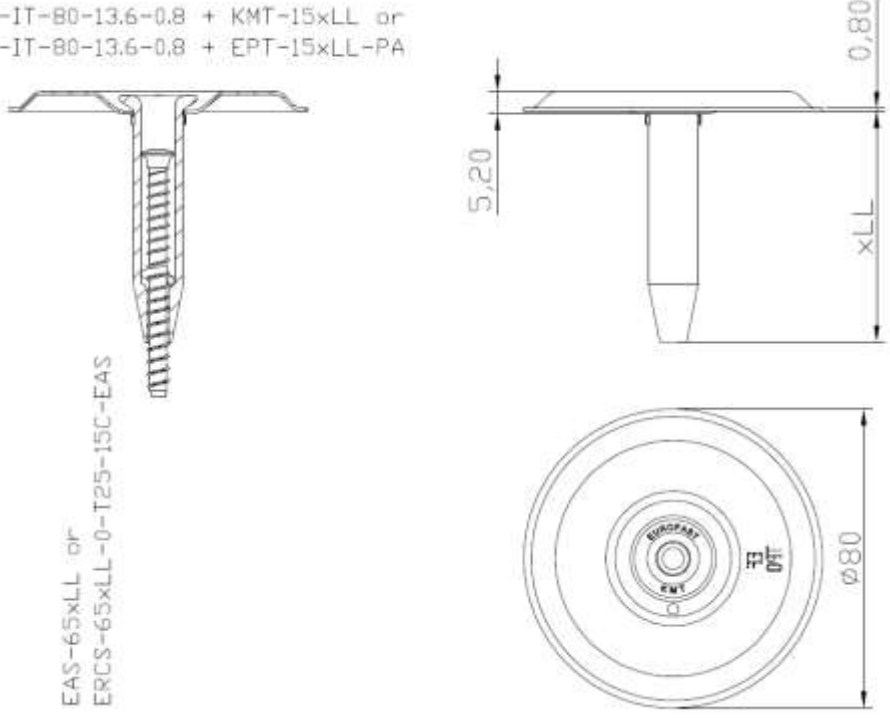
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

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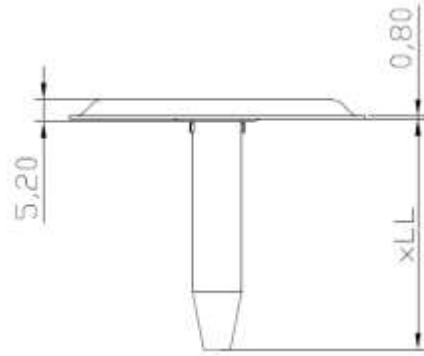
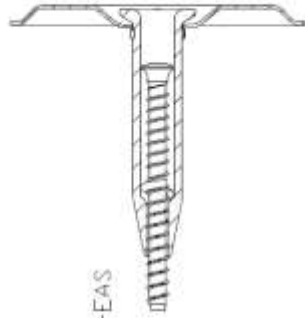
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<p>TLK-45xLL or EPT-45xLL-PP</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>HTLK-45xLL or EPT-□-45xLL-PP</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex S.6 of European Technical Assessment ETA-23/0651</p>
<p>EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)</p>	

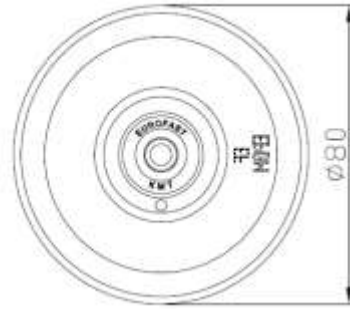
<p>TLK-75xLL or EPT-75xLL-PP</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>DVP-KMT-8240 + KMT-15xLL or EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex S.7 of European Technical Assessment ETA-23/0651</p>
<p>EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)</p>	

<p>EPM-T-IP-80-13,6-0,8 + KMT-15xLL or EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>EPM-T-IT-80-13,6-0,8 + KMT-15xLL or EPM-T-IT-80-13,6-0,8 + EPT-15xLL-PA</p>  <p>EAS-65xLL or ERCS-65xLL-0-T25-15C-EAS</p>	
<p>Eurofast Flat Roof Fasteners</p>	<p>Annex S.8 of European Technical Assessment ETA-23/0651</p>
<p>EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)</p>	

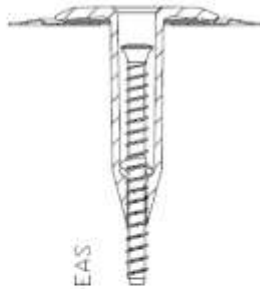
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or
EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



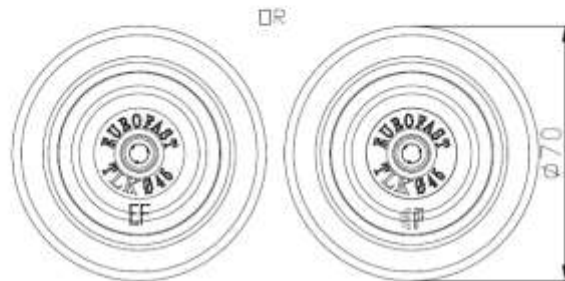
EAS-65xLL or
ERCS-65xLL-0-T25-15C-EAS



DVP-DL-70N + TLK-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



EAS-65xLL or
ERCS-65xLL-0-T25-15C-EAS



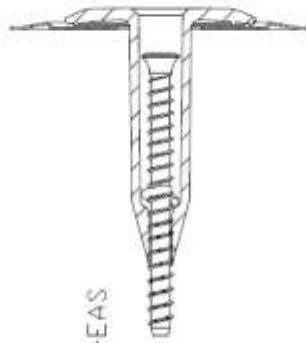
Eurofast Flat Roof Fasteners

EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

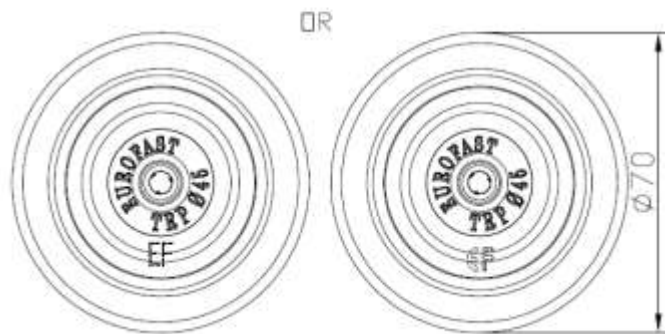
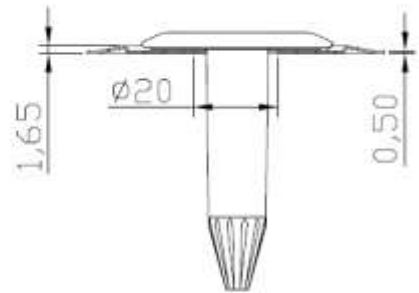
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DVP-DL-70N + TRP-45xLL or
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



EAS-65xLL or
ERCS-65xLL-0-T25-15C-EAS

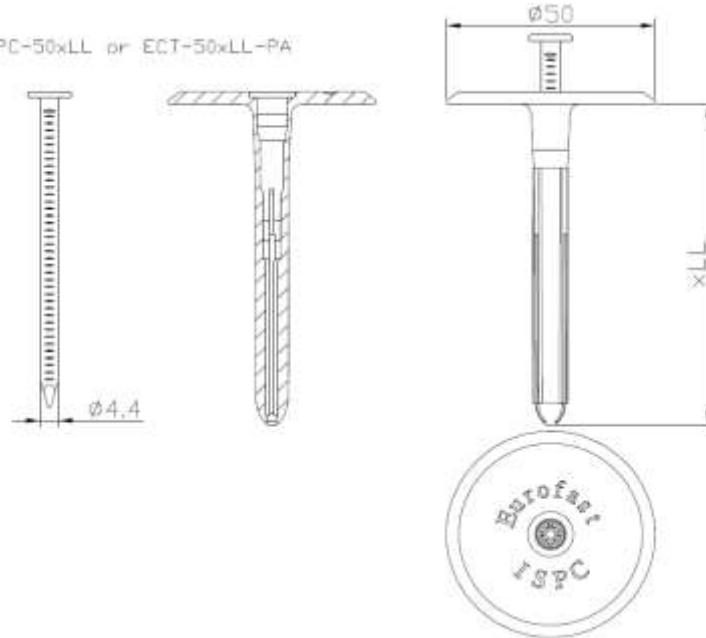


Eurofast Flat Roof Fasteners

EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

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ISPC-50xLL or ECT-50xLL-PA



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)			
	Concrete C12/15 (drill 8,0 mm)	Concrete C20/25 (drill 8,0 mm)	Concrete C25/30 (drill 8,0 mm)
ISPC-50xLL (ECT-50xLL-PA)	2,02	2,61	2,85

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)		
	DVP-ISPC 70N	(EPM-ECT-70N-12.0-0.5)
ISPC-50xLL (ECT-50xLL-PA)	3,15	

* "Pull-over" according to CEN/TS 17659:2021

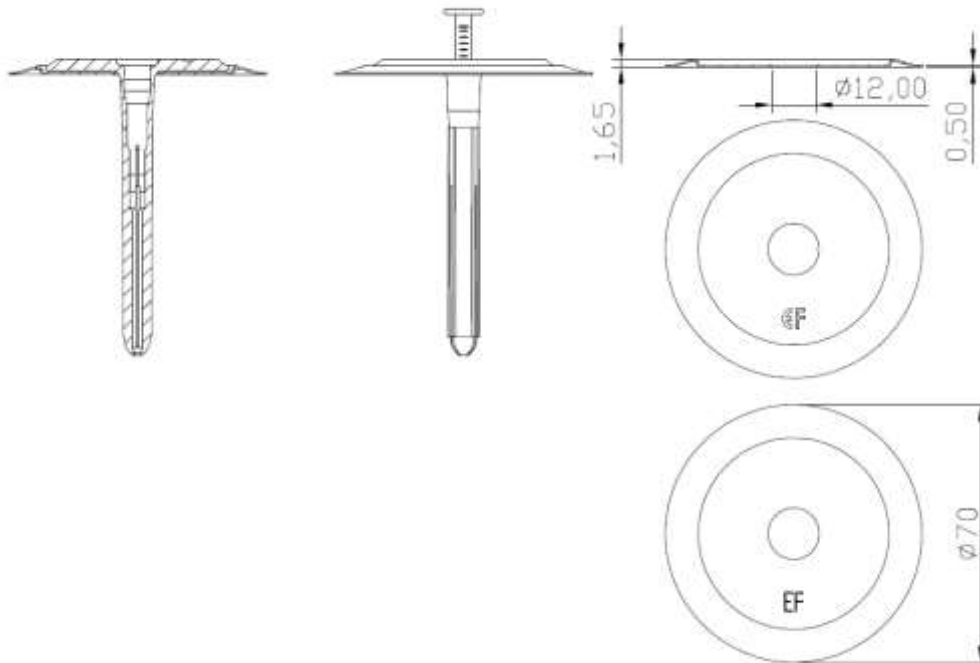
Screw:	ISPC-50xLL	(ECT-50xLL-PA)
Metal pressure plate:	DVP-ISPC 70N	(EPM-ECT-70N-12.0-0.5)
Substrate:	Concrete	C12/15, C20/25, C25/30 EN 206
Installation data:	Effective anchoring depth h_{ef} :	≥ 25 mm
	Drill diameter:	8,0 mm
	Drilled hole depth in concrete:	$h_{ef} + 15$ mm
	Installation tool:	hammer

Eurofast Flat Roof Fasteners

ISPC-50xLL (ECT-50xLL-PA)

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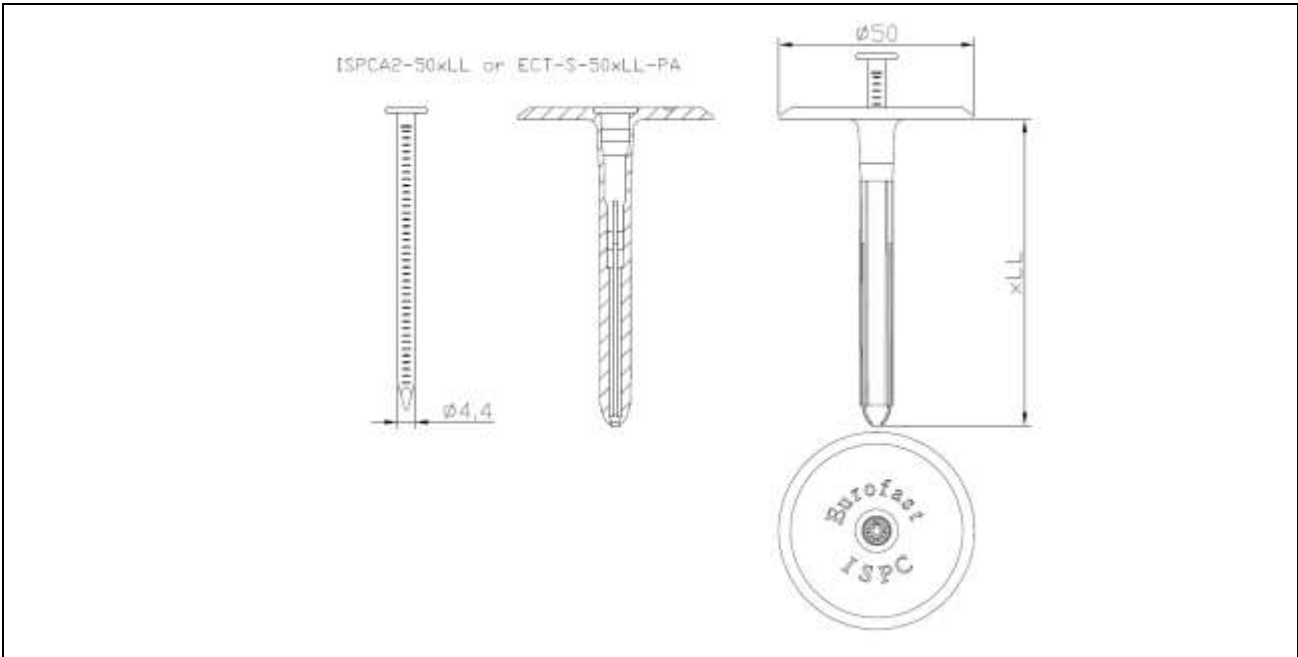
ISPC-50xLL + DVP-ISPC 70N or
ECT-50xLL-PA + EPM-ECT-70N-12,0-0,5



Eurofast Flat Roof Fasteners

ISPC-50xLL (ECT-50xLL-PA)

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Characteristic Values of Axial Pull-Out Resistance [kN] (according to Fig. 3 of EAD 030351-00-0402)			
	Concrete C12/15 (drill 8,0 mm)	Concrete C20/25 (drill 8,0 mm)	Concrete C25/30 (drill 8,0 mm)
ISPCA2-50xLL (ECT-S-50xLL-PA)	2,02	2,61	2,85

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Fig. 4 and 5 of EAD 030351-00-0402)	
	DVP-ISPC 70N (EPM-ECT-70N-12.0-0.5)
ISPCA2-50xLL (ECT-S-50xLL-PA)	3,15

* "Pull-over" according to CEN/TS 17659:2021

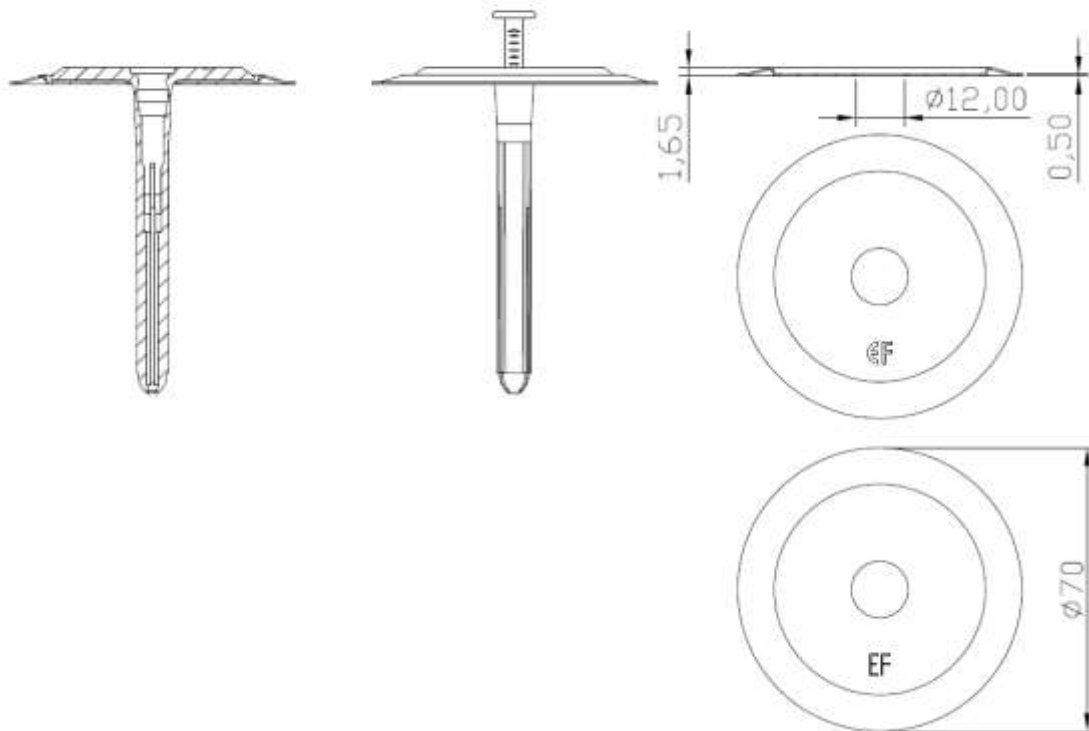
Screw:	
ISPCA2-50xLL	(ECT-S-50xLL-PA)
Metal pressure plate:	
DVP-ISPC 70N	(EPM-ECT-70N-12.0-0.5)
Substrate:	
Concrete	C12/15, C20/25, C25/30 EN 206
Installation data:	
Effective anchoring depth h_{ef} :	≥ 25 mm
Drill diameter:	8,0 mm
Drilled hole depth:	$h_{ef} + 15$ mm
Installation tool:	hammer

Eurofast Flat Roof Fasteners

ISPCA2-50xLL (ECT-S-50xLL-PA)

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ISPCA2-50xLL + DVP-ISPC 70N or
ECT-S-50xLL-PA + EPM-ECT-70N-12.0-0.5



Eurofast Flat Roof Fasteners

ISPCA2-50xLL (ECT-S-50xLL-PA)

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