



## Designated according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 (as amended 2022)

UK Technical Assessment	UKTA-0836-24/7085 of 24/01/2024
Technical Assessment Body issuing the UK Technical Assessment:	British Board of Agrément
Trade name of the construction product:	Eurofast Flat Roof Fasteners
Product family to which the construction product belongs:	Product code 03 Fasteners for flexible roof waterproofing systems
Manufacturer:	Van Roij Fasteners Europe B.V. (EUROFAST / EUROFAST GROUP) Indumastraat 18 5753 RJ Deurne Netherlands
Manufacturing plant(s):	Van Roij Fasteners Europe B.V. plants
This UK Technical Assessment contains:	321 pages including 21 Annexes which form an integral part of this Assessment
This UK Technical Assessment is issued in accordance with The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 (as amended 2022) on the basis of:	UKAD 030351-00-0402 <i>Systems of mechanically fastened flexible roof waterproofing sheets</i>

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## **1. Technical description of the product**

Eurofast Flat Roof Fasteners are mechanical fasteners comprising 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 UK Technical Assessment.

## **2. Specification of the intended use(s) in accordance with the applicable UK Assessment Document (hereinafter UKAD)**

Eurofast Flat Roof Fasteners are intended to be used for flexible roof waterproofing systems according to UKAD 030351-00-0402. The product can be used on steel or aluminium sheets, concrete, autoclaved aerated concrete, OSB/3 sheets, chipboards, plywood and timber substrates. 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 UK 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 UKAD 030351-00-0402 should be covered by a separate UKTA.

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

### **3.1. Mechanical resistance and stability (BWR 1)**

Not applicable

### **3.2. Safety in case of fire (BWR 2)**

Not applicable

### **3.3. Health, hygiene and the environment (BWR 3)**

Not applicable

### **3.4. Safety and accessibility in use (BWR 4)**

#### **3.4.1 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.

#### **3.4.2 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.

#### **3.4.3 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.

#### **3.4.4 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 SO<sub>2</sub> do not show more than 15% surface corrosion.

#### **3.4.5 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.

#### **3.5. Protection against noise (BWR 5)**

Not applicable

#### **3.6. Energy economy and heat retention (BWR 6)**

Not applicable

#### **3.7. Sustainable use of natural resources (BWR 7)**

Performance not assessed

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

#### **4.1. System of assessment and verification of constancy of performance**

According to UKAD No. 030351-00-0402 and Annex V of the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 (as amended 2022) 305/2011 as brought into UK law and amended, the system of assessment and verification of constancy of performance (AVCP) 2+ applies.

### **5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable UKAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with the British Board of Agrément and made available to the UK Approved Bodies involved in the conformity attestation process.

#### **5.1. UKCA marking for the product/ system must contain the following information:**

- Identification number of the Approved Body
- Name/ registered address of the manufacturer of the product/ system
- Marking including date of Marking and the intended use as stated in the Designated technical specification
- Unique identification code of the product type
- The reference number of the Declaration of Performance
- The level or class of the performance declared
- The reference to the Designated technical specification applied
- UKTA number.

On behalf of the British Board of Agrément



Date of Issue: 24 January 2024

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Chief Executive Officer



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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
<b>Eurofast Flat Roof Fasteners</b>				<b>Annex Info.1</b>		
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-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	-	X				X
EDS-BZTHD-48xLL / EDS-BGTHD-48xLL	ERSS-48xLL-3-HWH-15C / ERSS-48xLL-3-HWH-15C-C	-	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		

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex Info.2</b>
Substrates	

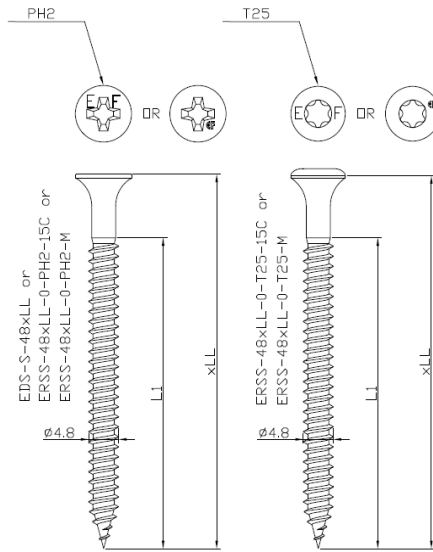
Product keys for metal pressure plates and pressure plates tube supplied as pre-assembled combinations with various screws.								
Product key				Alternative product key				
Metal pressure plates or pressure plates with tube		Screw	Pre-assembled combination	Metal pressure plates or pressure plates with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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex Info.3</b>
Pre-assembled combinations	



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)						
Steel S320GD*						
t [mm]	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 Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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

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.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.2</b>
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)	

**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)
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

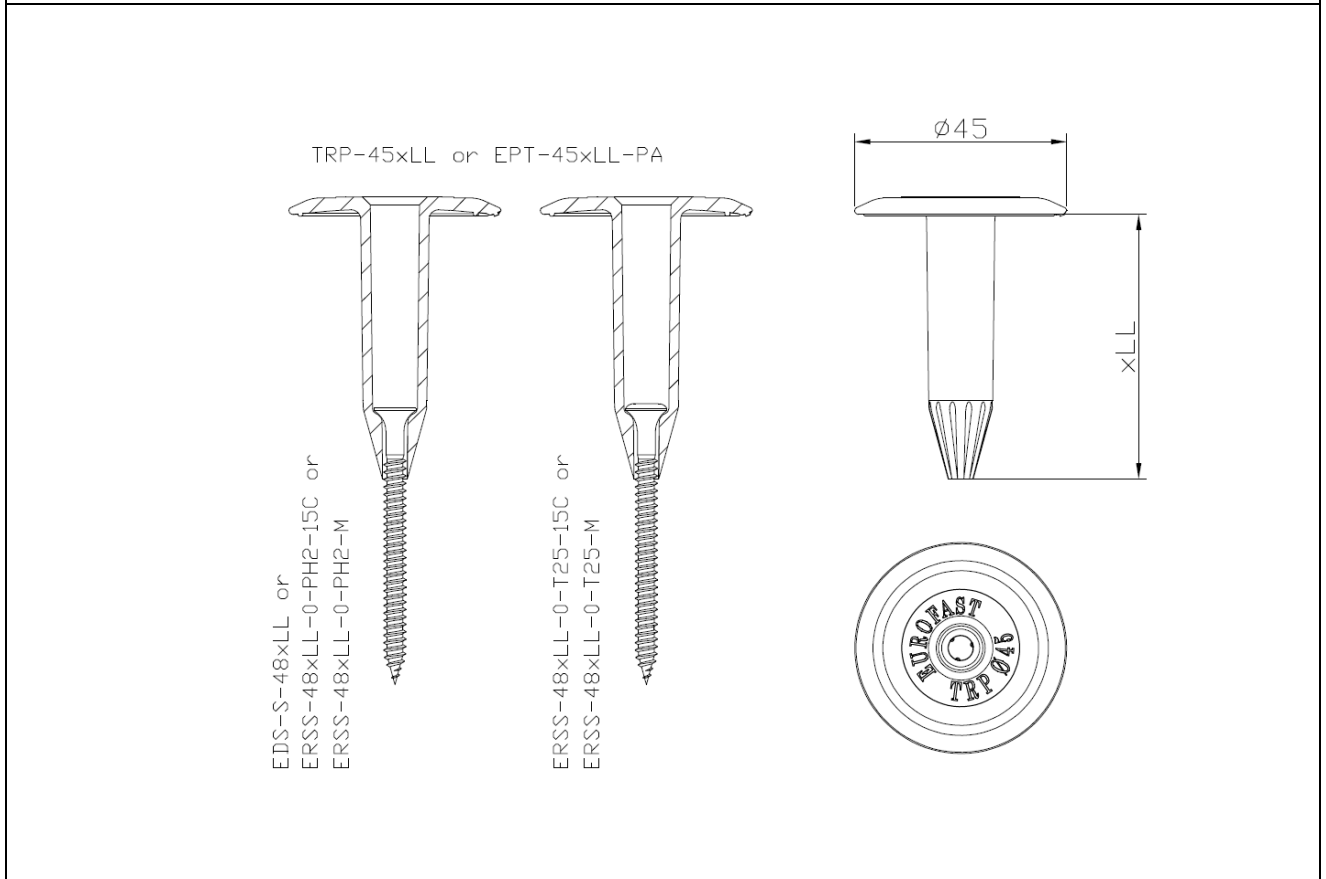
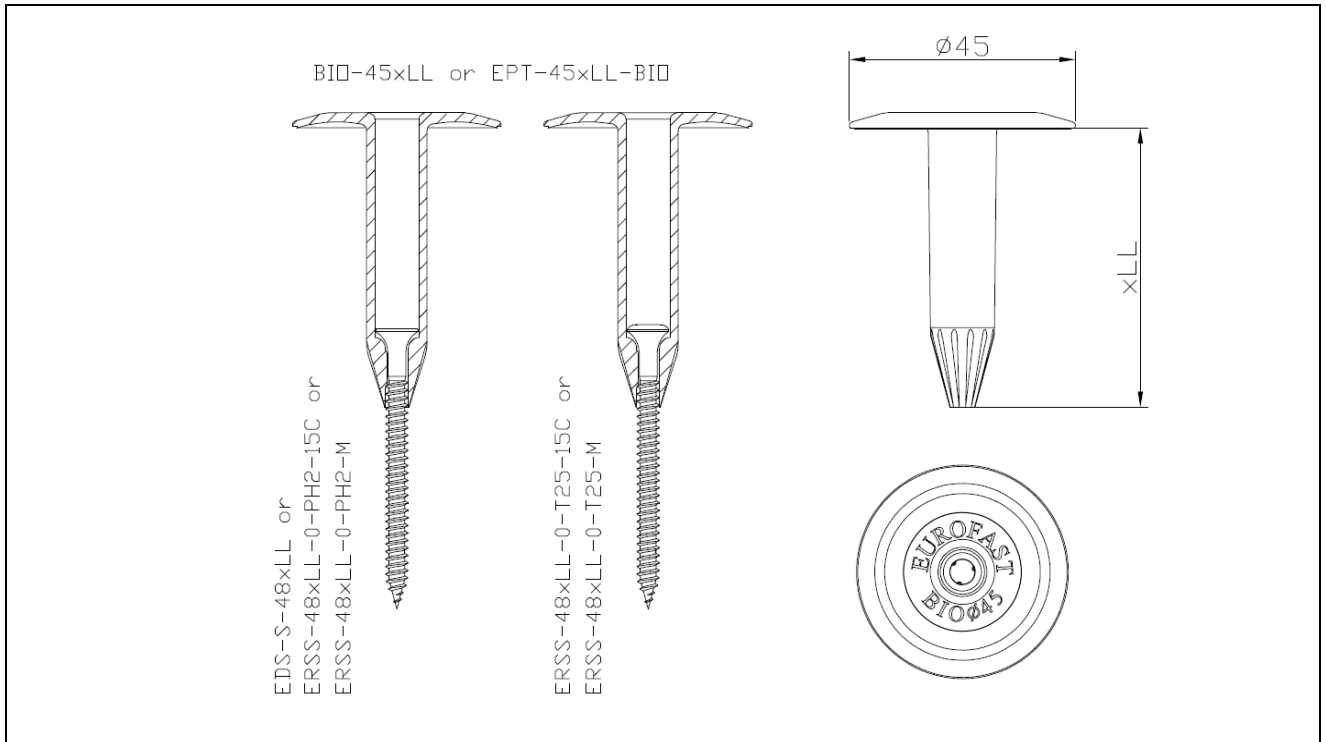
**Installation data:**

Max. drilling capacity in steel substrate:	0,88 mm
HUKAD type:	Bugle HUKAD / Raised Bugle HUKAD
Recess:	PH2 / TX25
Fixing in steel substrate:	Minimum 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

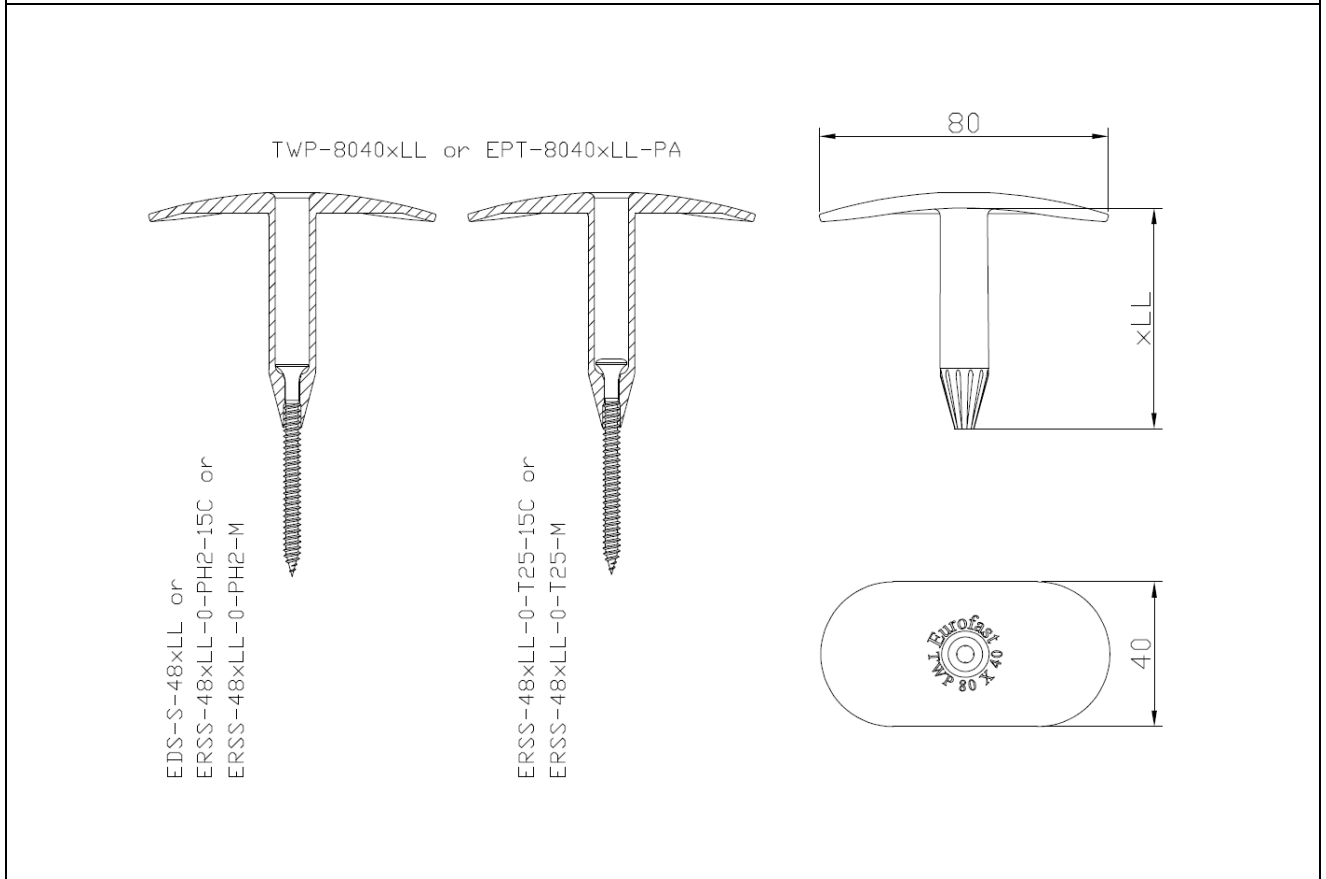
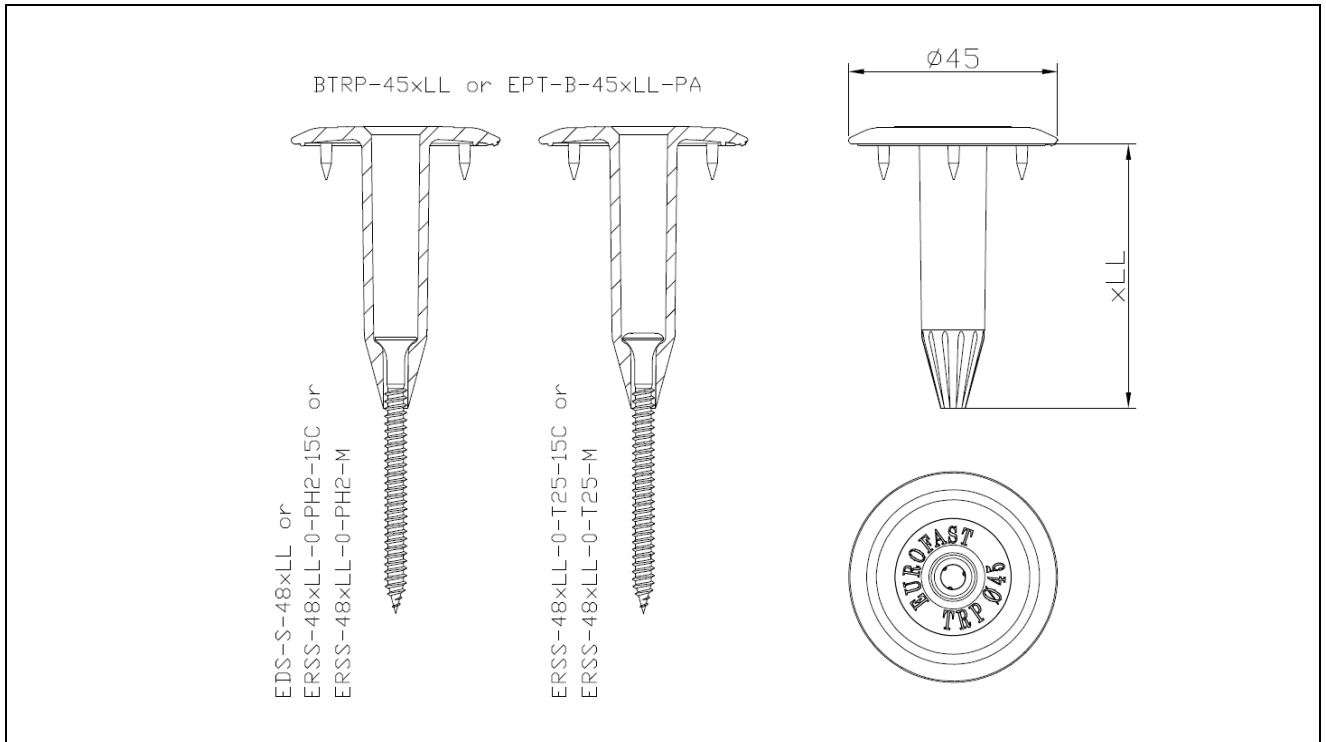
**Eurofast Flat Roof Fasteners**

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**



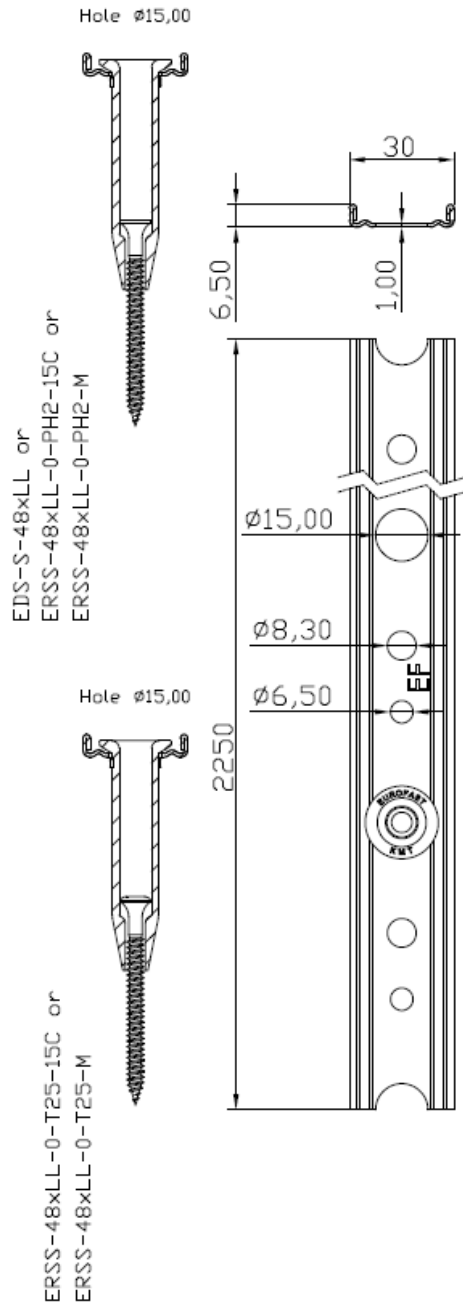
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.4</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



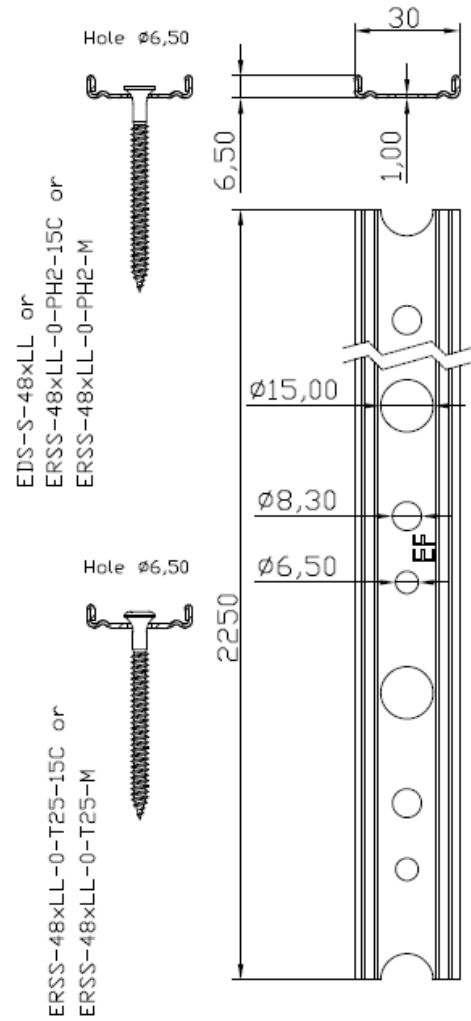
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.5</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



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

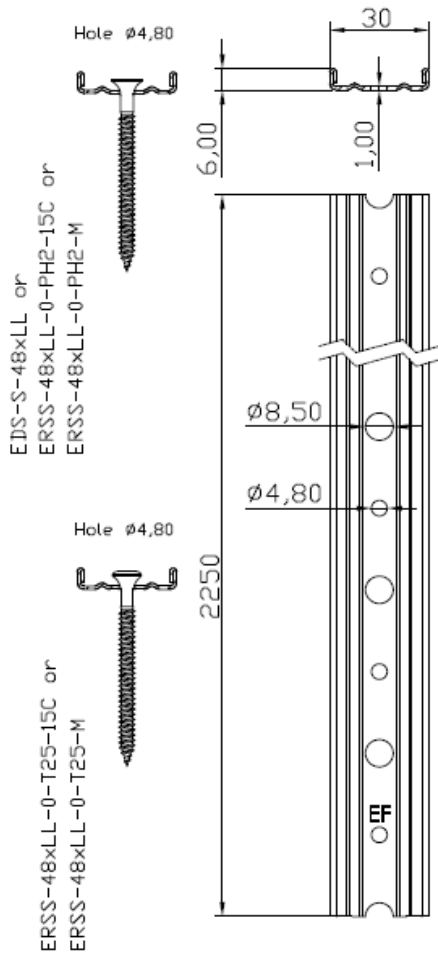


**Eurofast Flat Roof Fasteners**

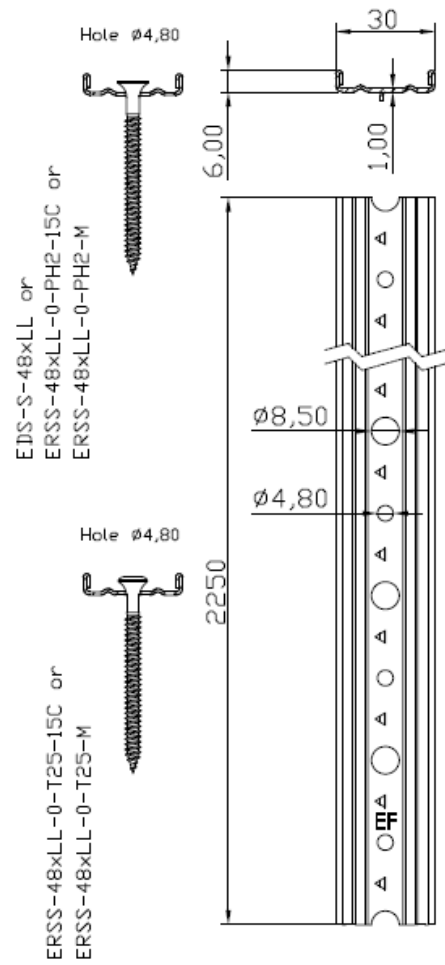
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)  
(ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

**Annex A.6**

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



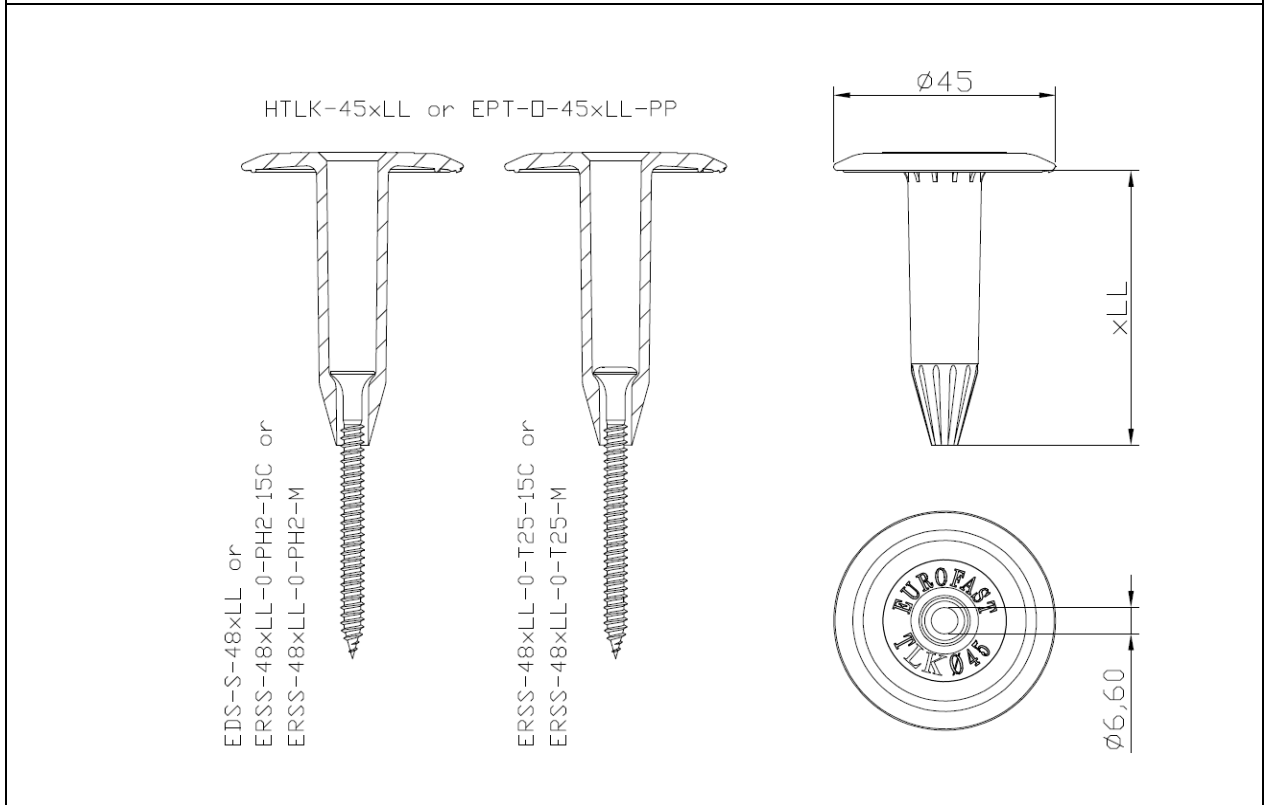
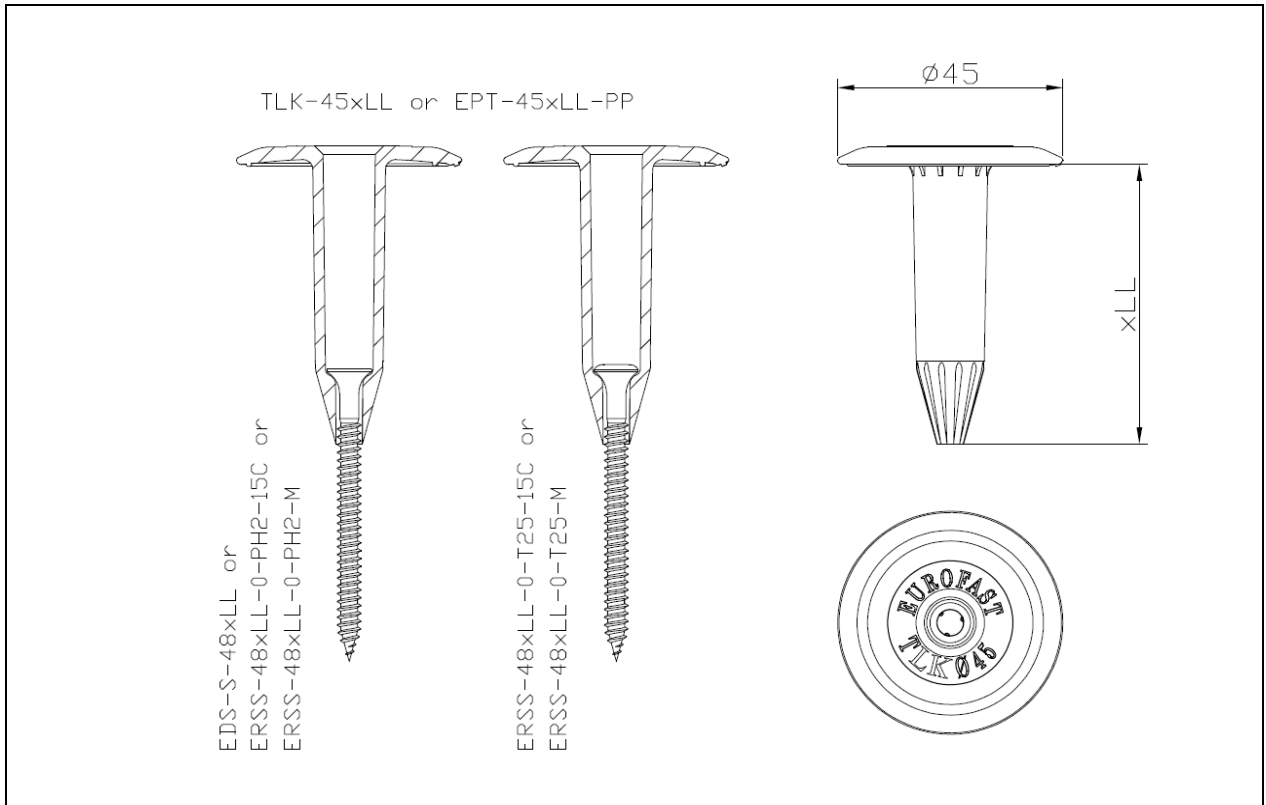
EDF-BAR FB or  
ETM-B-2250-30-4.8-8.5-1.0



**Eurofast Flat Roof Fasteners**

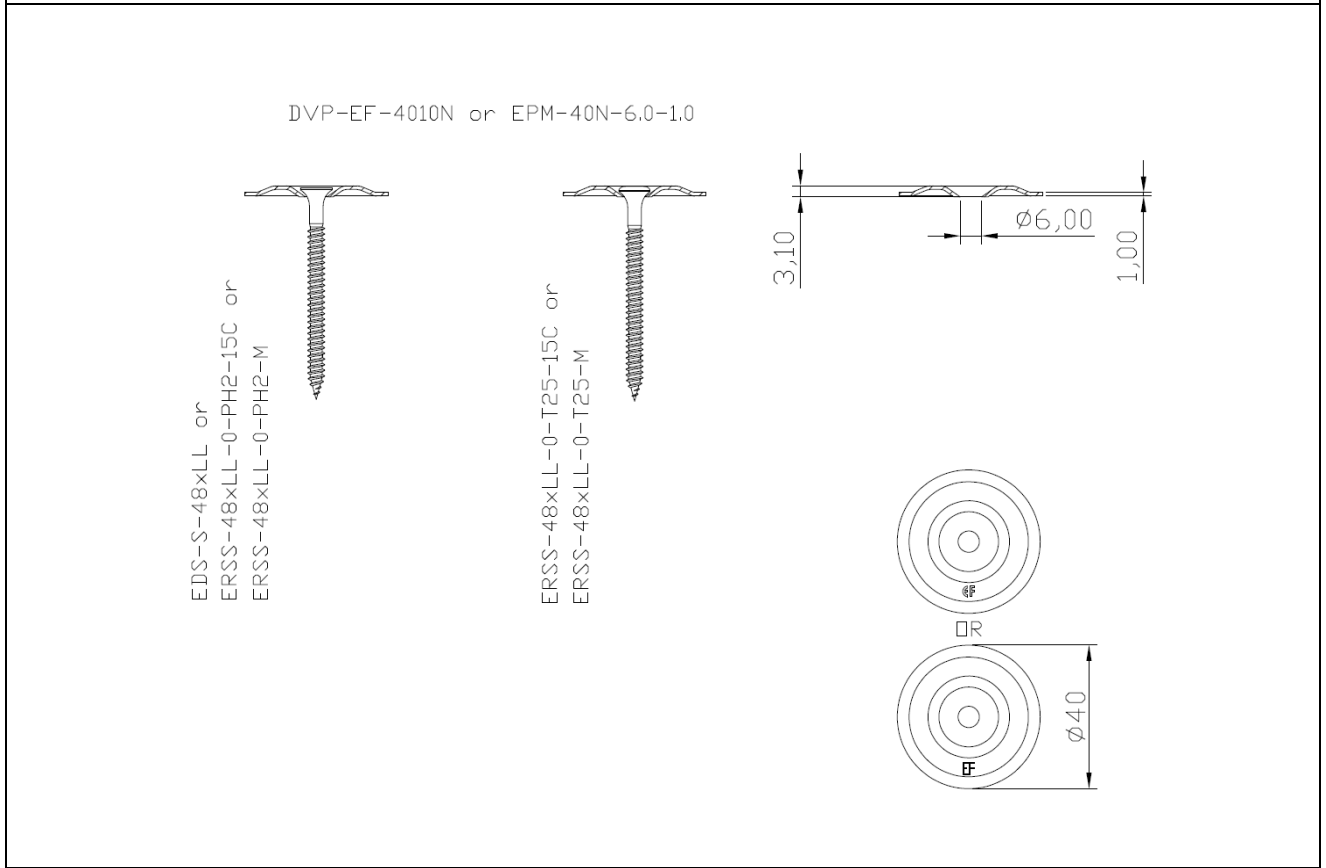
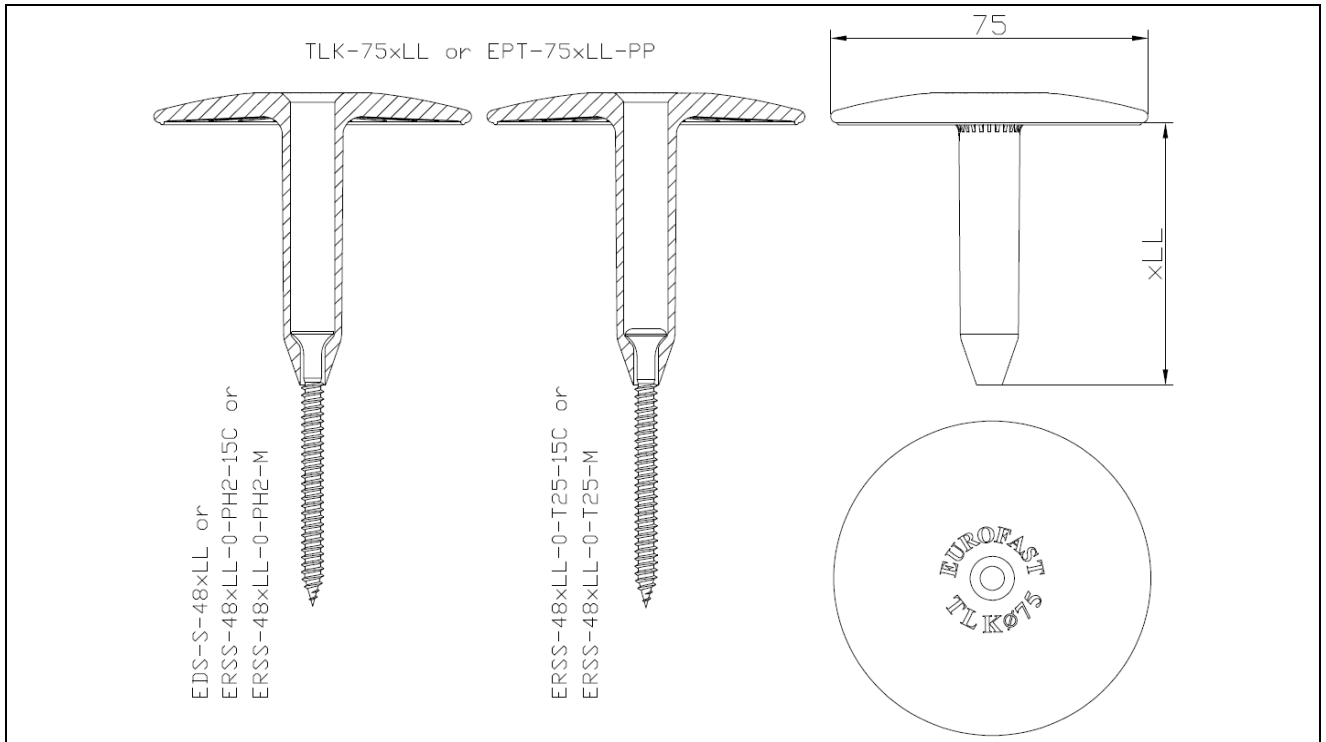
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M)  
(ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

**Annex A.7**

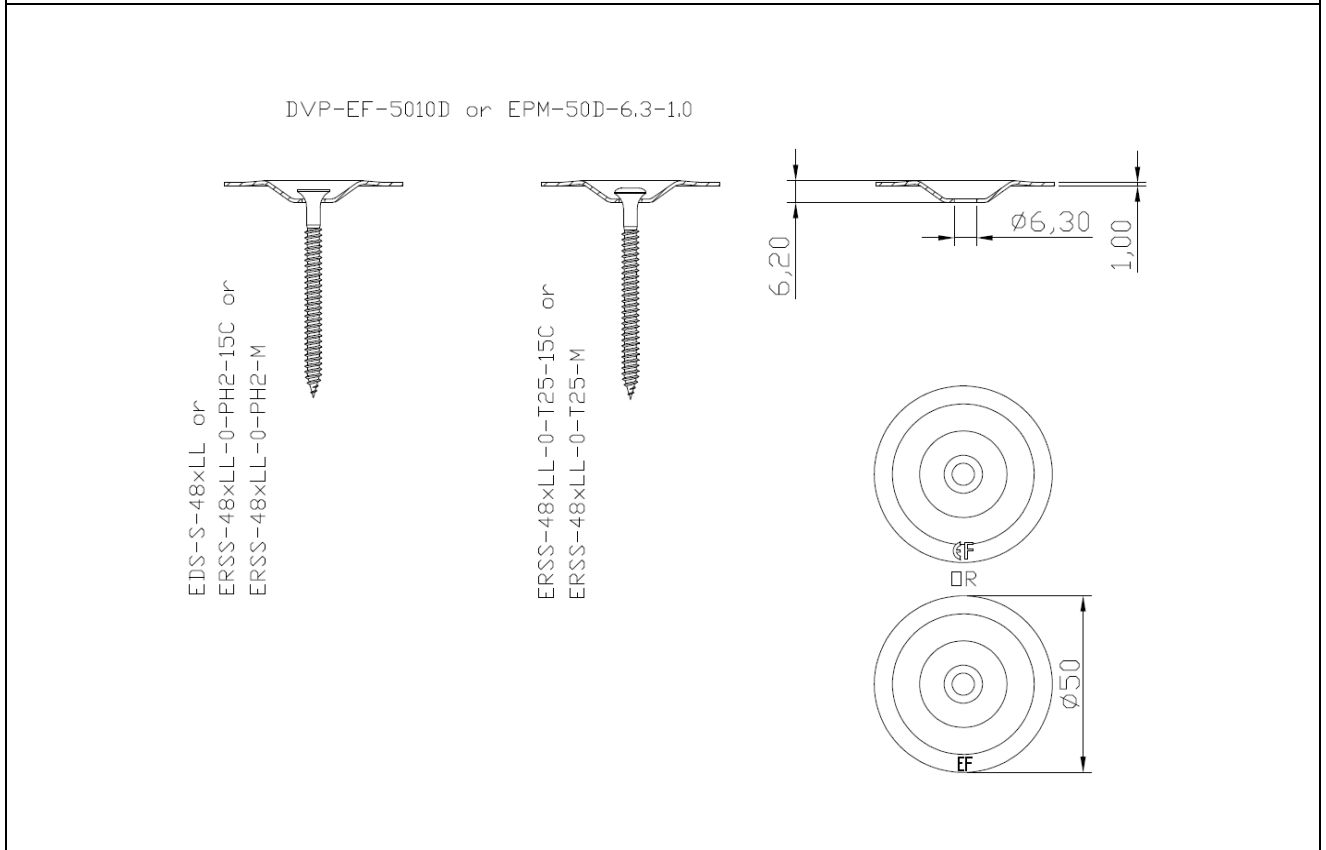
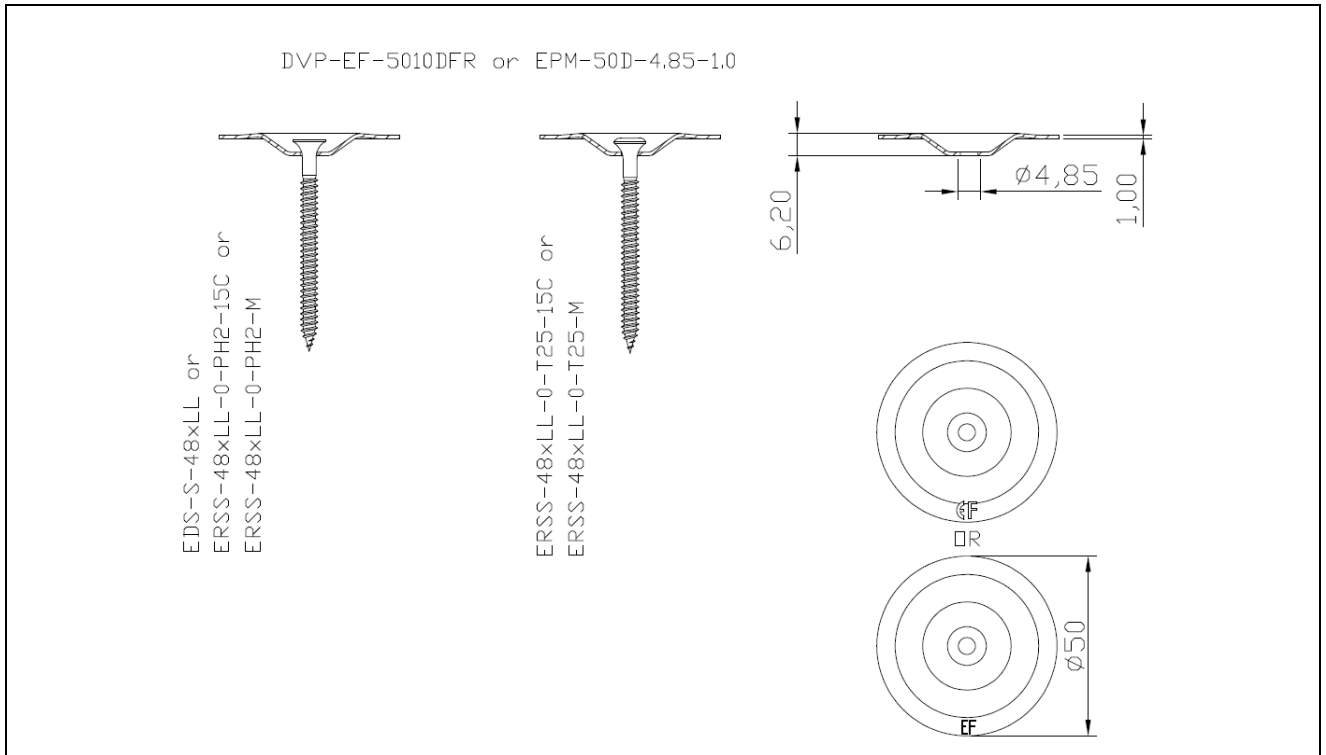


<b>Eurofast Flat Roof Fasteners</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)

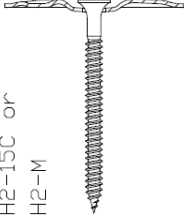
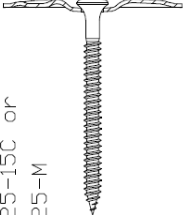
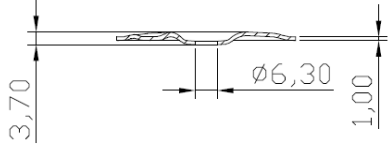

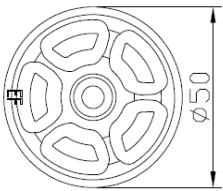
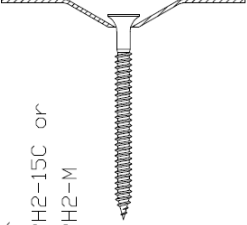
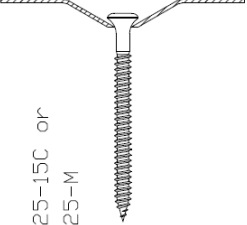
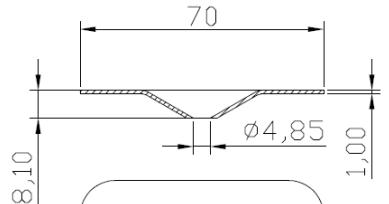
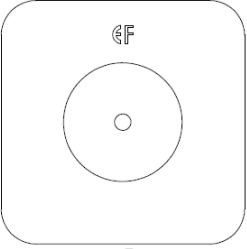
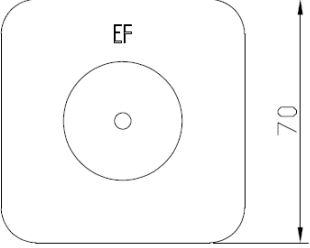
<b>Annex A.8</b>
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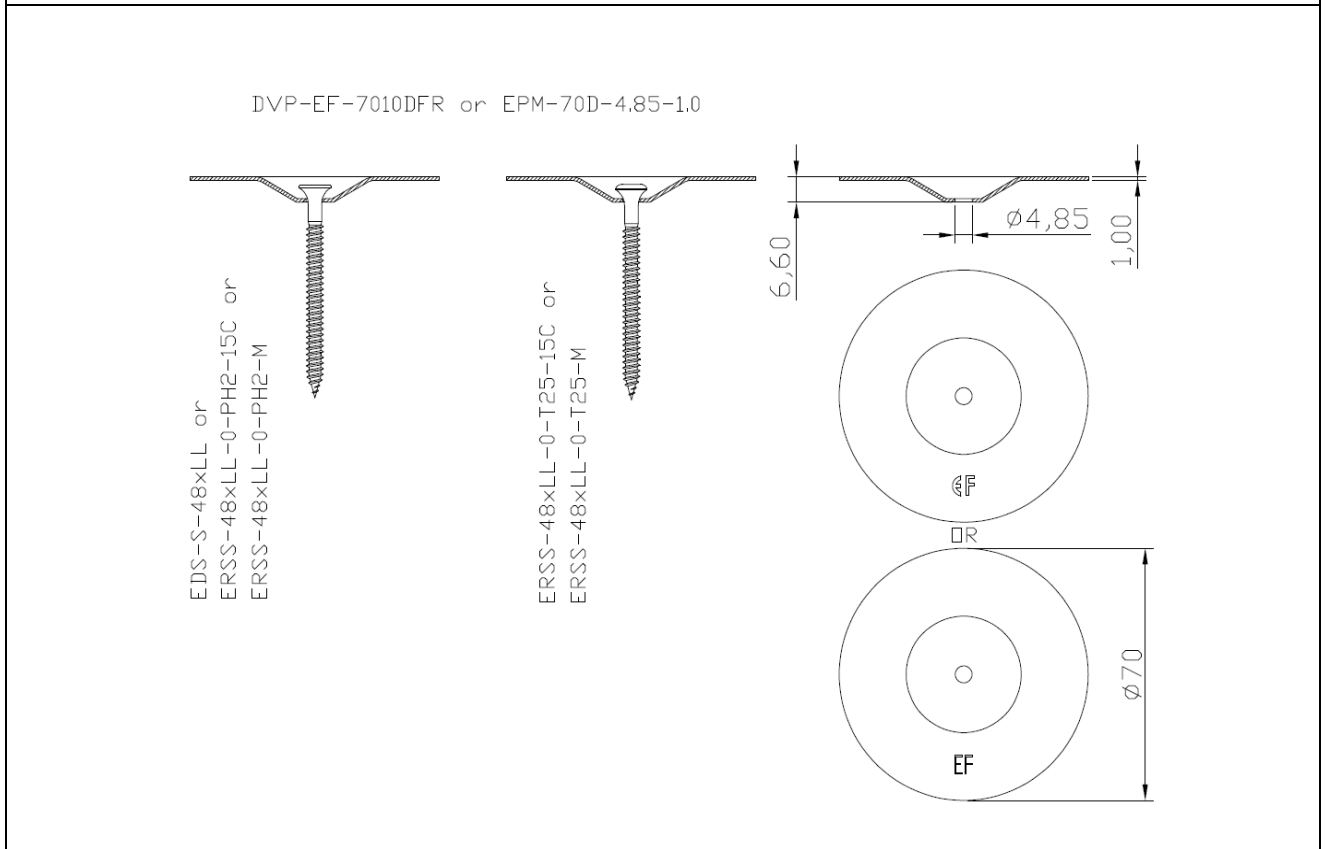
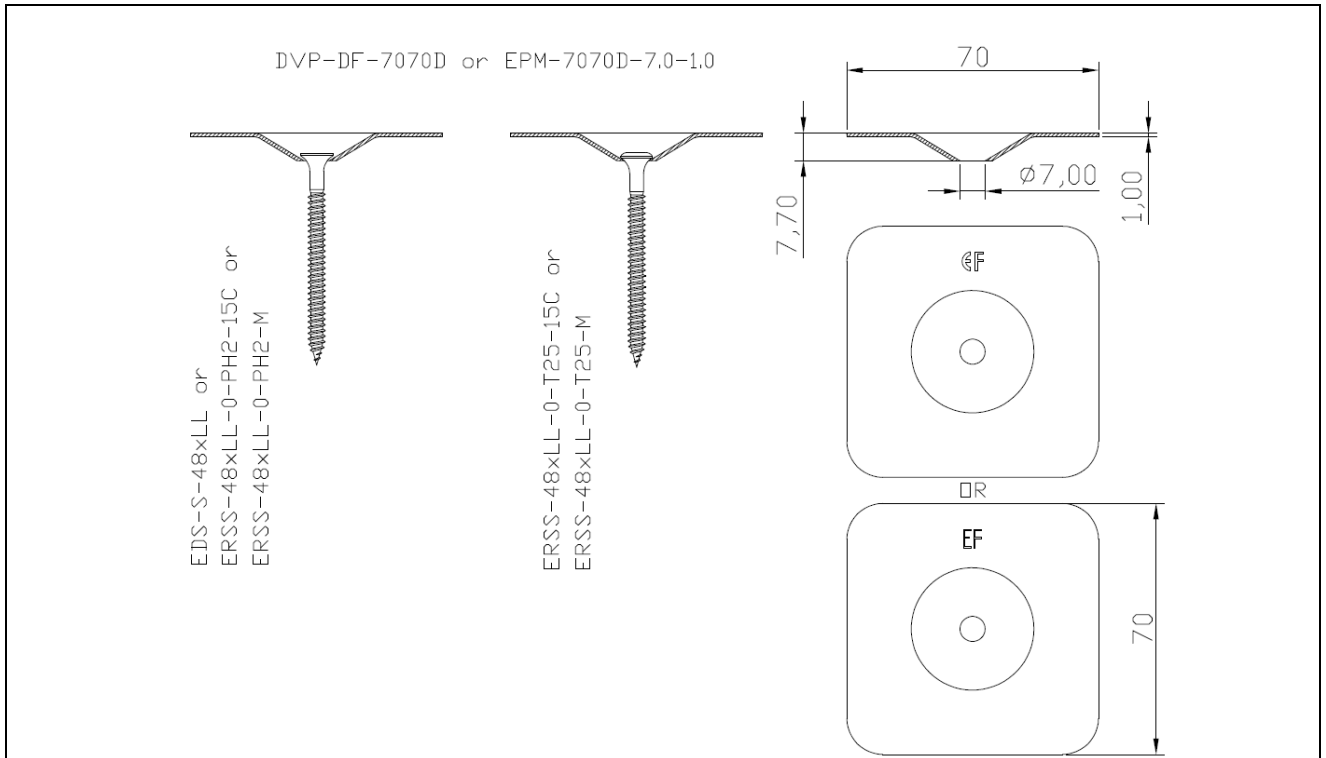


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.9</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

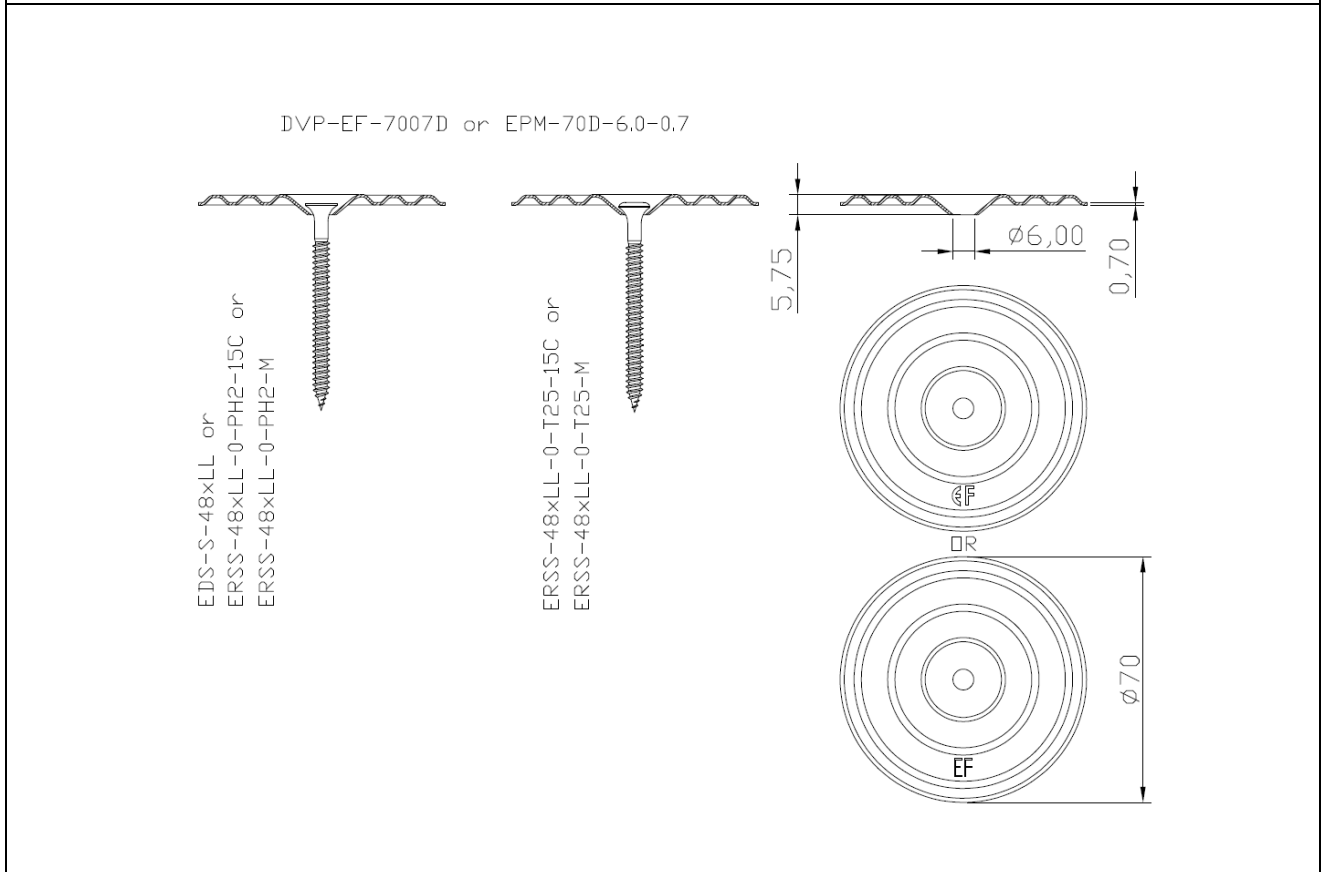
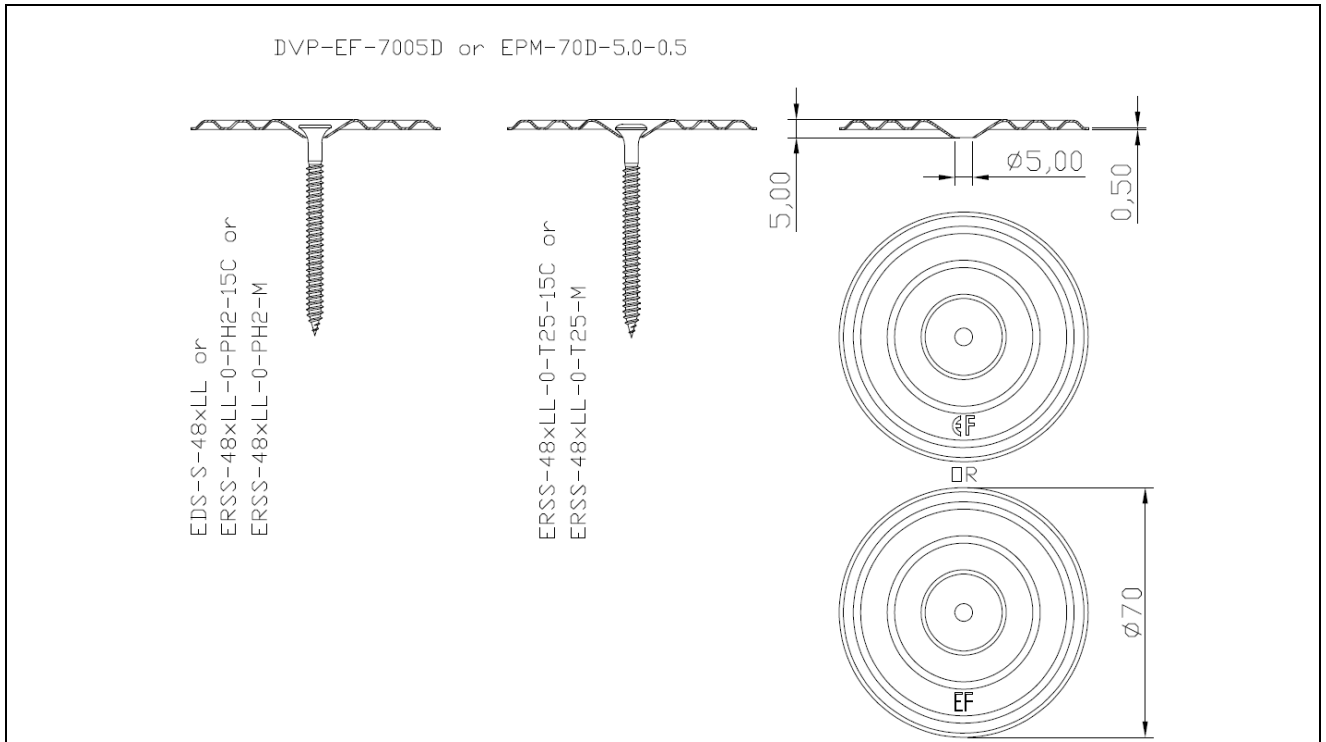


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.10</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

<p style="text-align: center;">DVP-EF-5010N or EPM-50N-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;">  <p>OR</p>  <p>Ø50</p> </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; 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;">  <p>OR</p>  <p>70</p> </div>	
<p><b>Eurofast Flat Roof Fasteners</b></p>	<p><b>Annex A.11</b></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>	



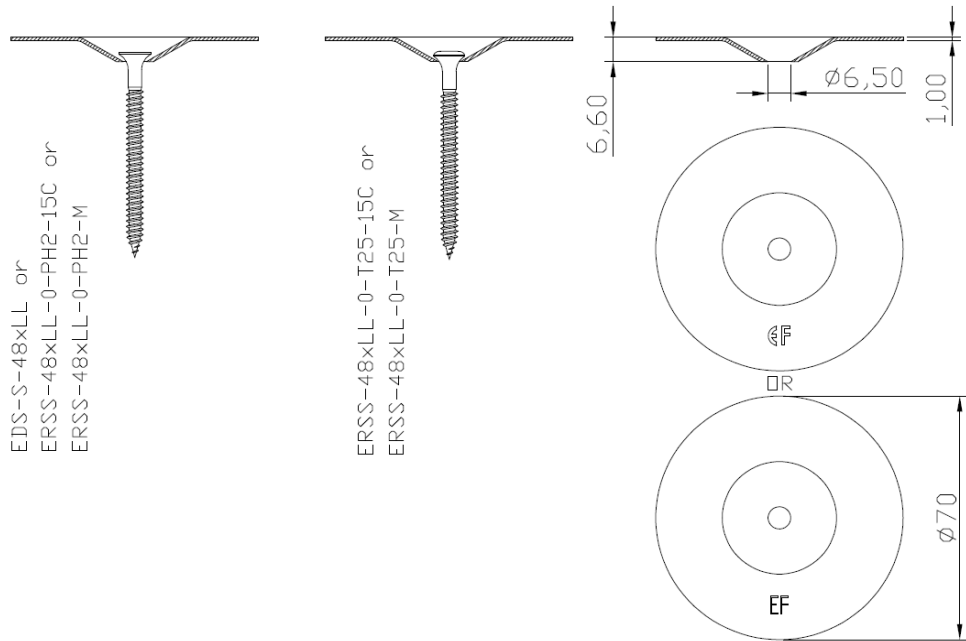
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.12</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



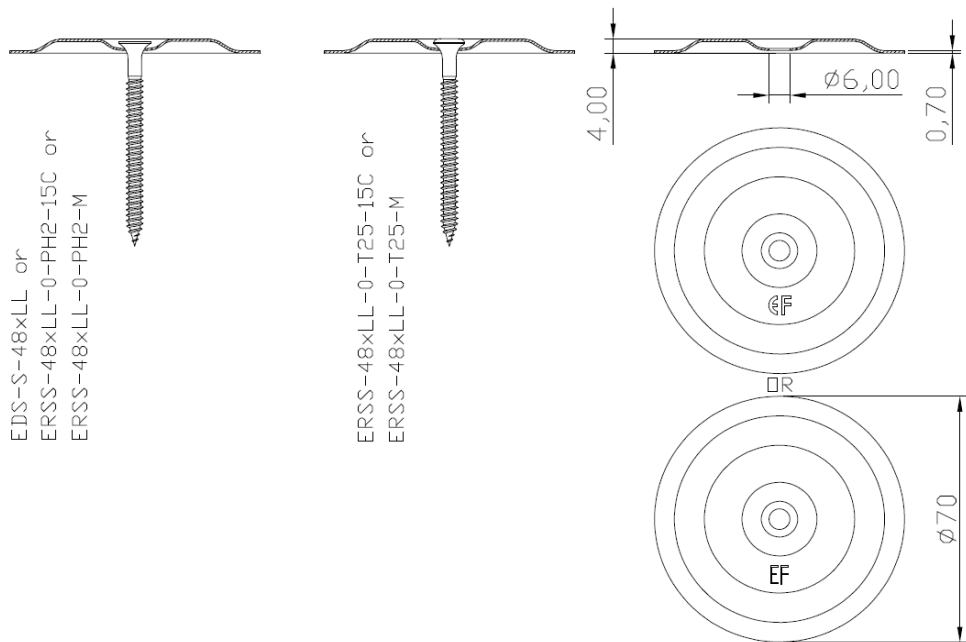
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.13</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



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



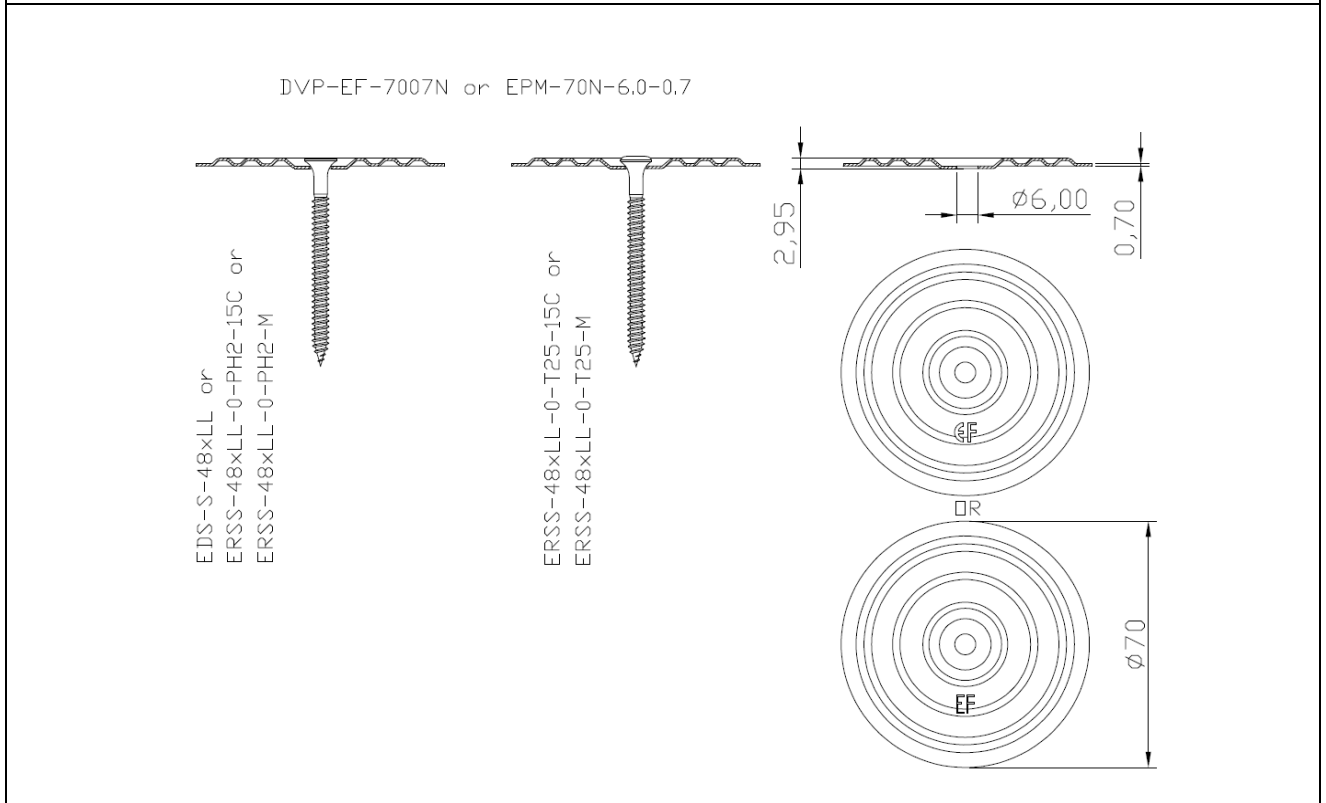
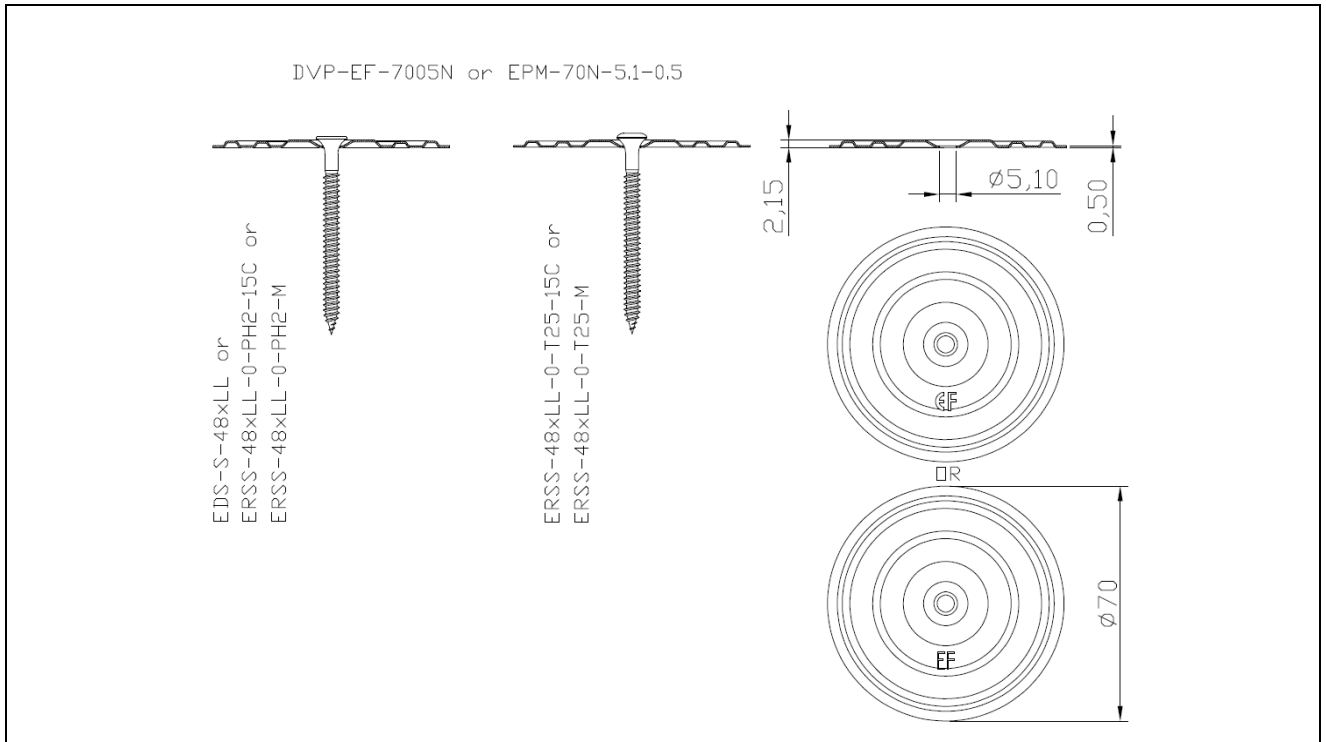
DVP-EF-7007H or EPM-70H-6.0-0.7



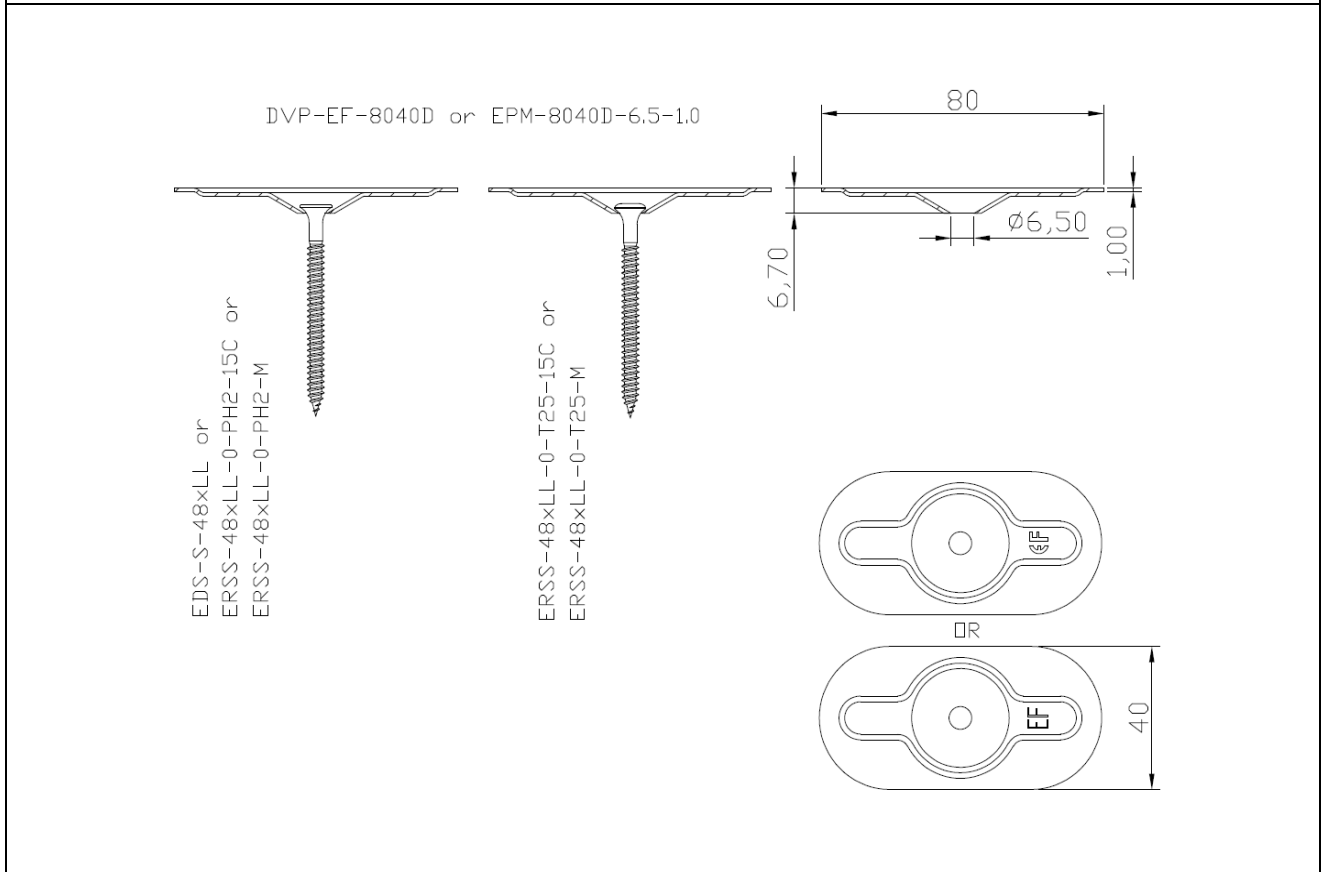
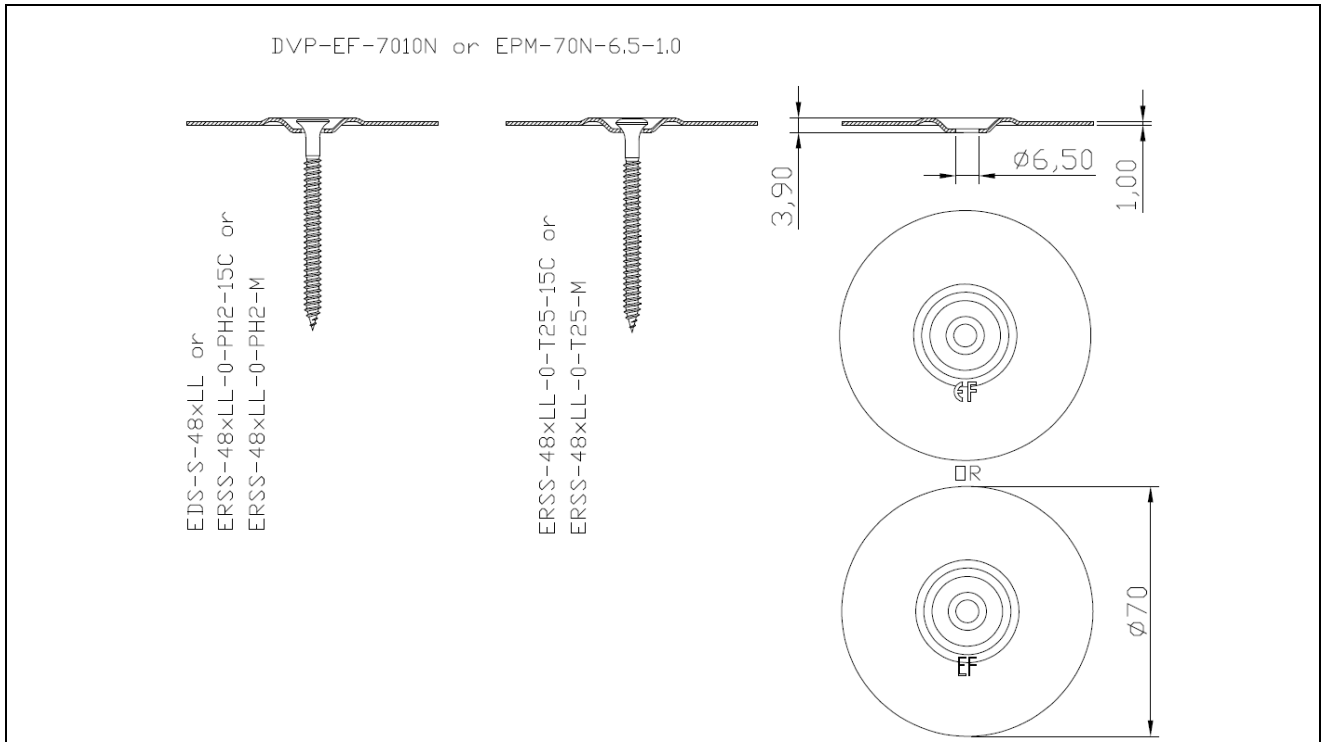
**Eurofast Flat Roof Fasteners**

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)

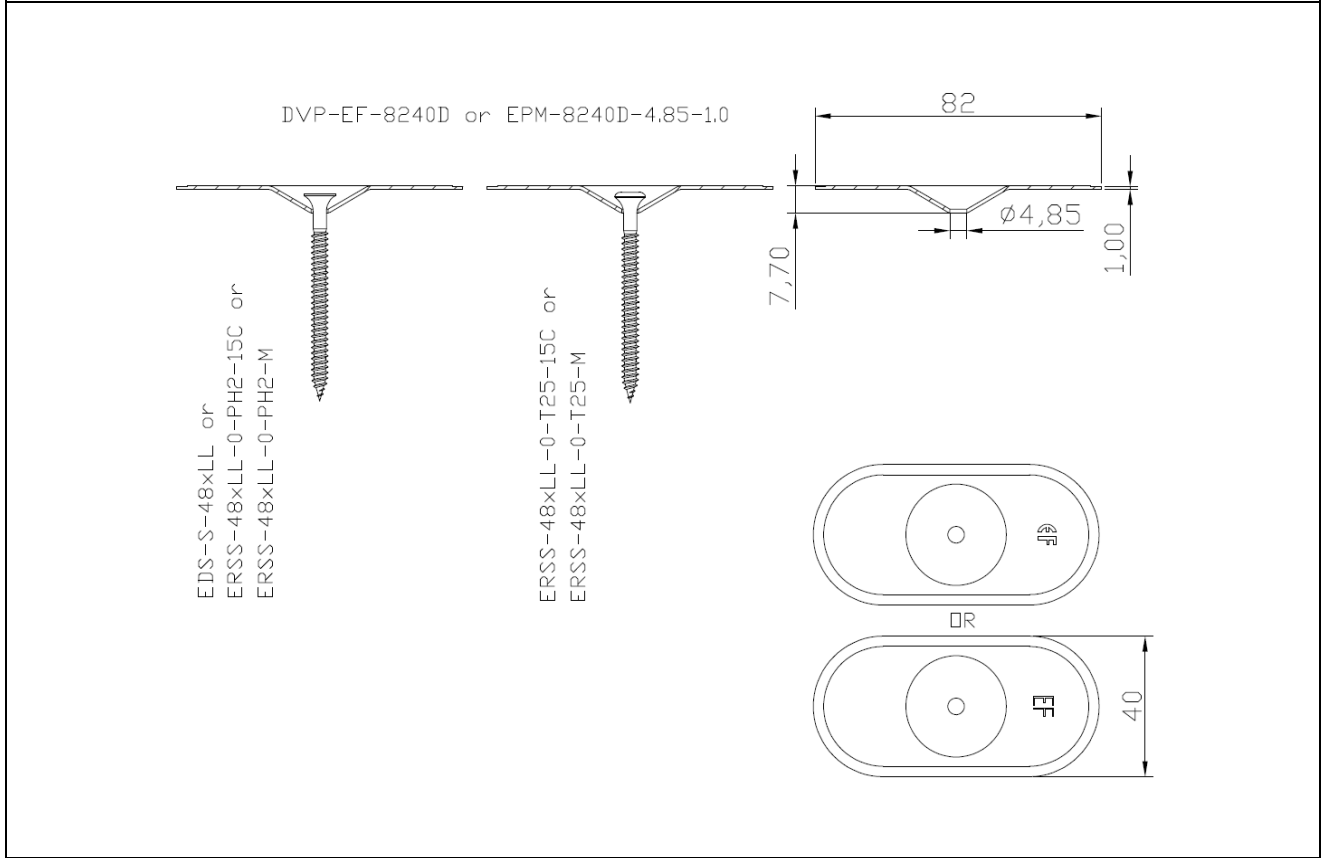
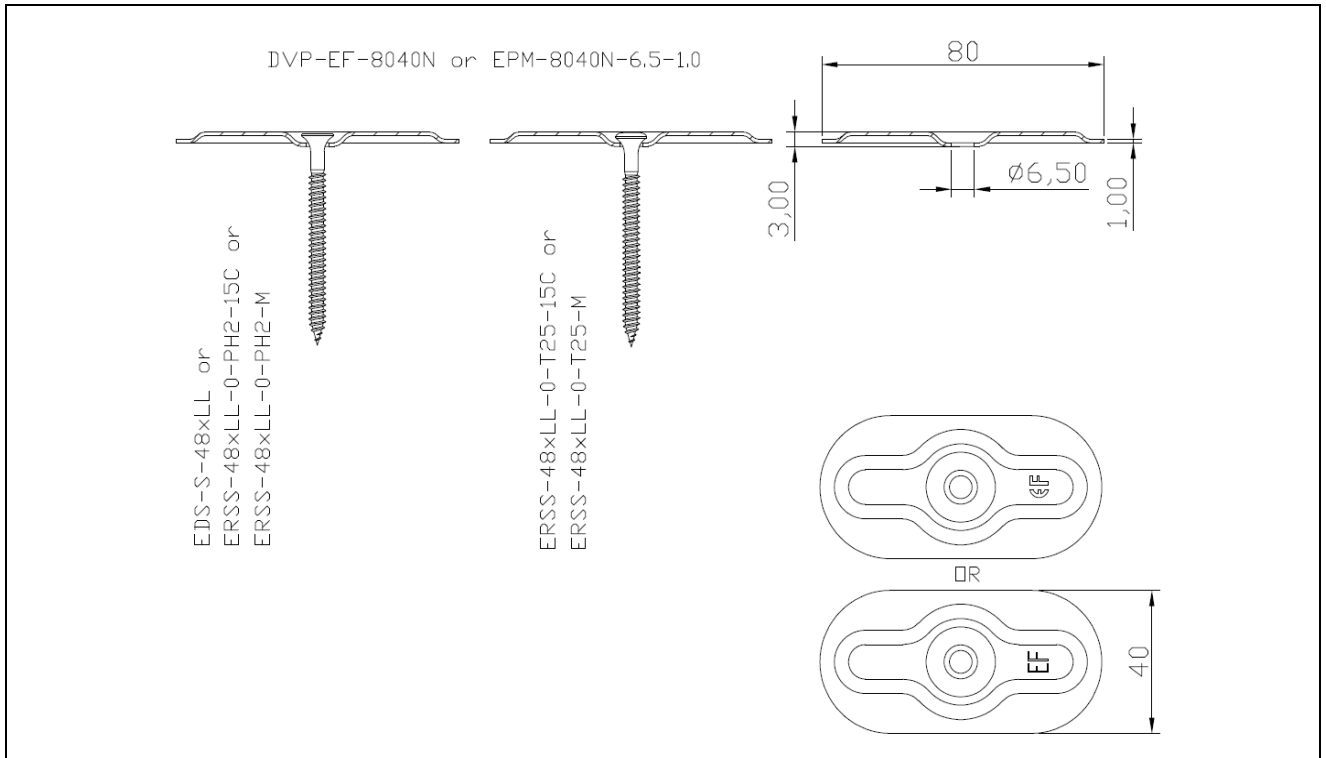
**Annex A.14**



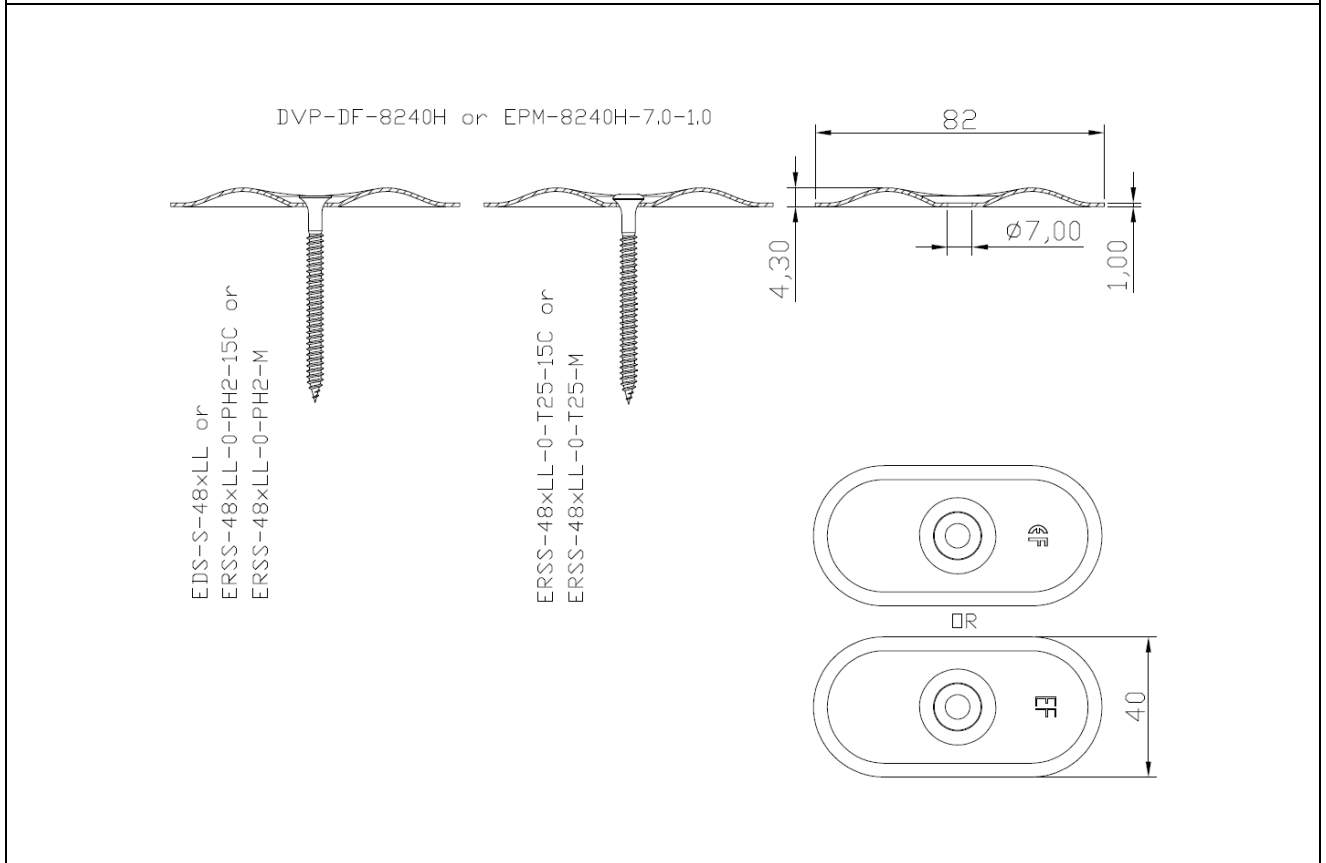
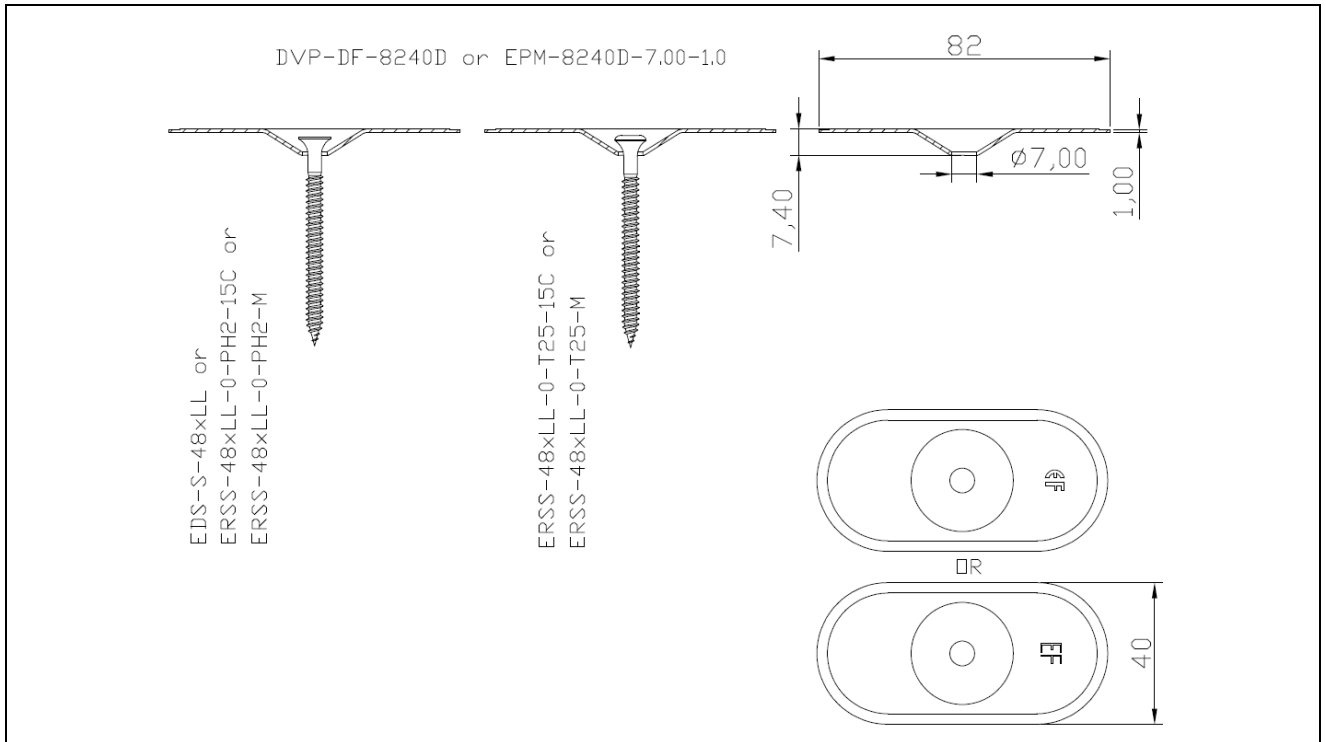
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.15</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



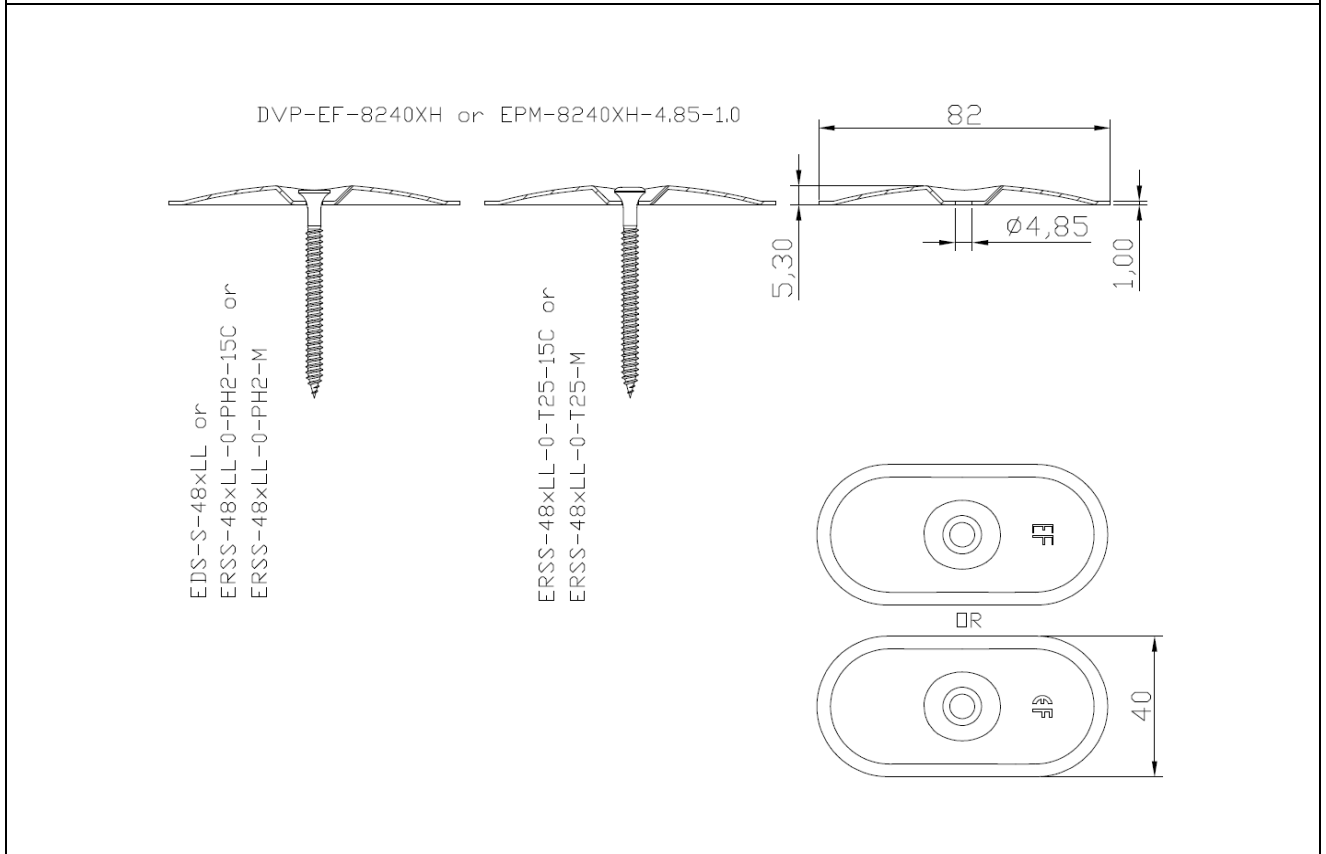
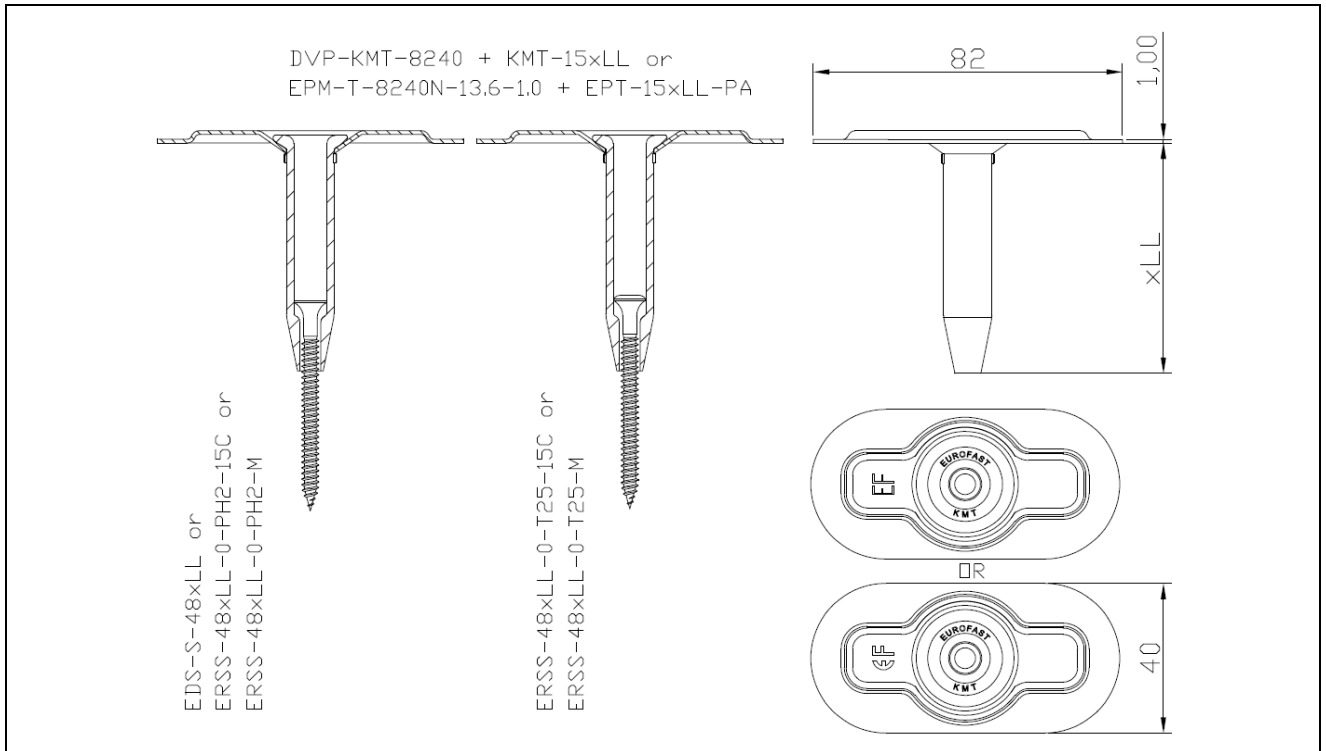
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.16</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



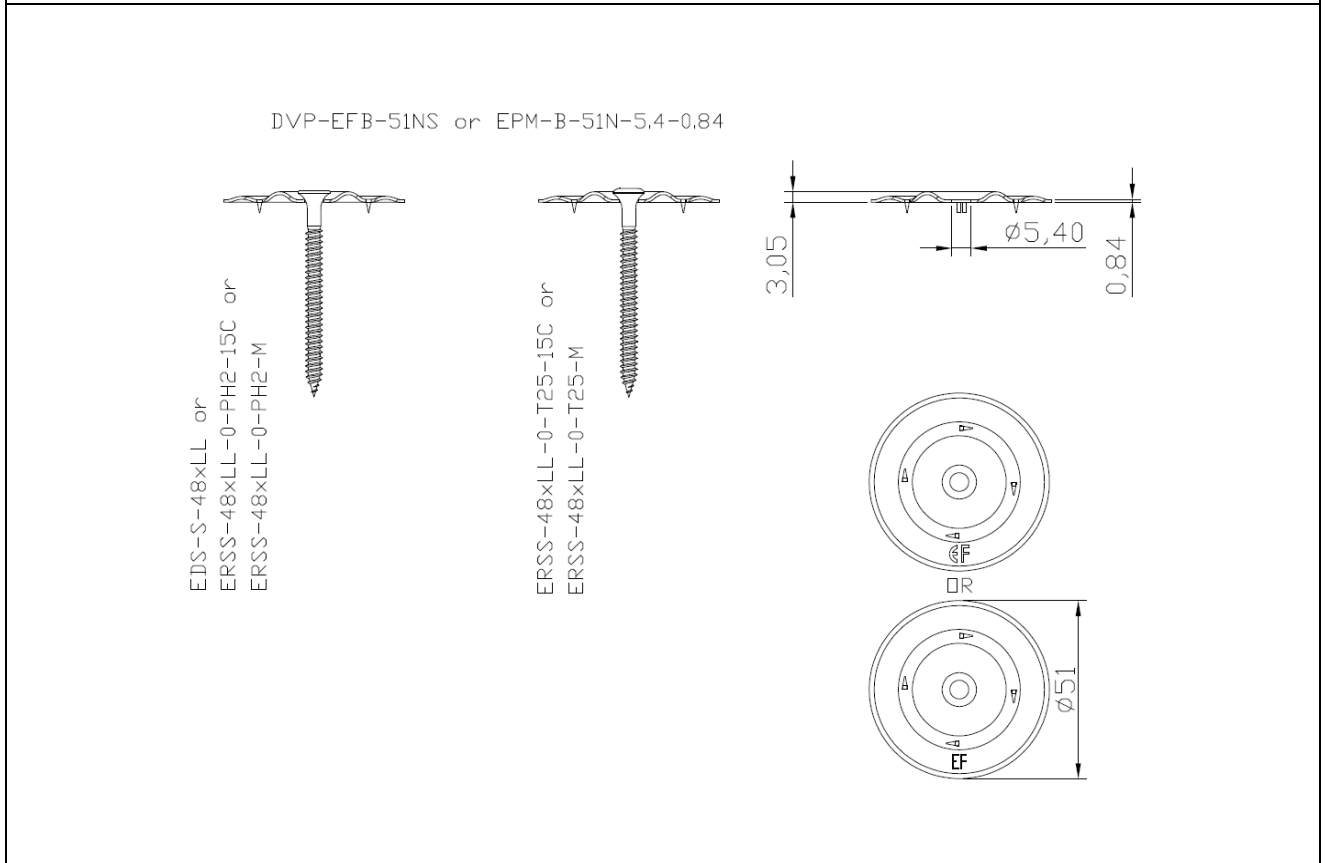
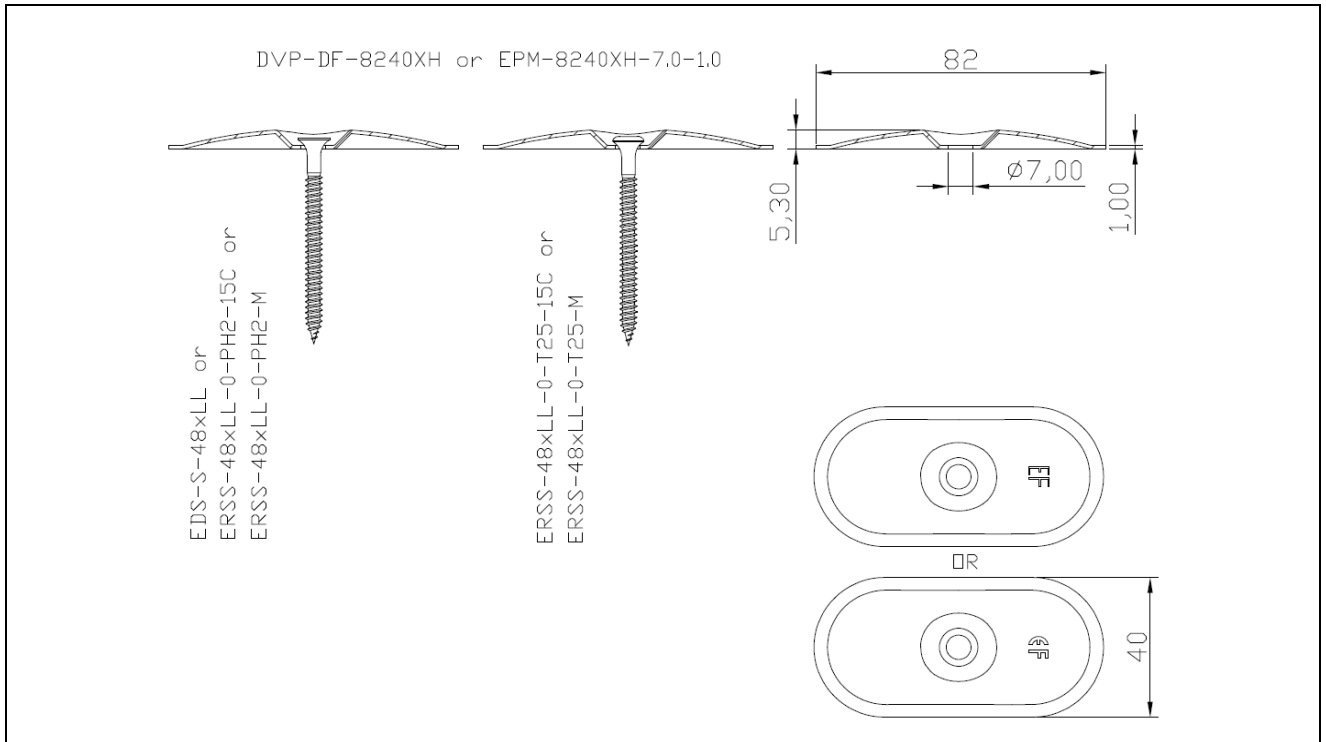
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.17</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



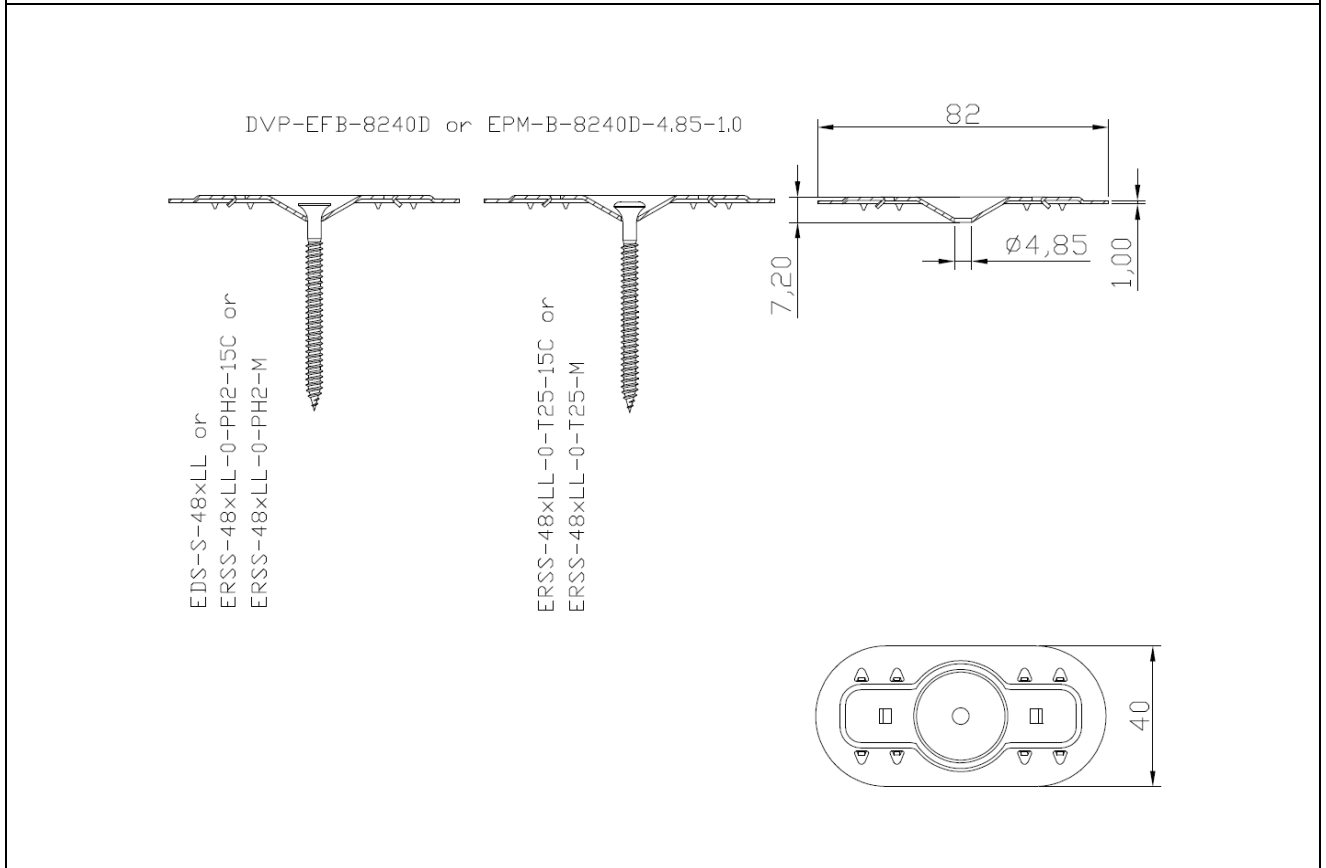
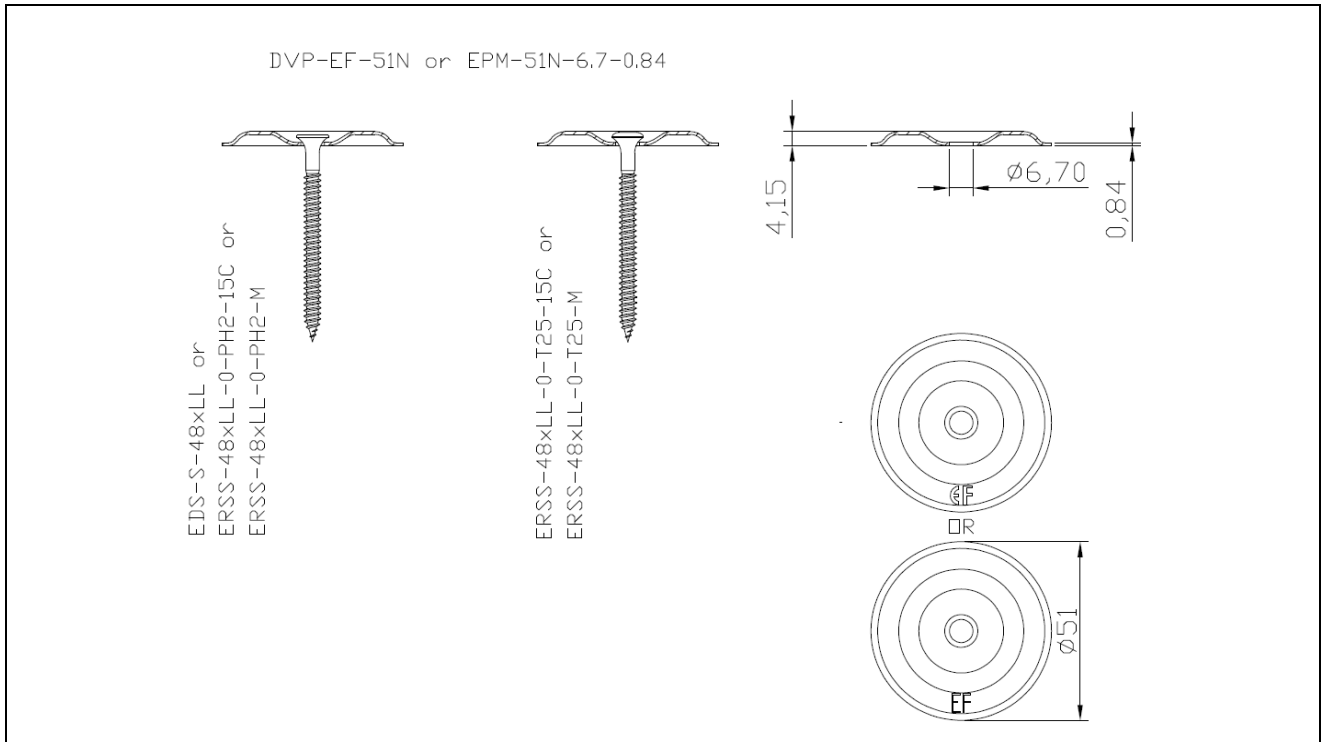
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.18</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.19</b>
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)	

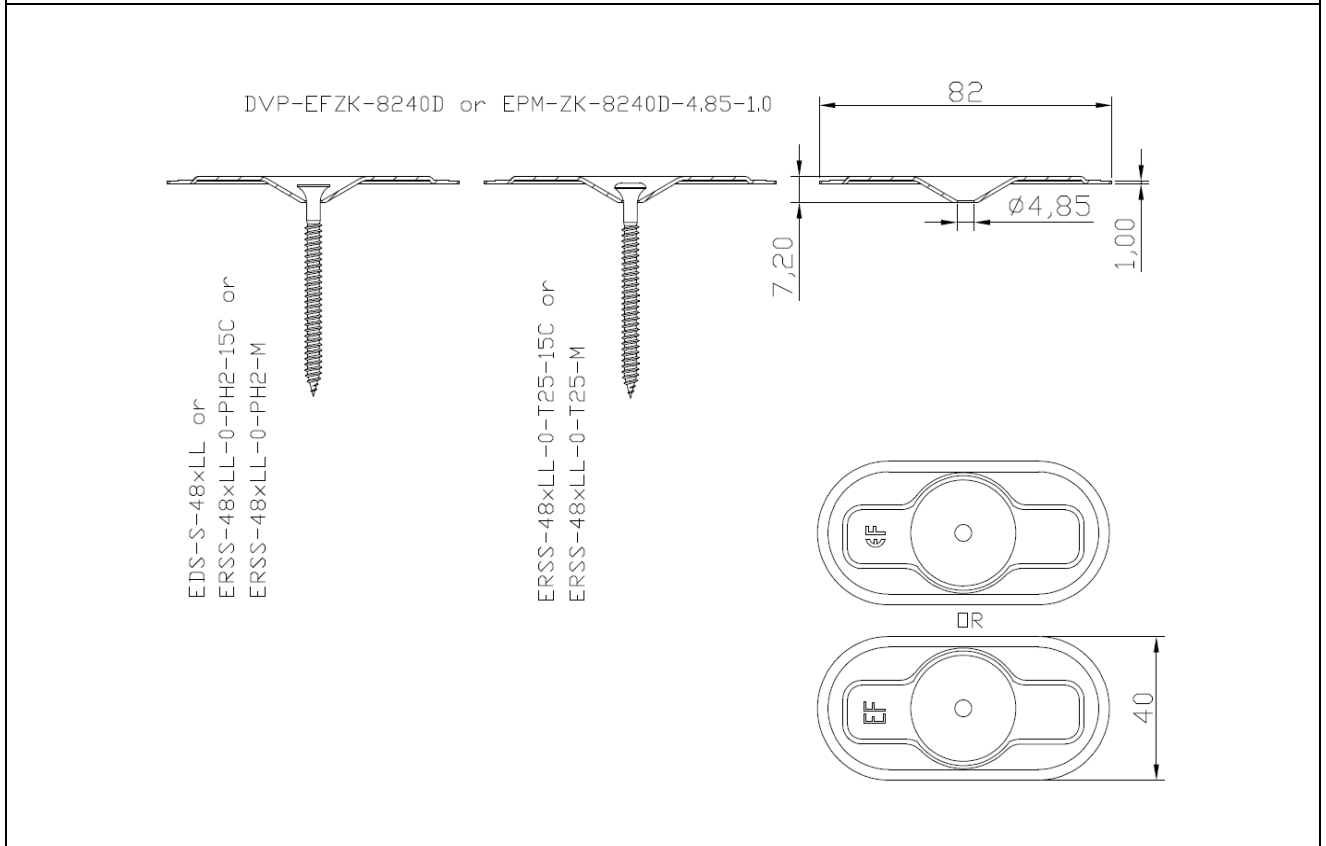
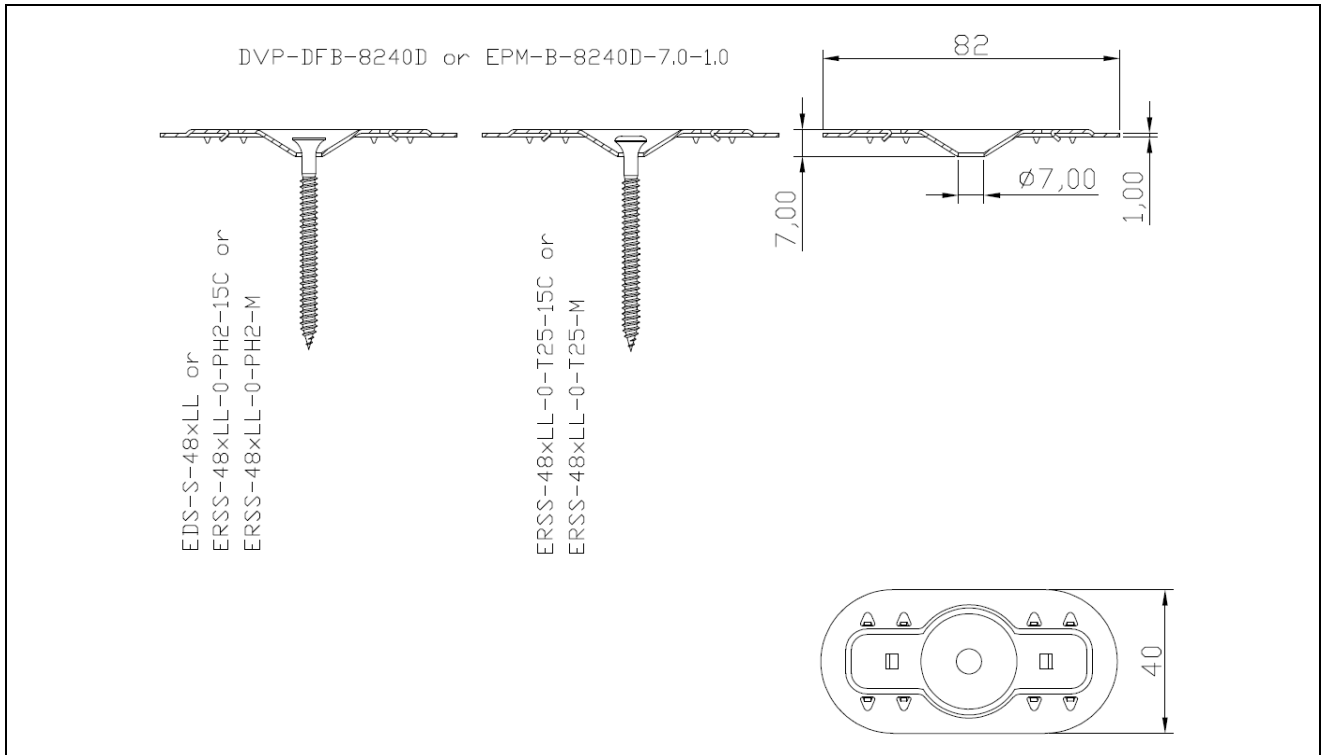


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.20</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

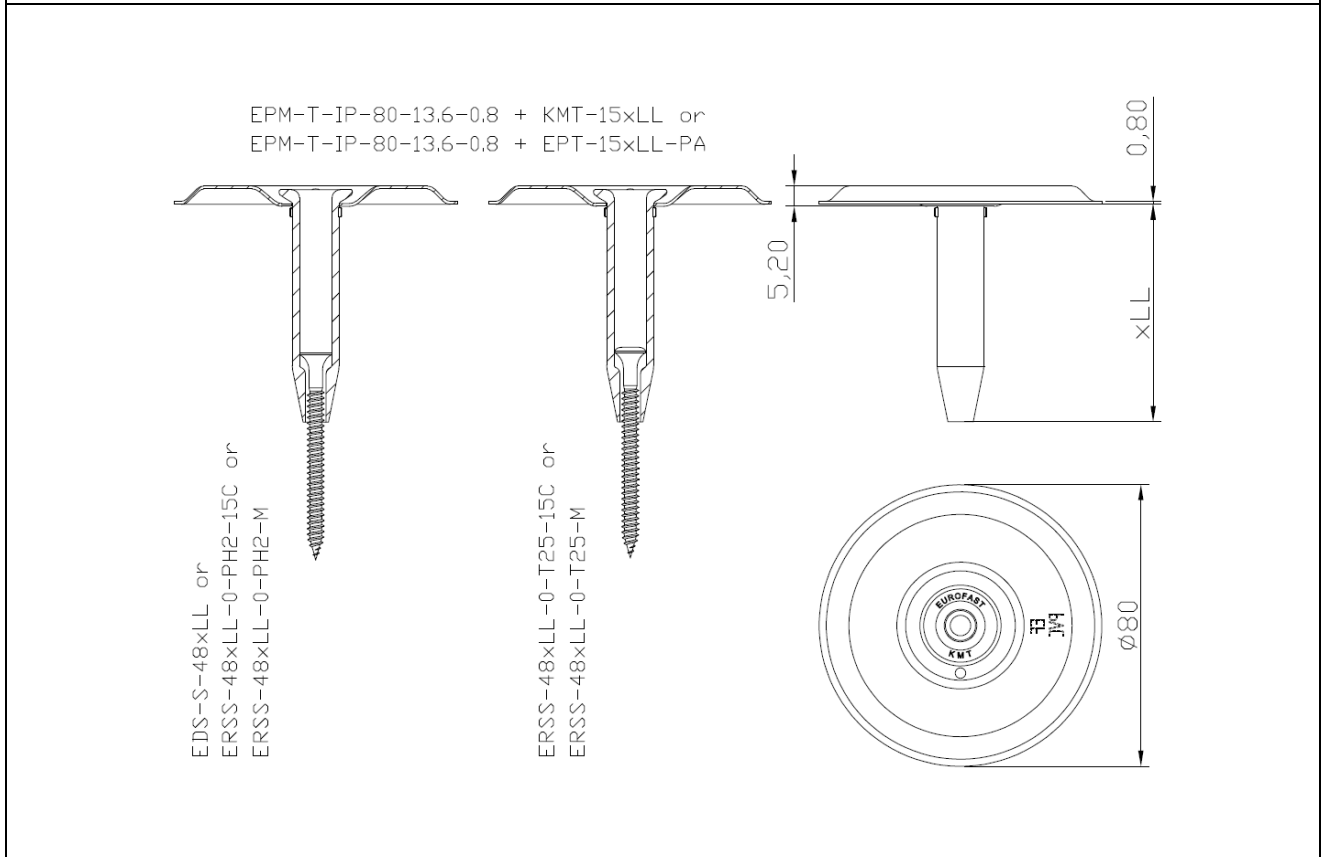
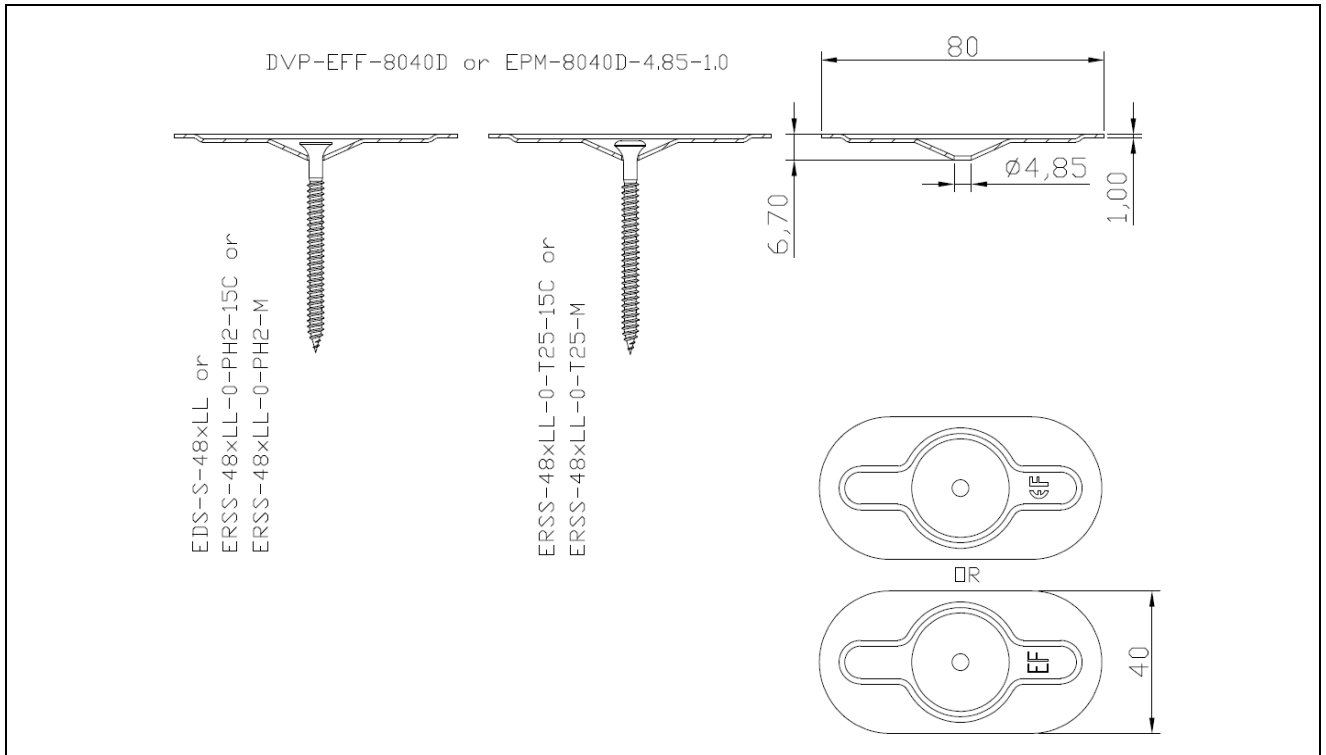


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.21</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

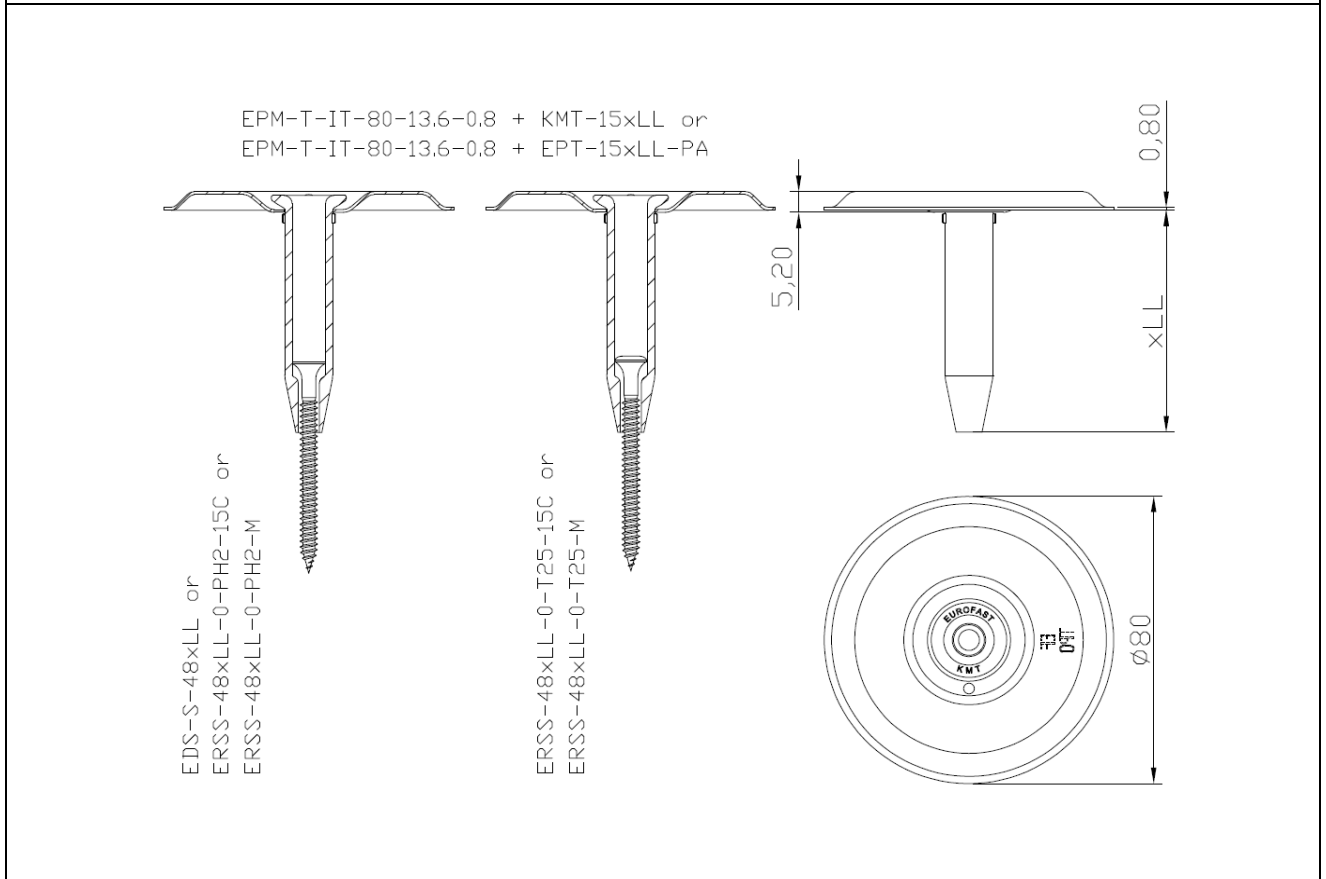
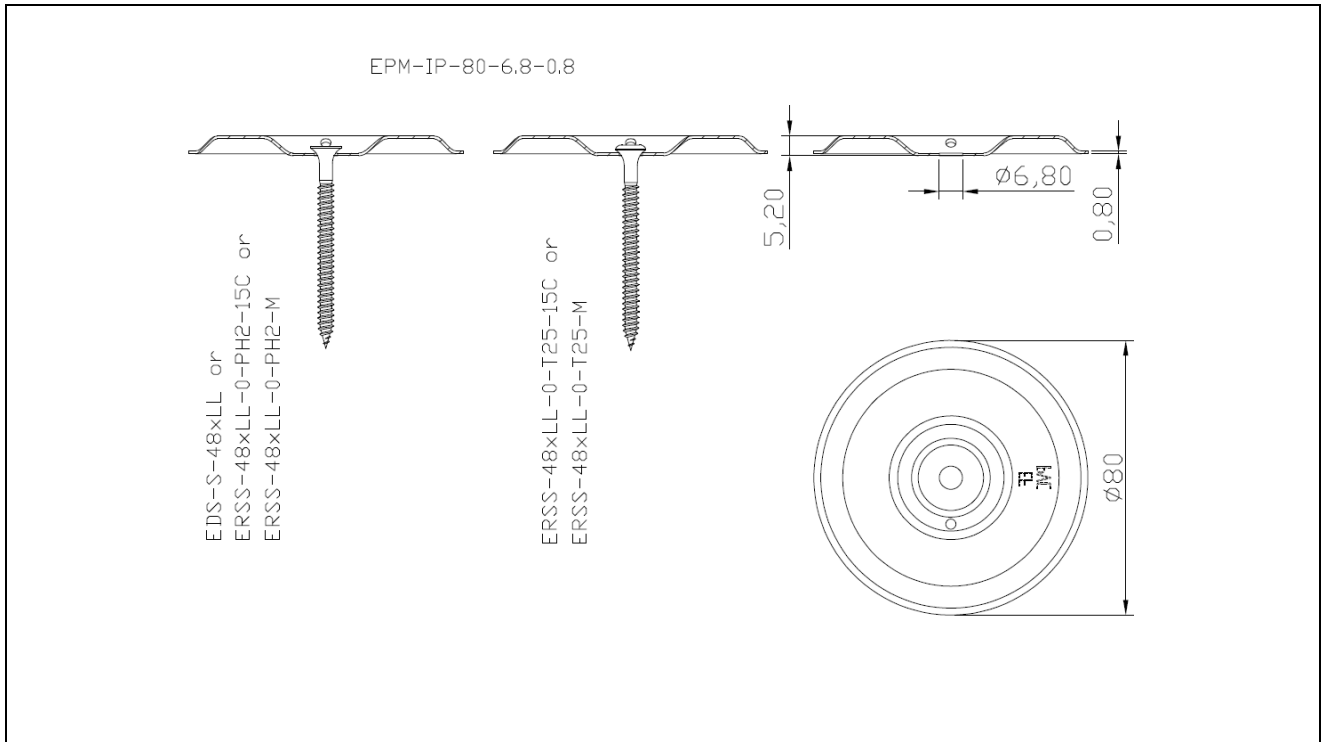




<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.22</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

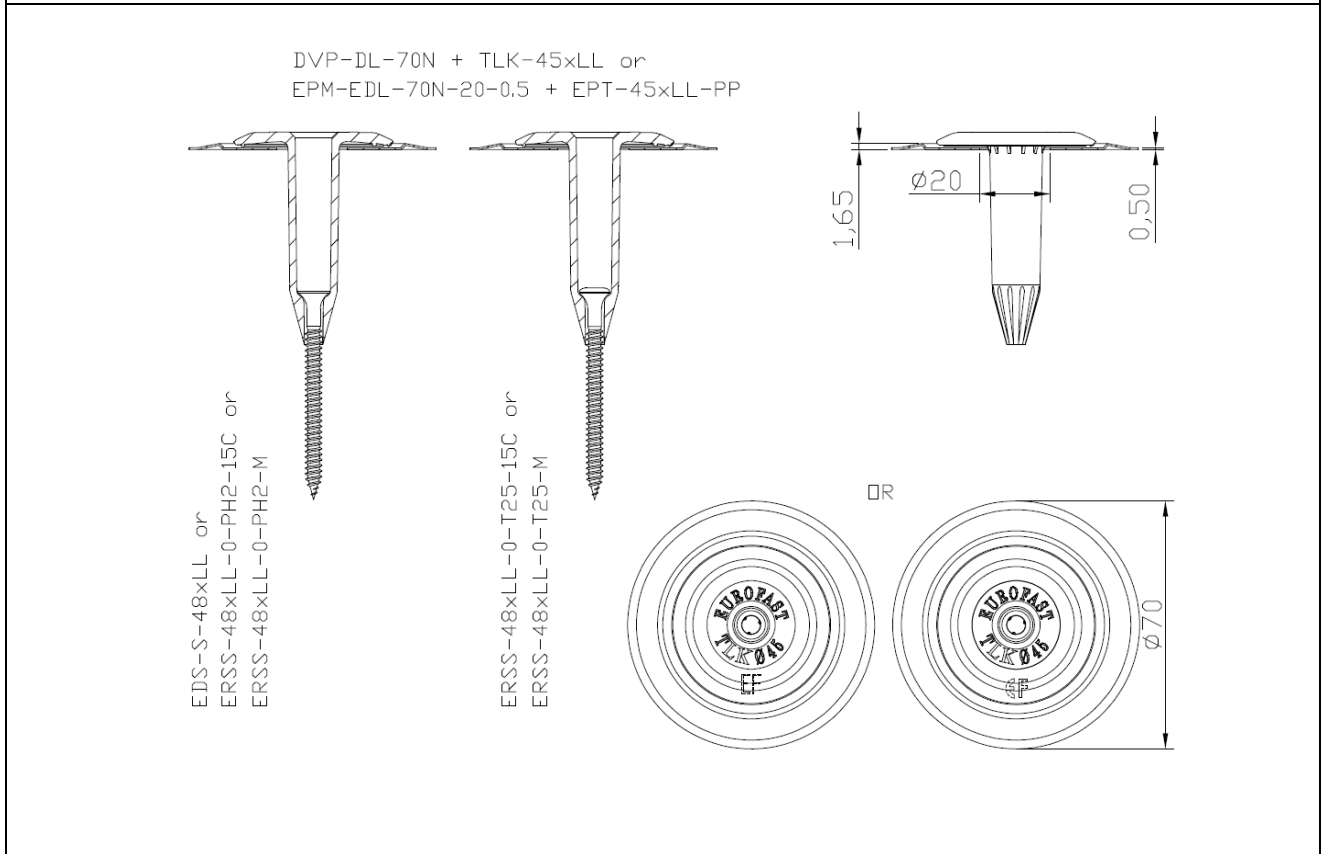
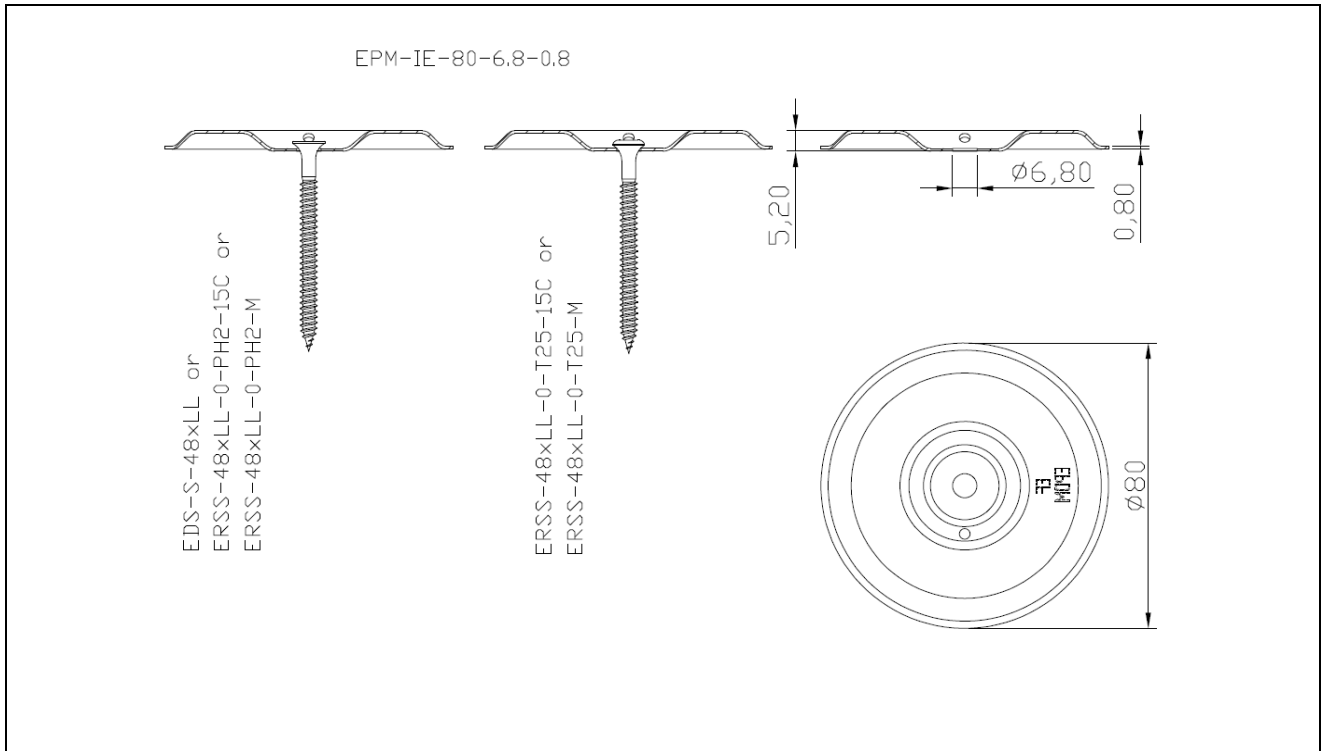


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.23</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	



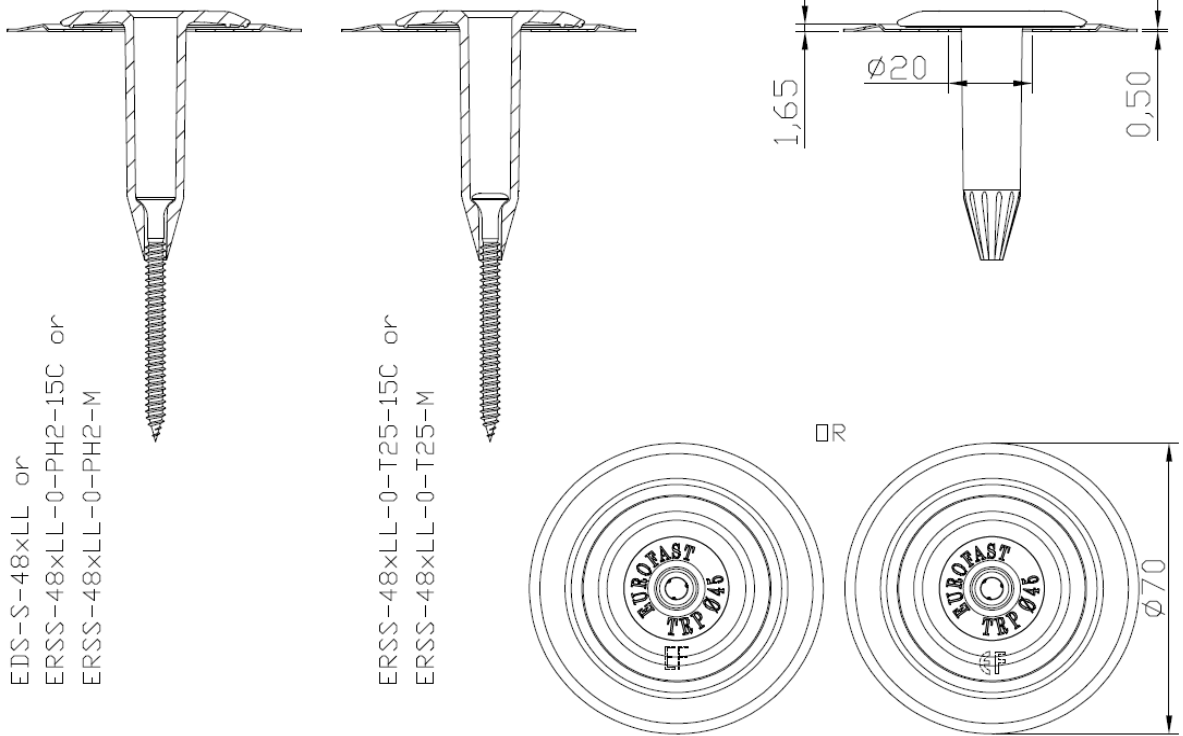
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.24</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

<p style="text-align: center;">EPM-IT-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><b>Eurofast Flat Roof Fasteners</b></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><b>Annex A.25</b></p>

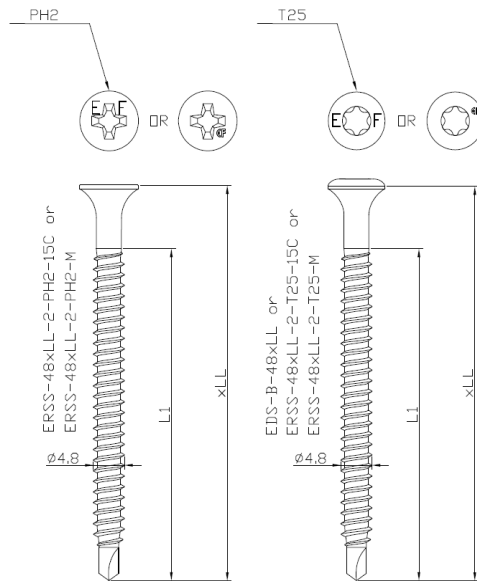


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex A.26</b>
EDS-S-48xLL (ERSS-48xLL-0-PH2-15C or ERSS-48xLL-0-PH2-M) (ERSS-48xLL-0-T25-15C or ERSS-48xLL-0-T25-M)	

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



<b>Eurofast Flat Roof Fasteners</b>	
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)	<b>Annex A.27</b>



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)						
Steel S320GD*						
t [mm]	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 Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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-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)

## Annex B.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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)

### Annex B.2



**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

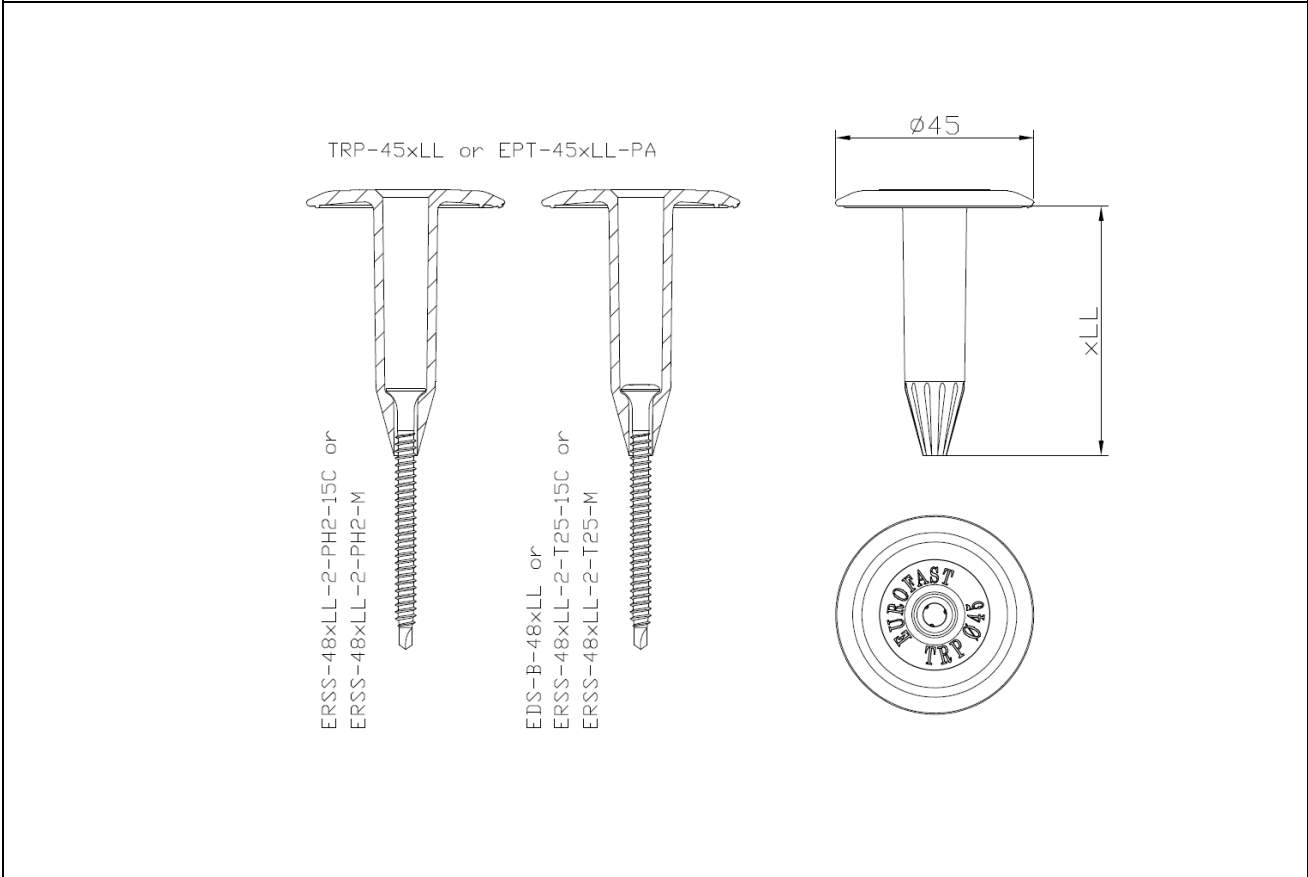
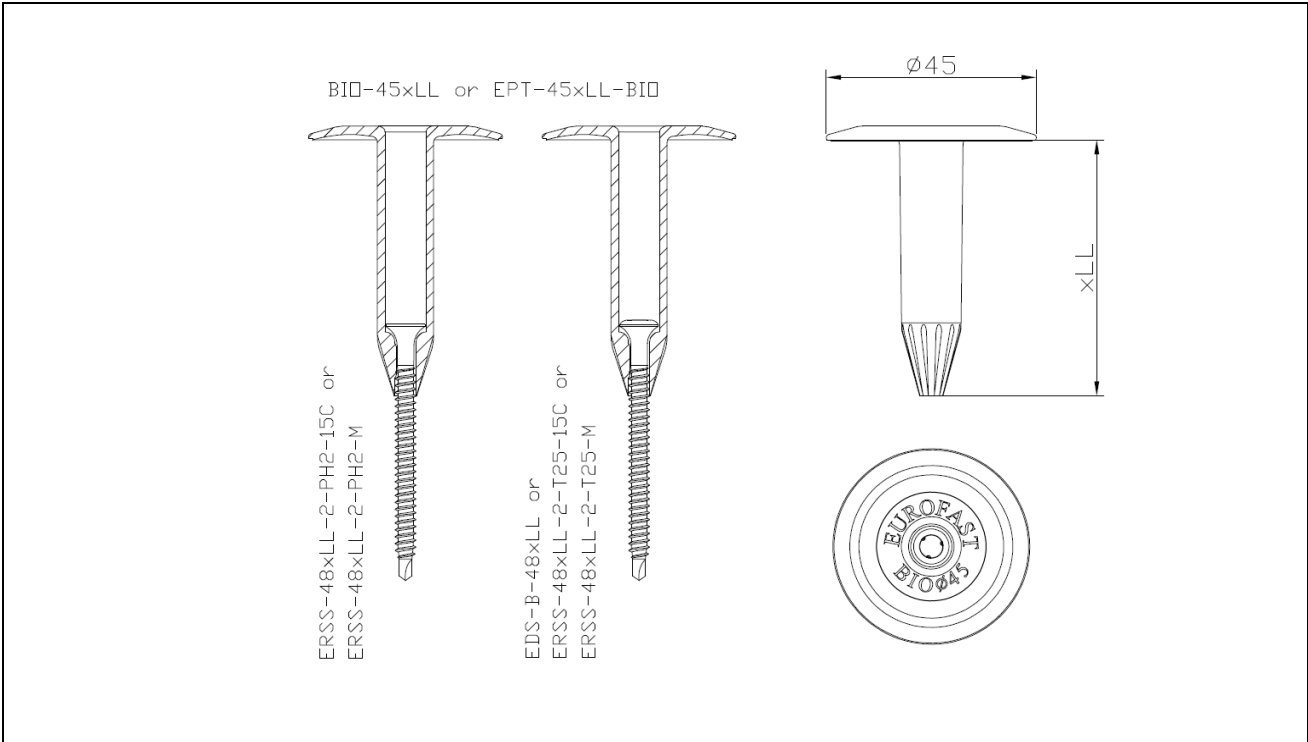
**Installation data:**

Max. drilling capacity in steel substrate:	2x1,25 mm
HUKAD type:	Bugle HUKAD / Raised Bugle HUKAD
Recess:	PH2 / TX25
Fixing in steel substrate:	Minimum 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

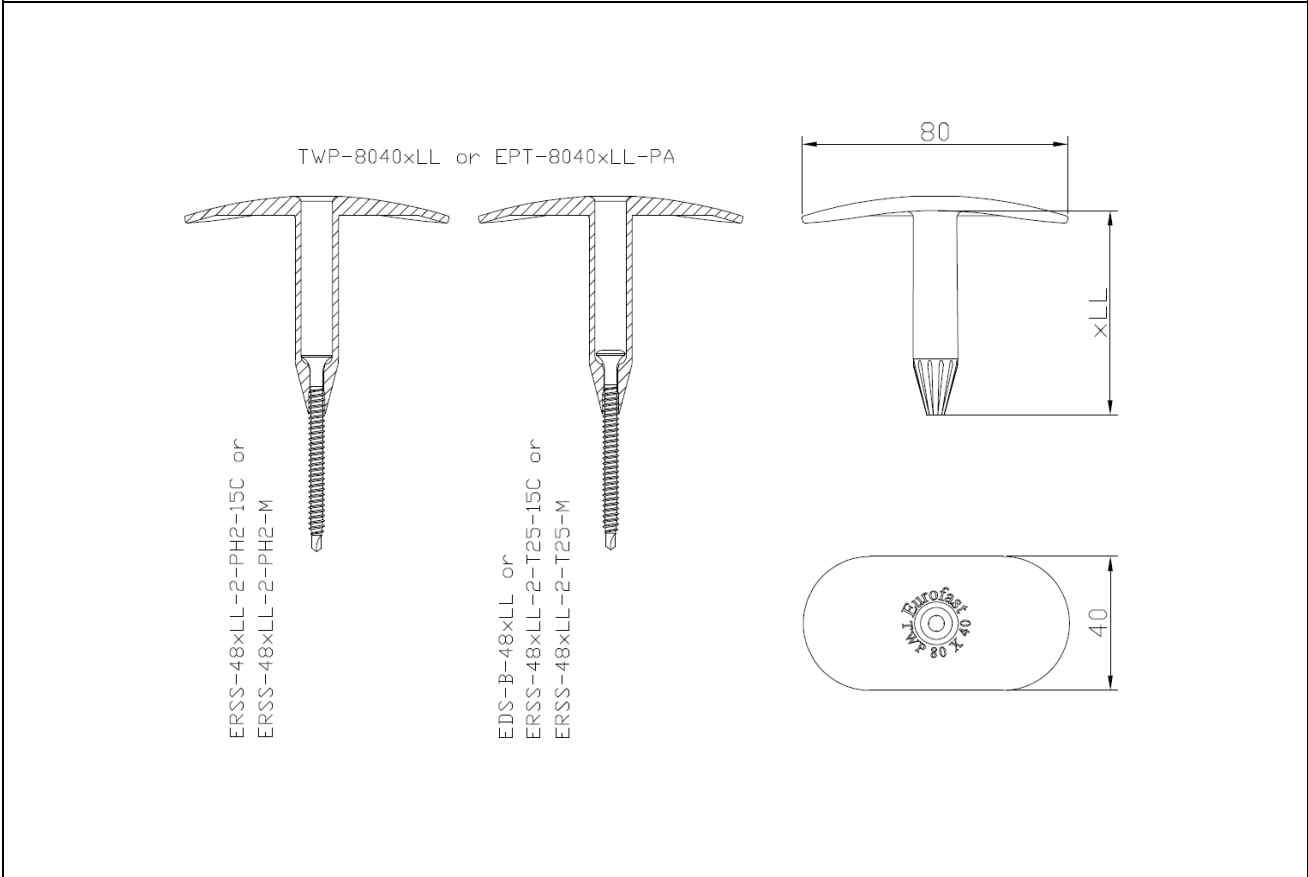
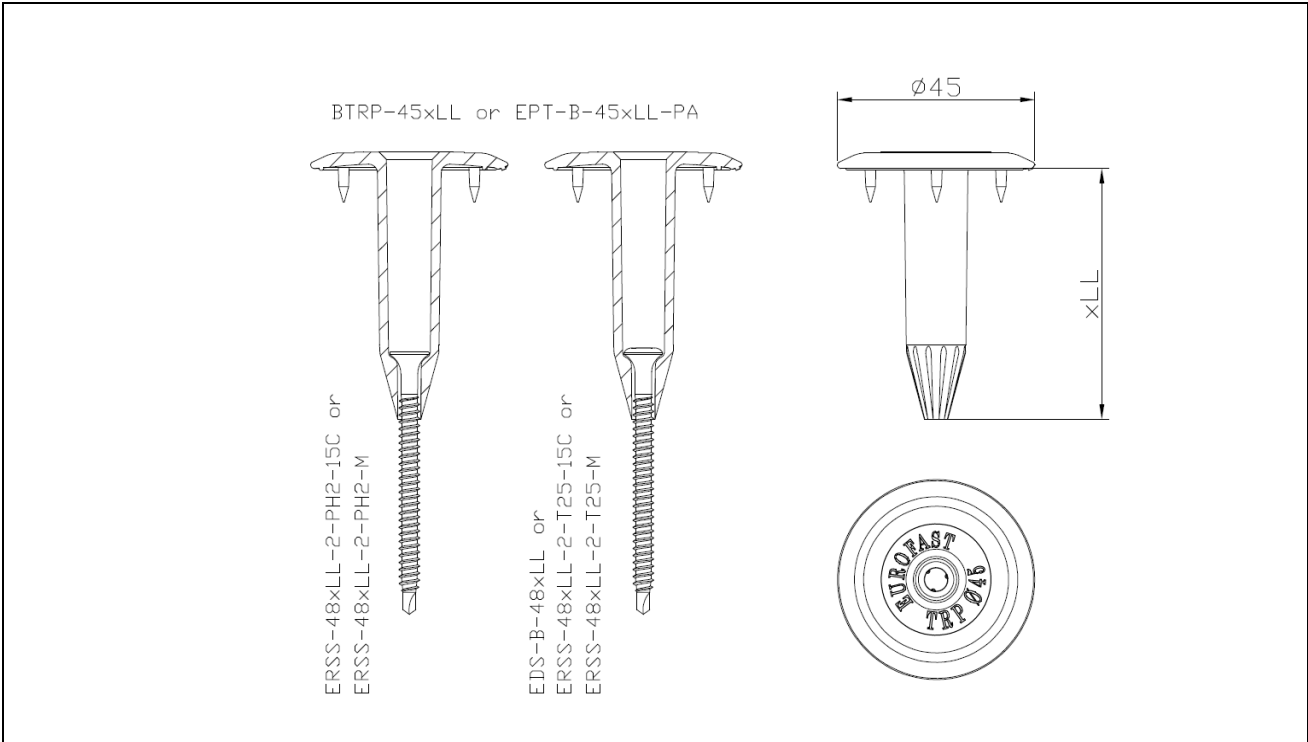
**Eurofast Flat Roof Fasteners**

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)

**Annex B.3**

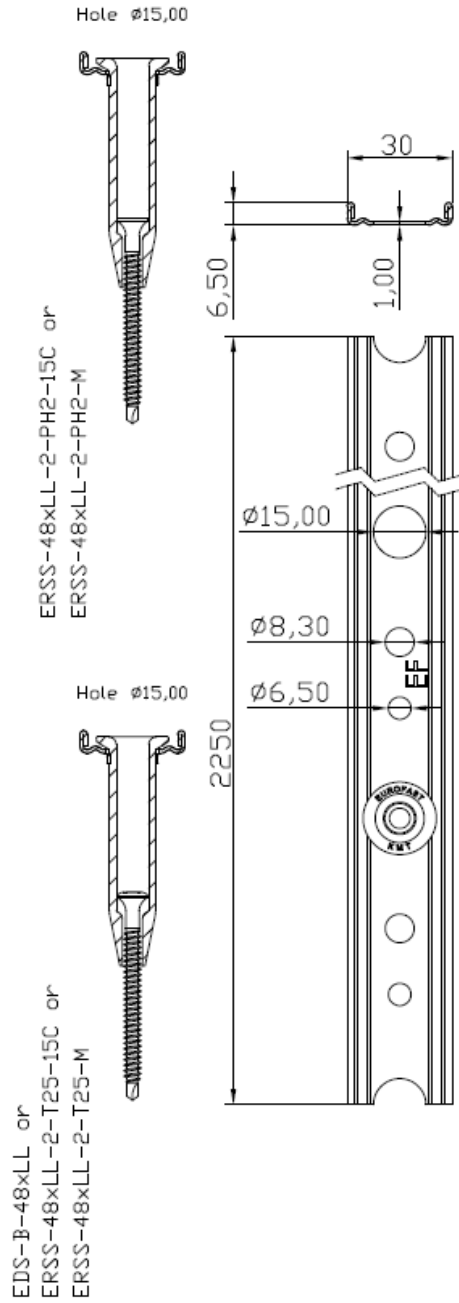


<b>Eurofast Flat Roof Fasteners</b>	
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	<b>Annex B.4</b>

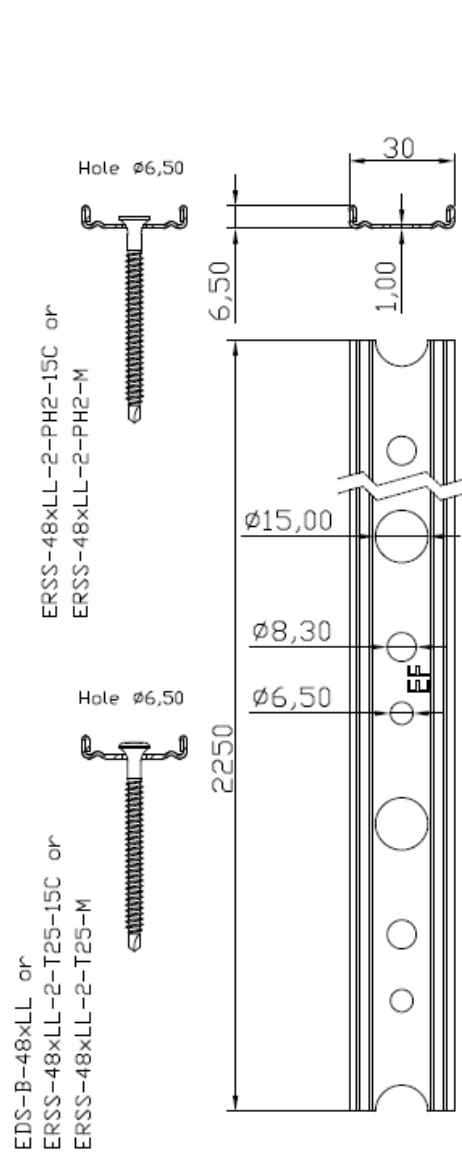


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.5</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	

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

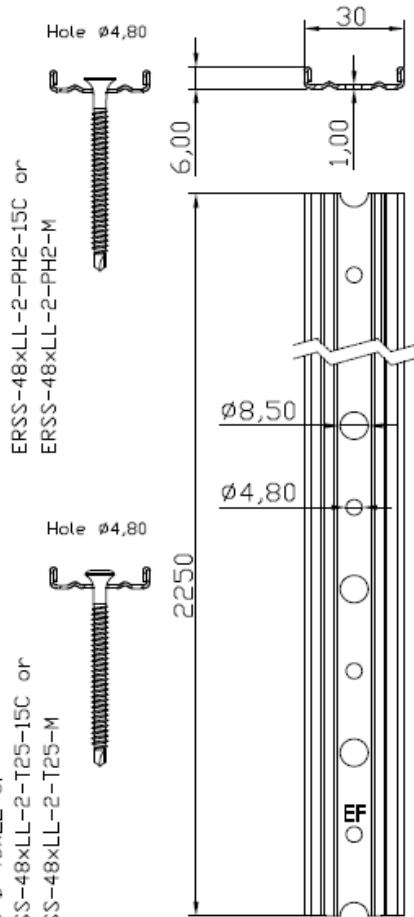


**Eurofast Flat Roof Fasteners**

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

**Annex B.6**

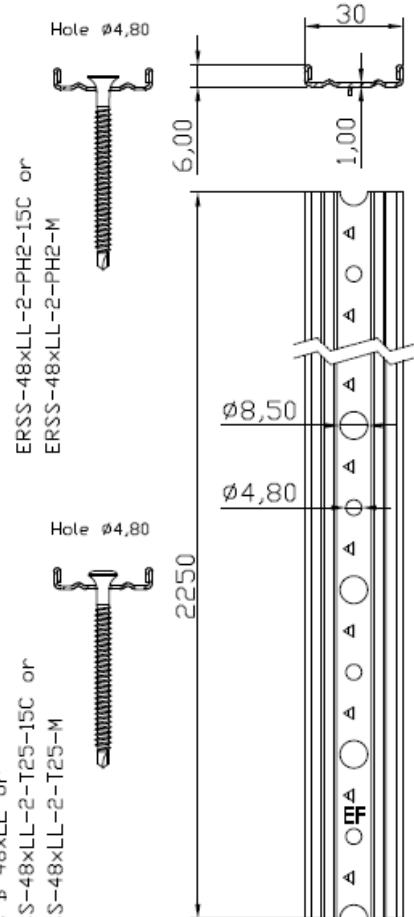
EDF-BAR F or  
ETM-2250-30-4.8-8.5-1.0



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



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



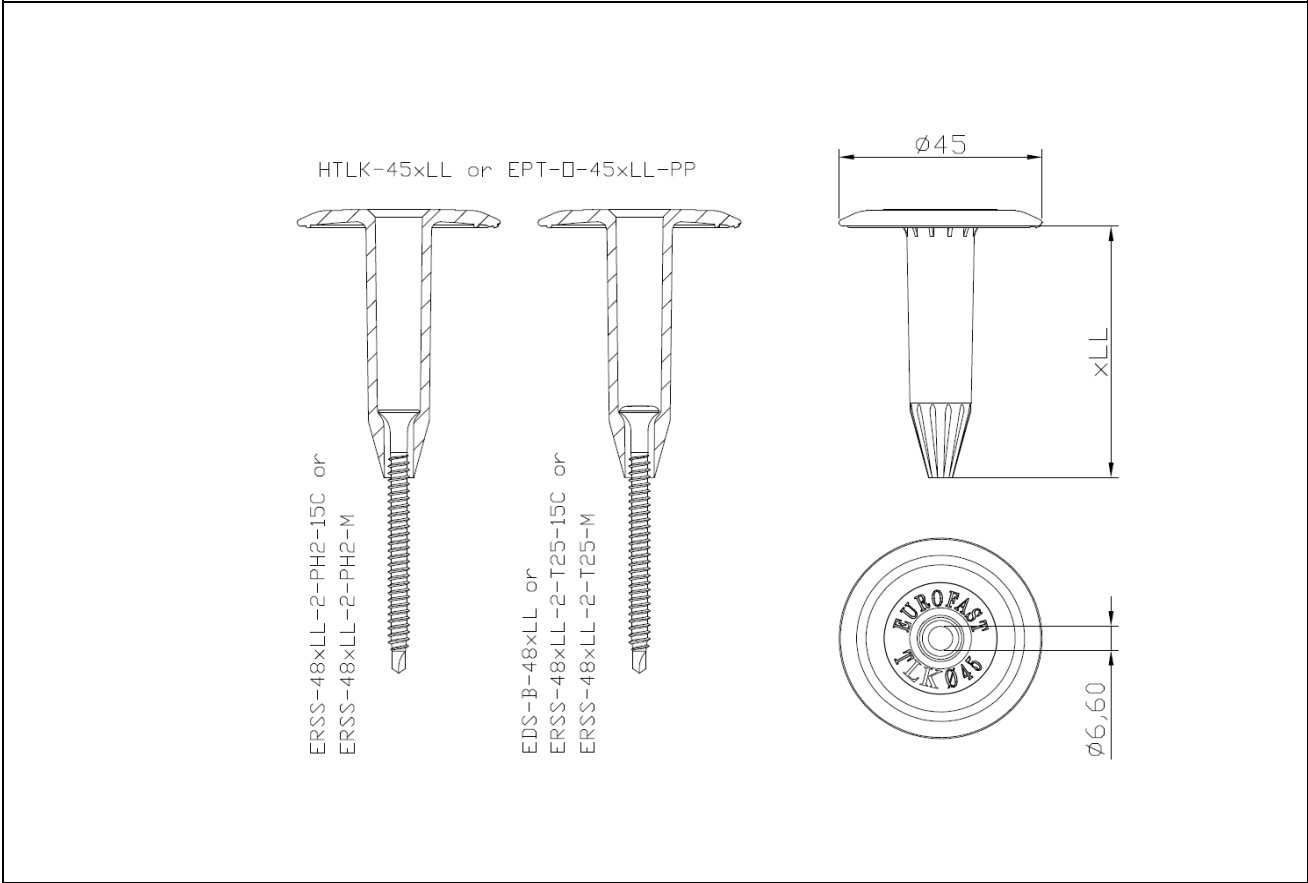
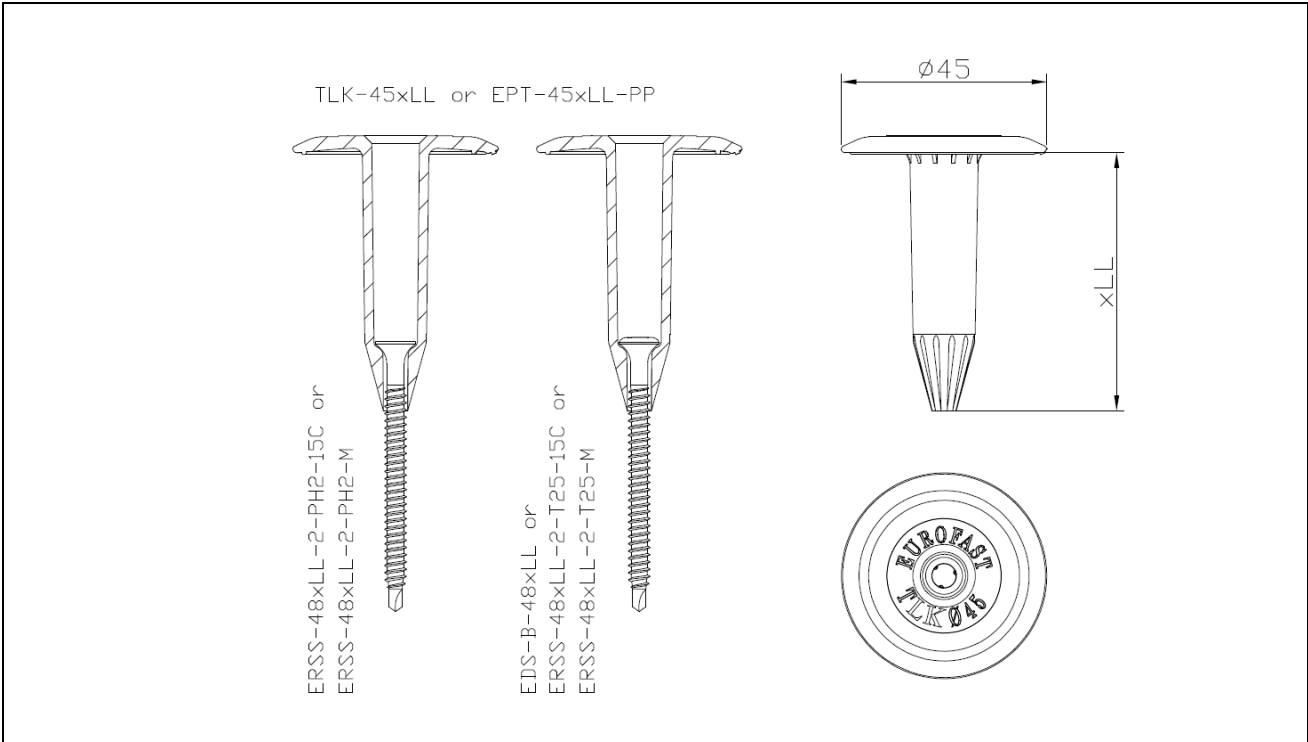
EDS-B-48xLL or  
ERSS-48xLL-2-T25-15C or  
ERSS-48xLL-2-T25-M



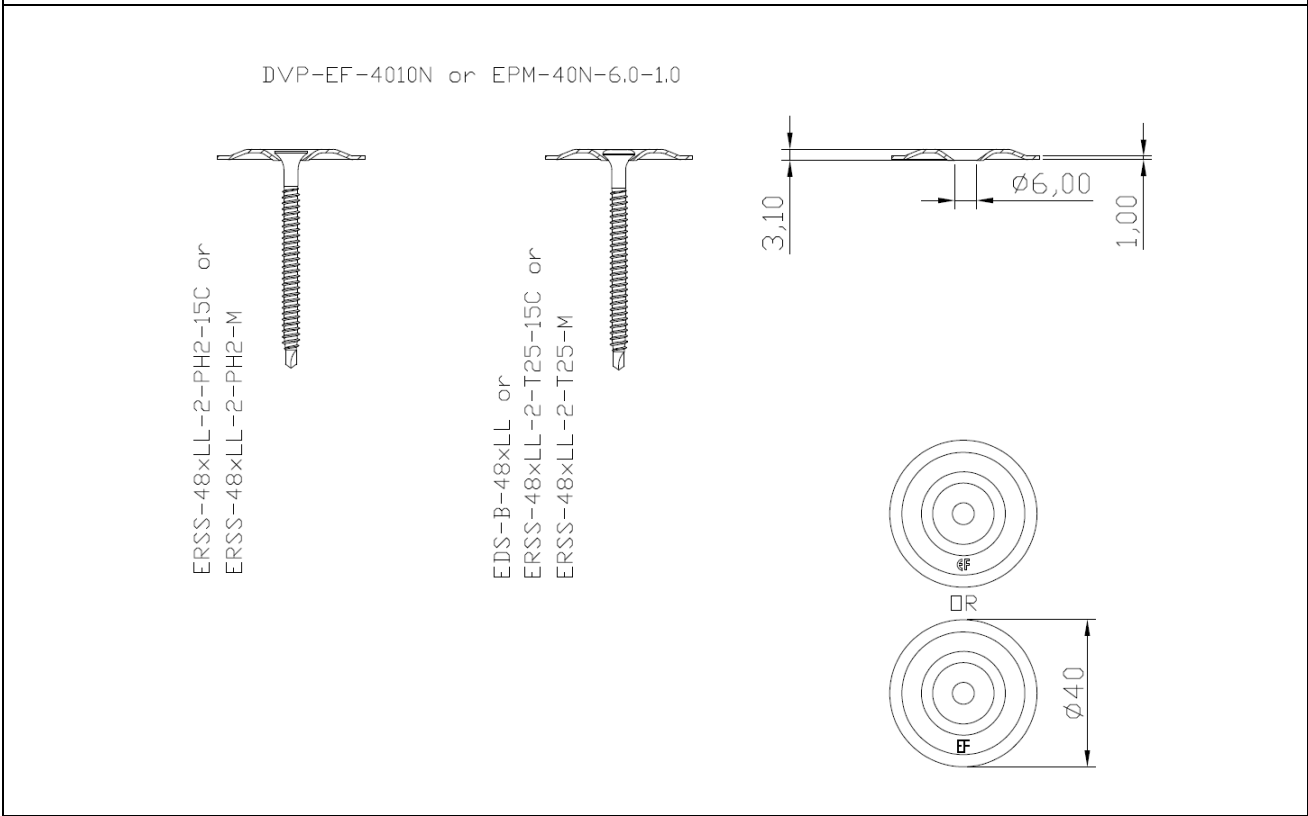
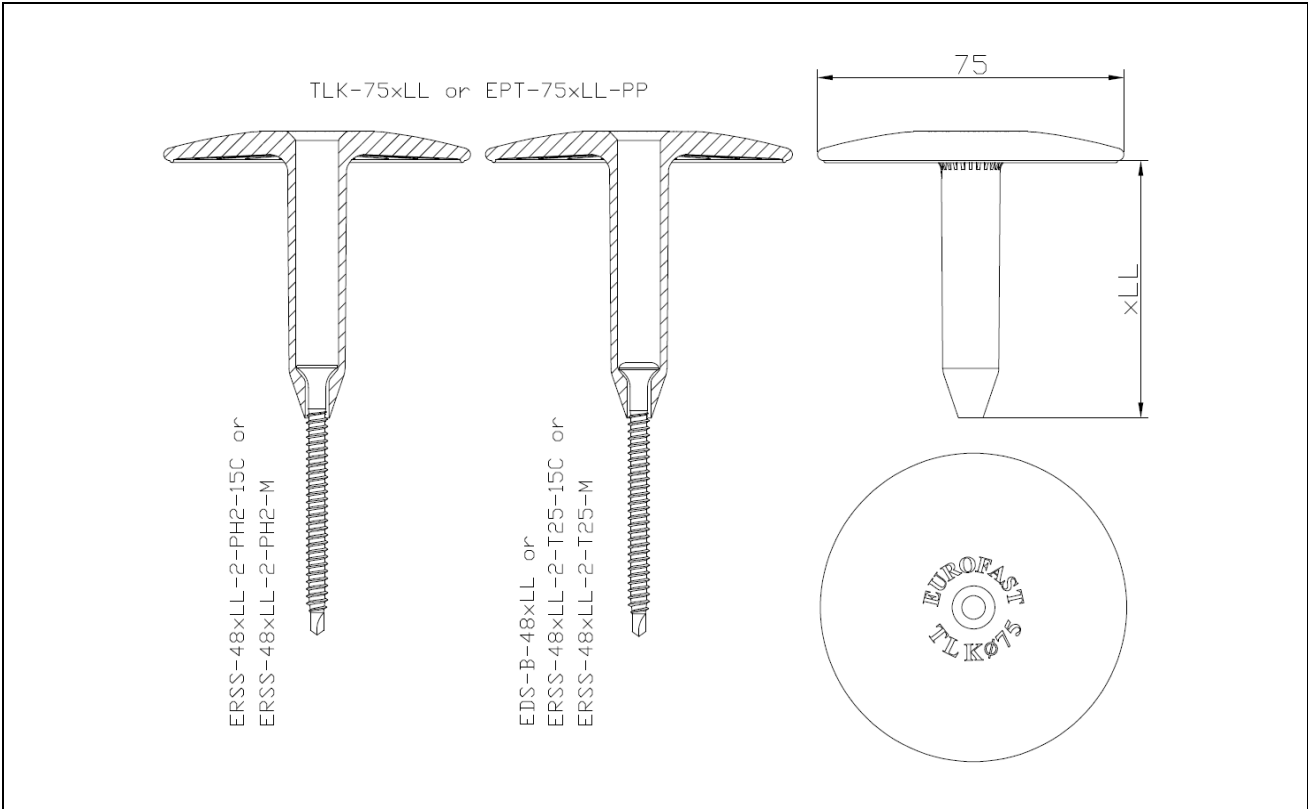
**Eurofast Flat Roof Fasteners**

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)

**Annex B.7**

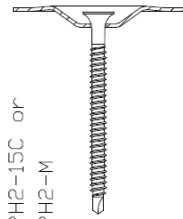


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.8</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	

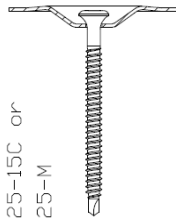


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.9</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	

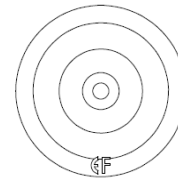
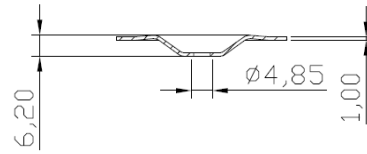
DVP-EF-5010DFR or EPM-50D-4.85-1.0



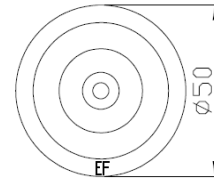
ERSS-48xLL-2-PH2-15C or  
ERSS-48xLL-2-PH2-M



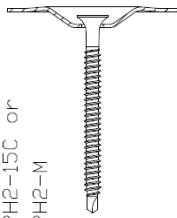
EDS-B-48xLL or  
ERSS-48xLL-2-T25-15C or  
ERSS-48xLL-2-T25-M



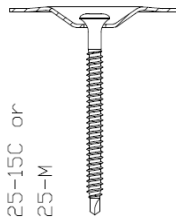
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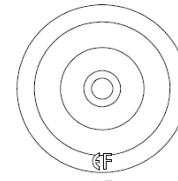
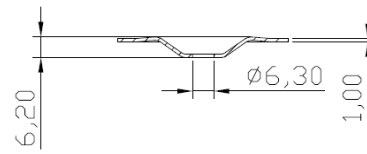
DVP-EF-5010D or EPM-50D-6.3-1.0



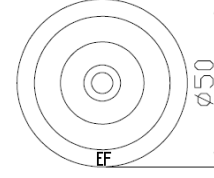
ERSS-48xLL-2-PH2-15C or  
ERSS-48xLL-2-PH2-M



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



OR



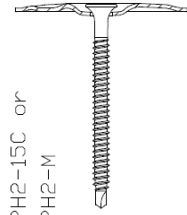
**Eurofast Flat Roof Fasteners**

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)

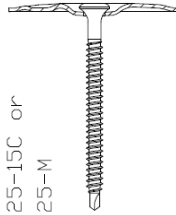
**Annex B.10**



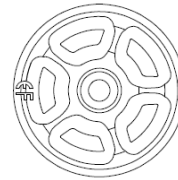
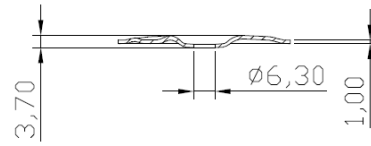
DVP-EF-5010N or EPM-50N-6.3-1.0



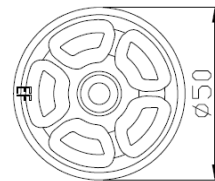
ERSS-48xLL-2-PH2-15C or  
ERSS-48xLL-2-PH2-M



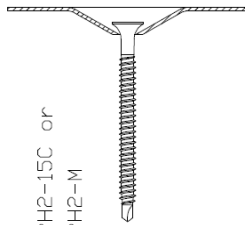
EDS-B-48xLL or  
ERSS-48xLL-2-T25-15C or  
ERSS-48xLL-2-T25-M



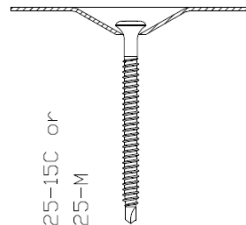
OR



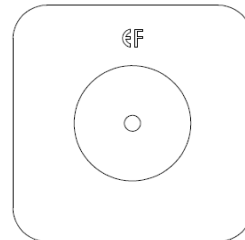
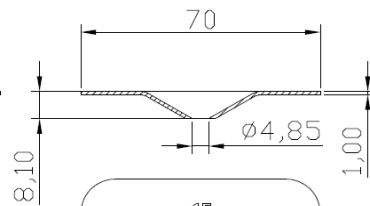
DVP-EF-7070D or EPM-7070D-4.85-1.0



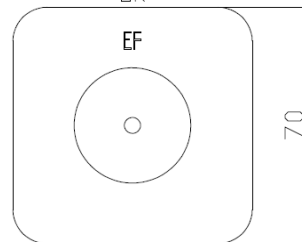
ERSS-48xLL-2-PH2-15C or  
ERSS-48xLL-2-PH2-M



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



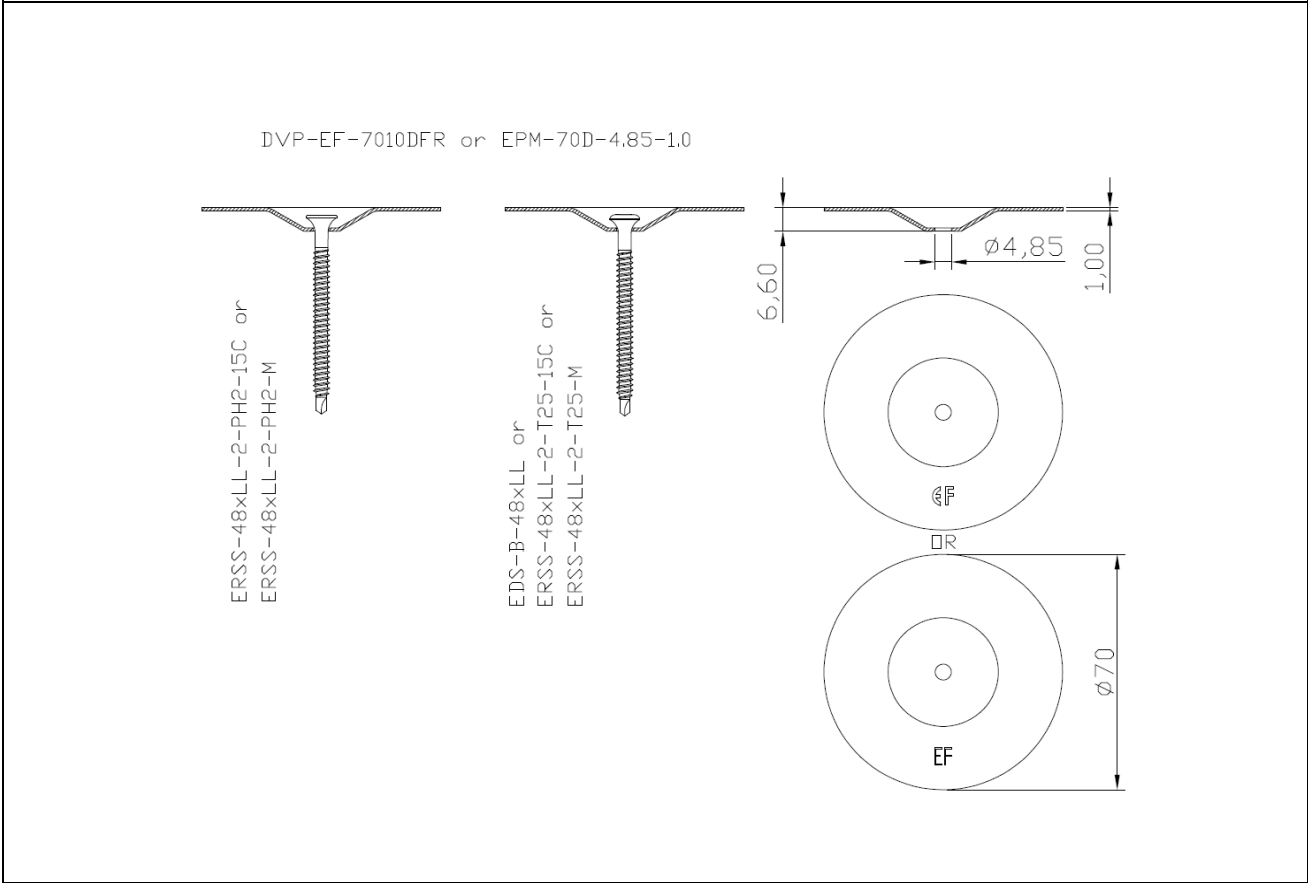
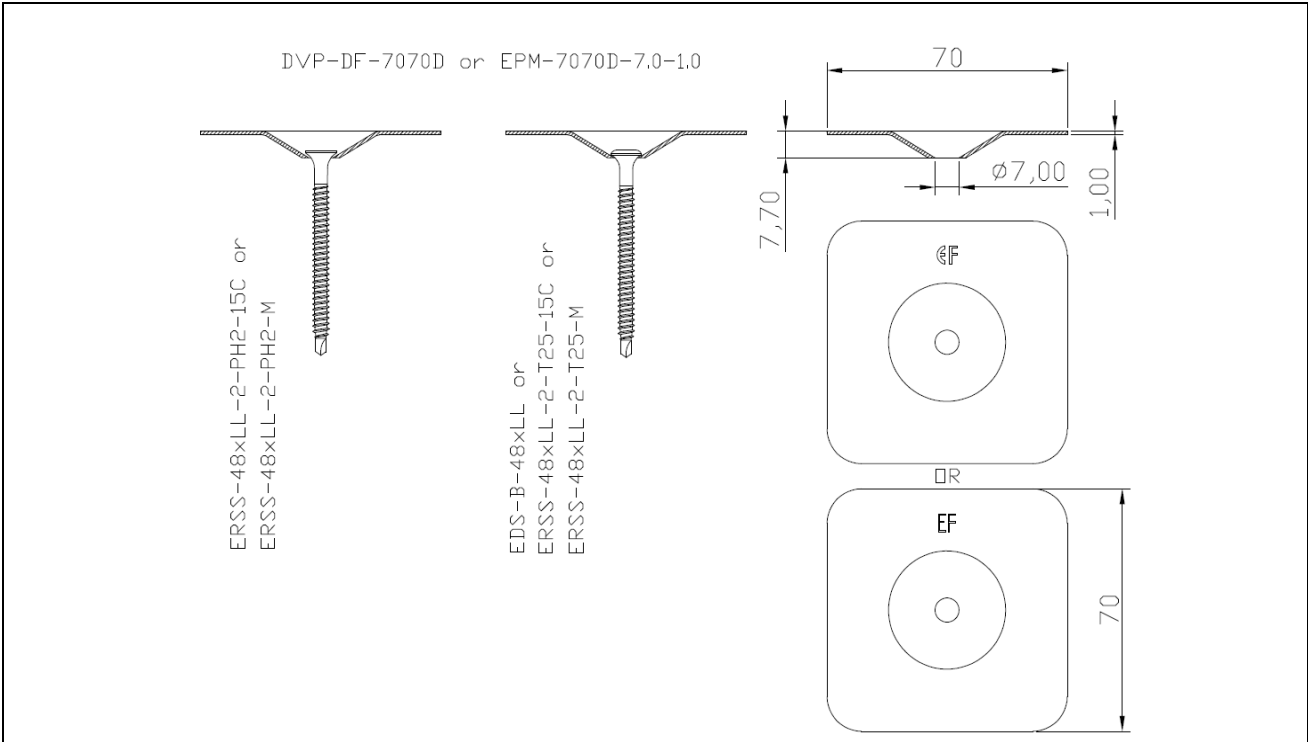
OR



### Eurofast Flat Roof Fasteners

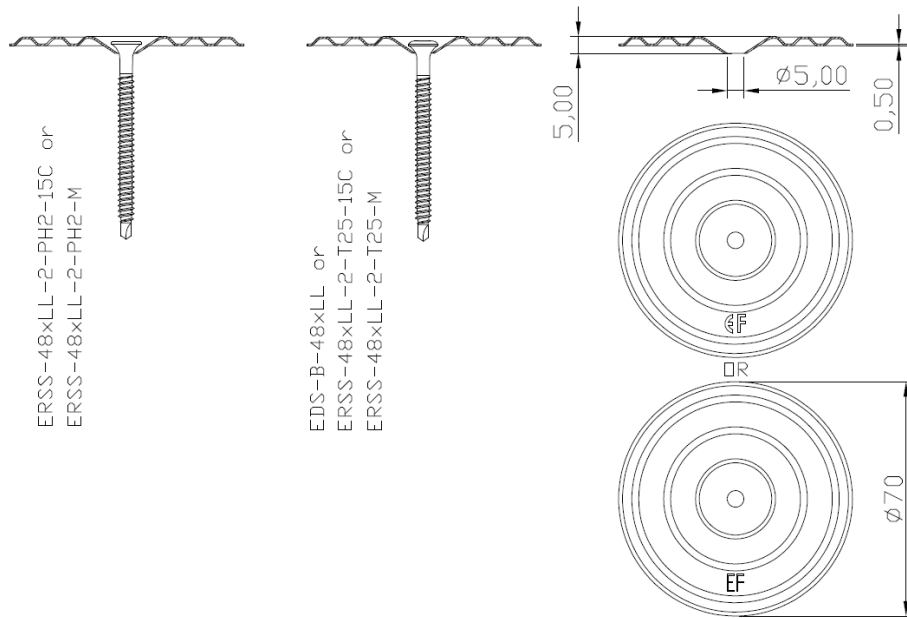
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)  
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

Annex B.11

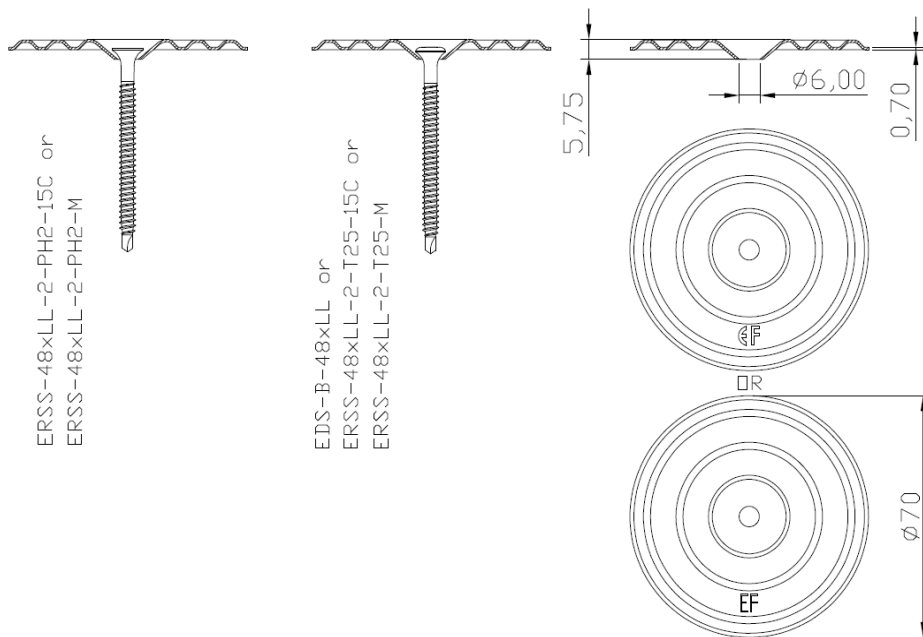


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.12</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	

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



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

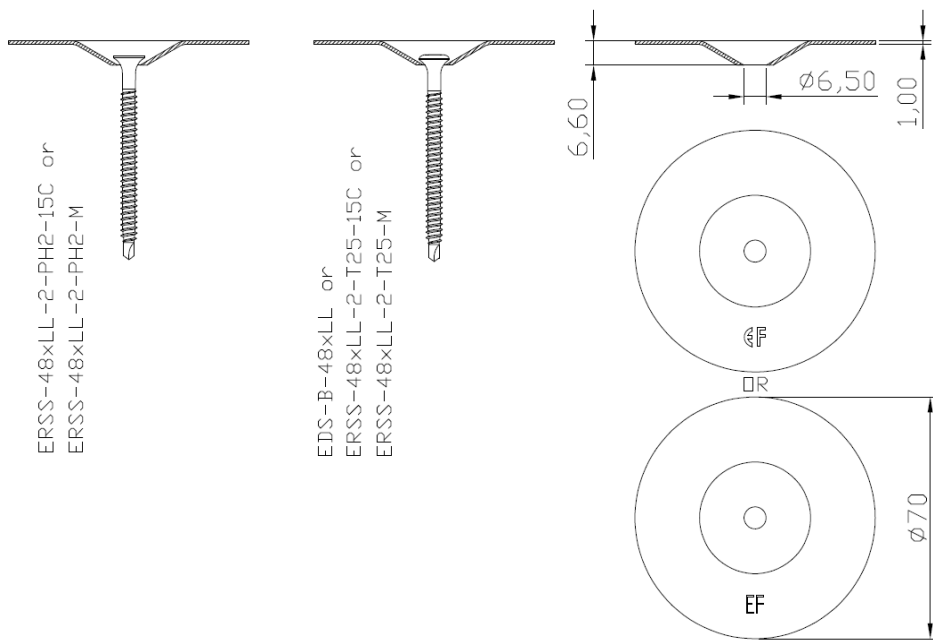


**Eurofast Flat Roof Fasteners**

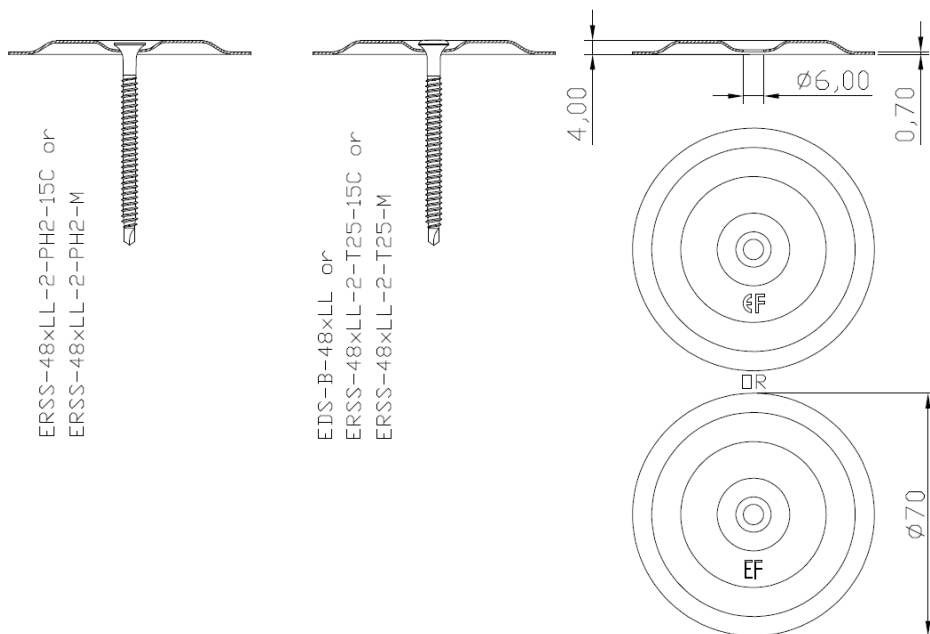
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)  
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

**Annex B.13**

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



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

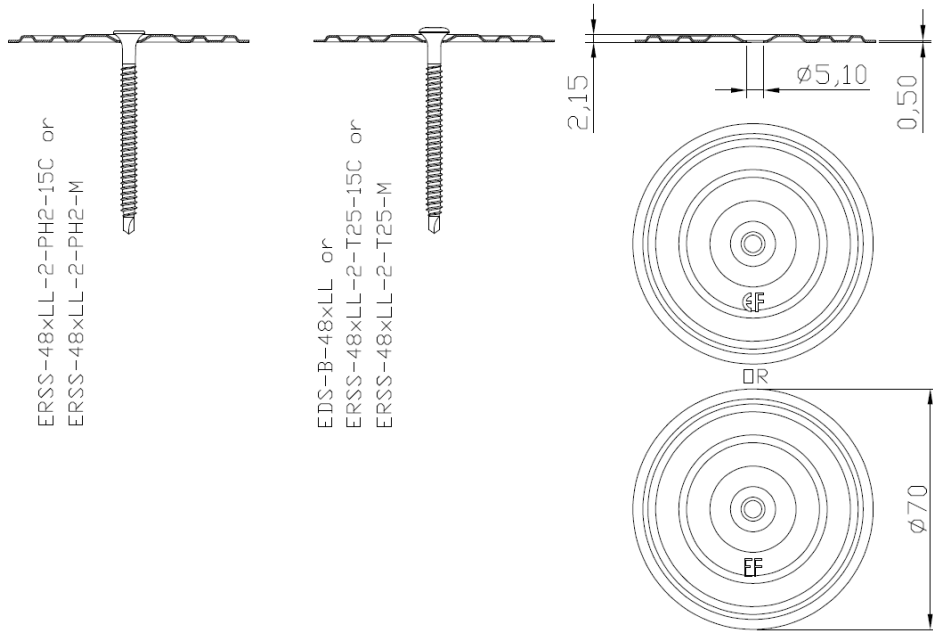


**Eurofast Flat Roof Fasteners**

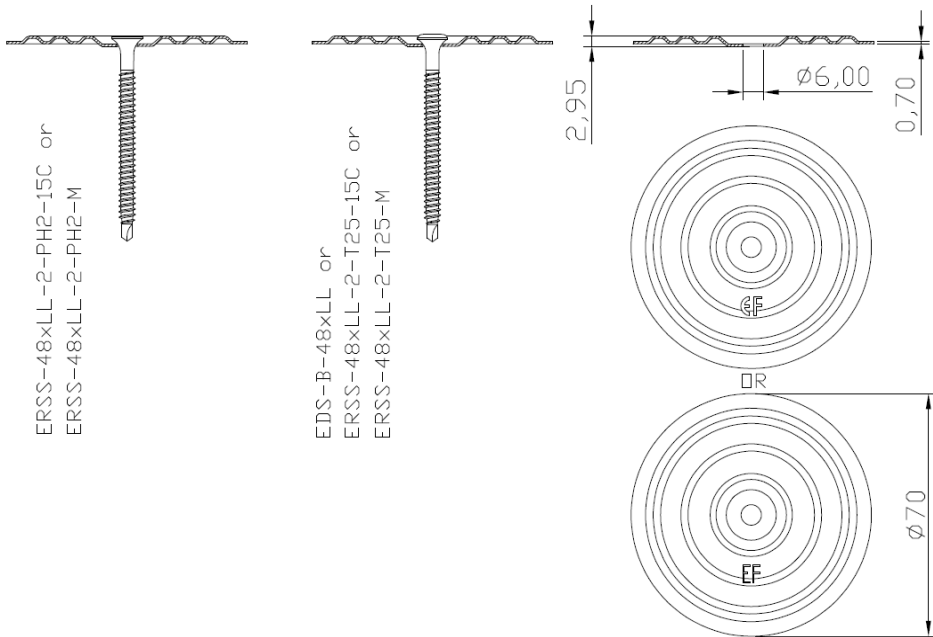
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M)  
(ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)

**Annex B.14**

DVP-EF-7005N or EPM-70N-5.1-0.5



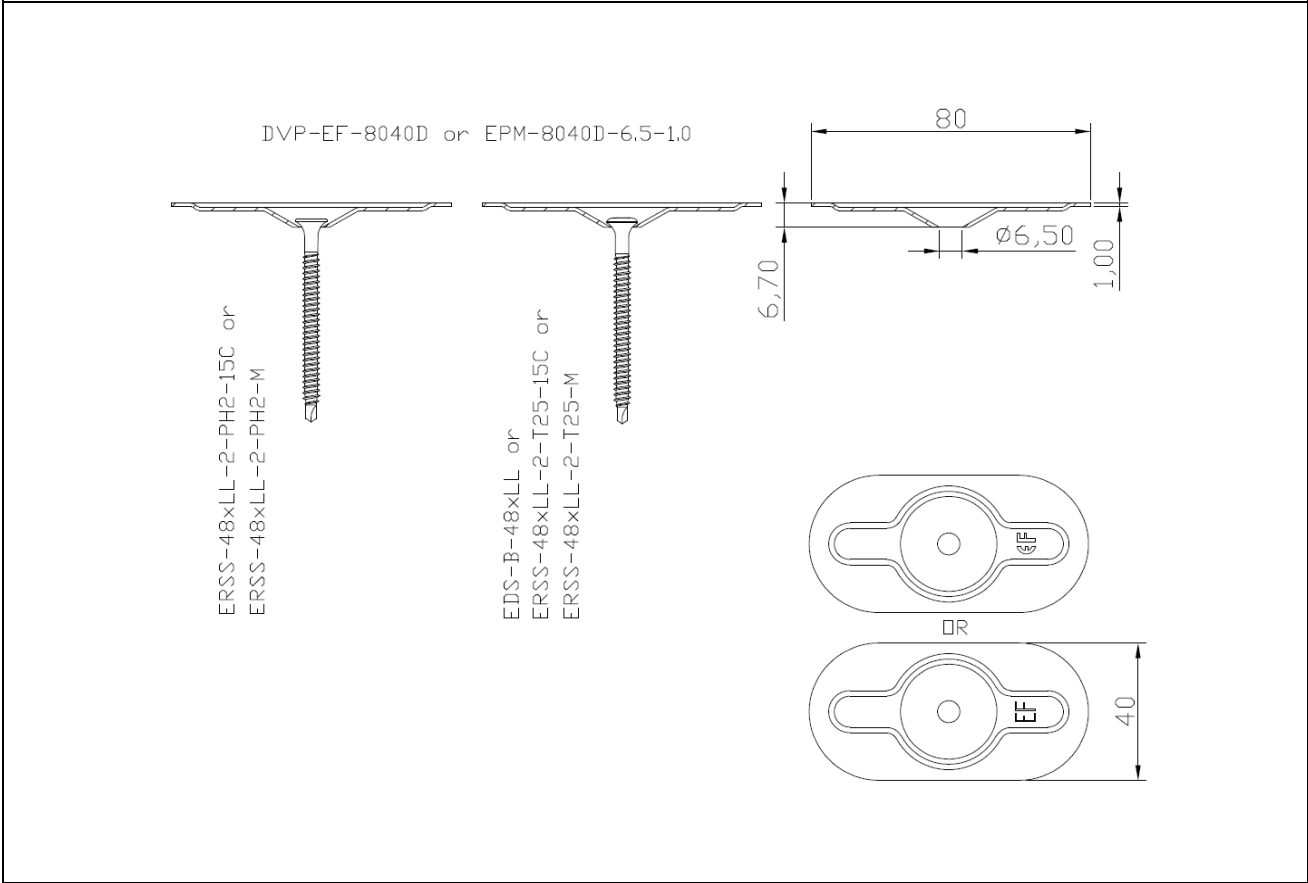
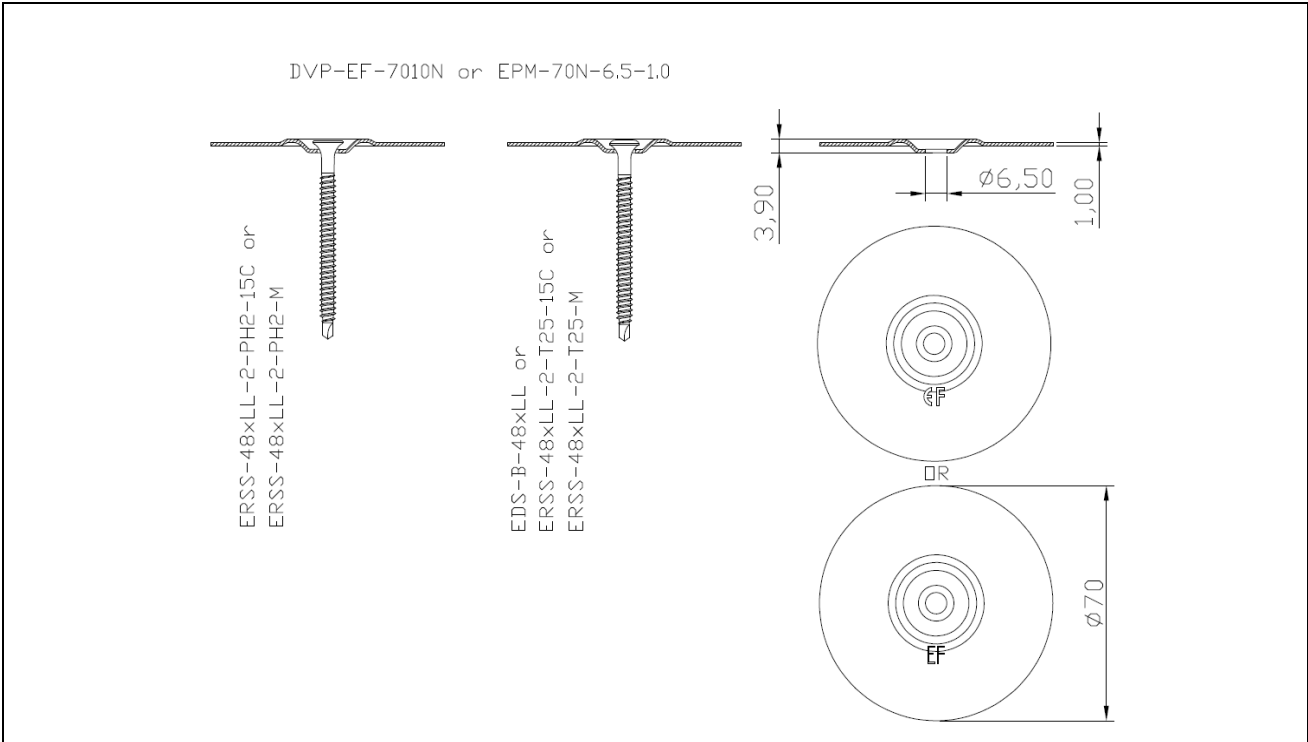
DVP-EF-7007N or EPM-70N-6.0-0.7



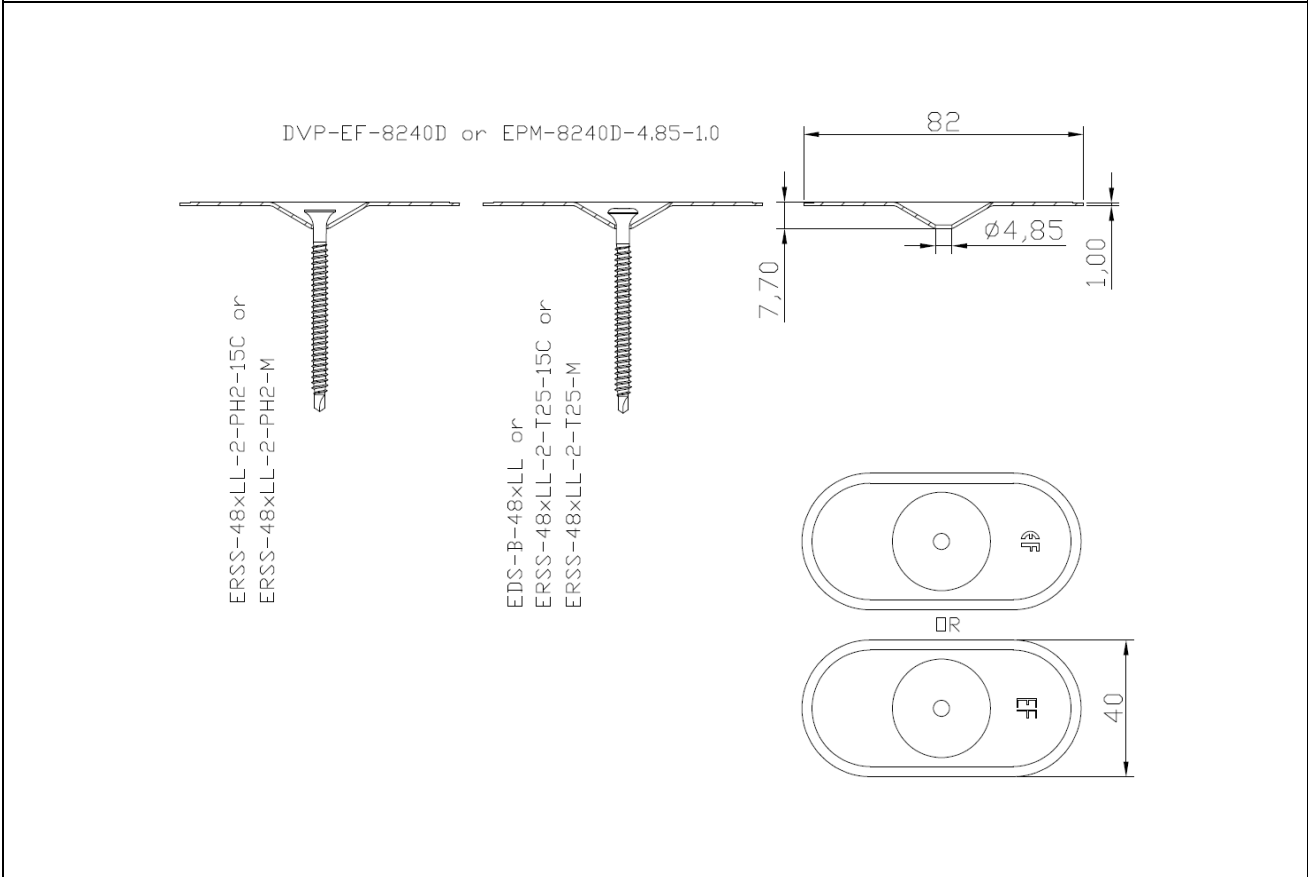
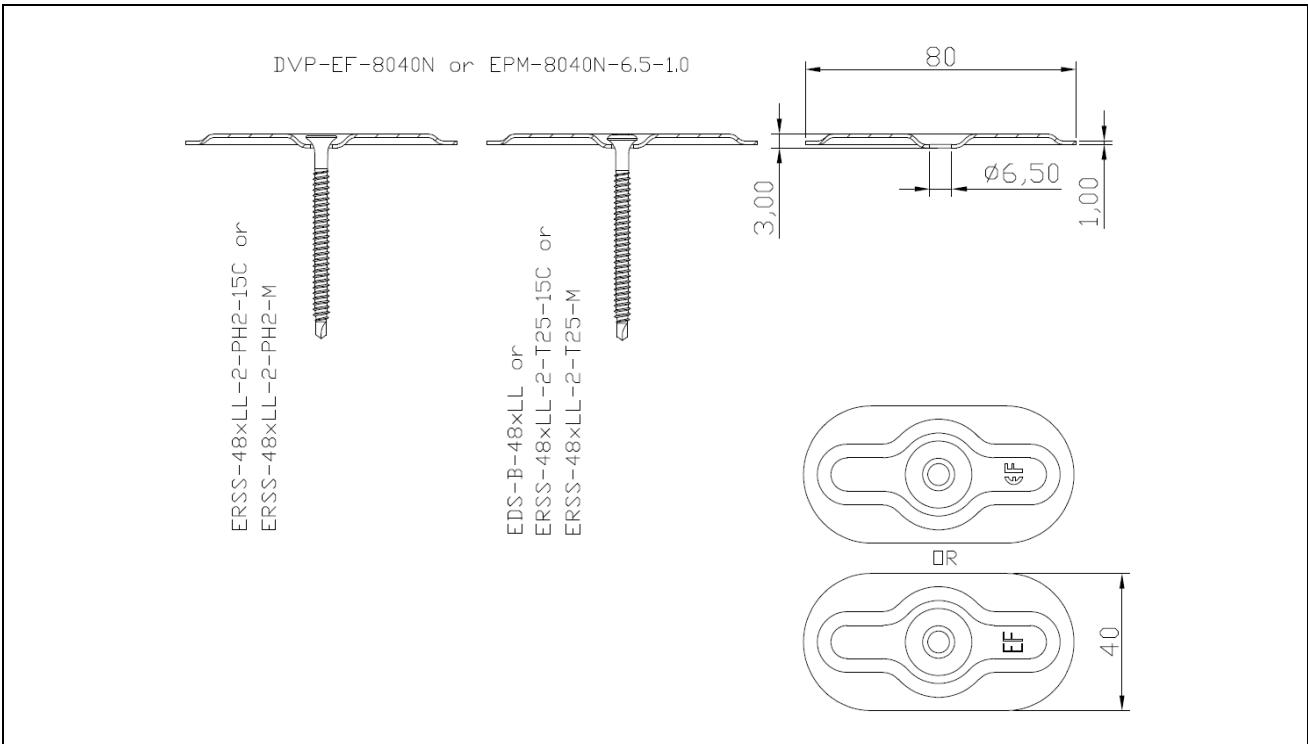
**Eurofast Flat Roof Fasteners**

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)

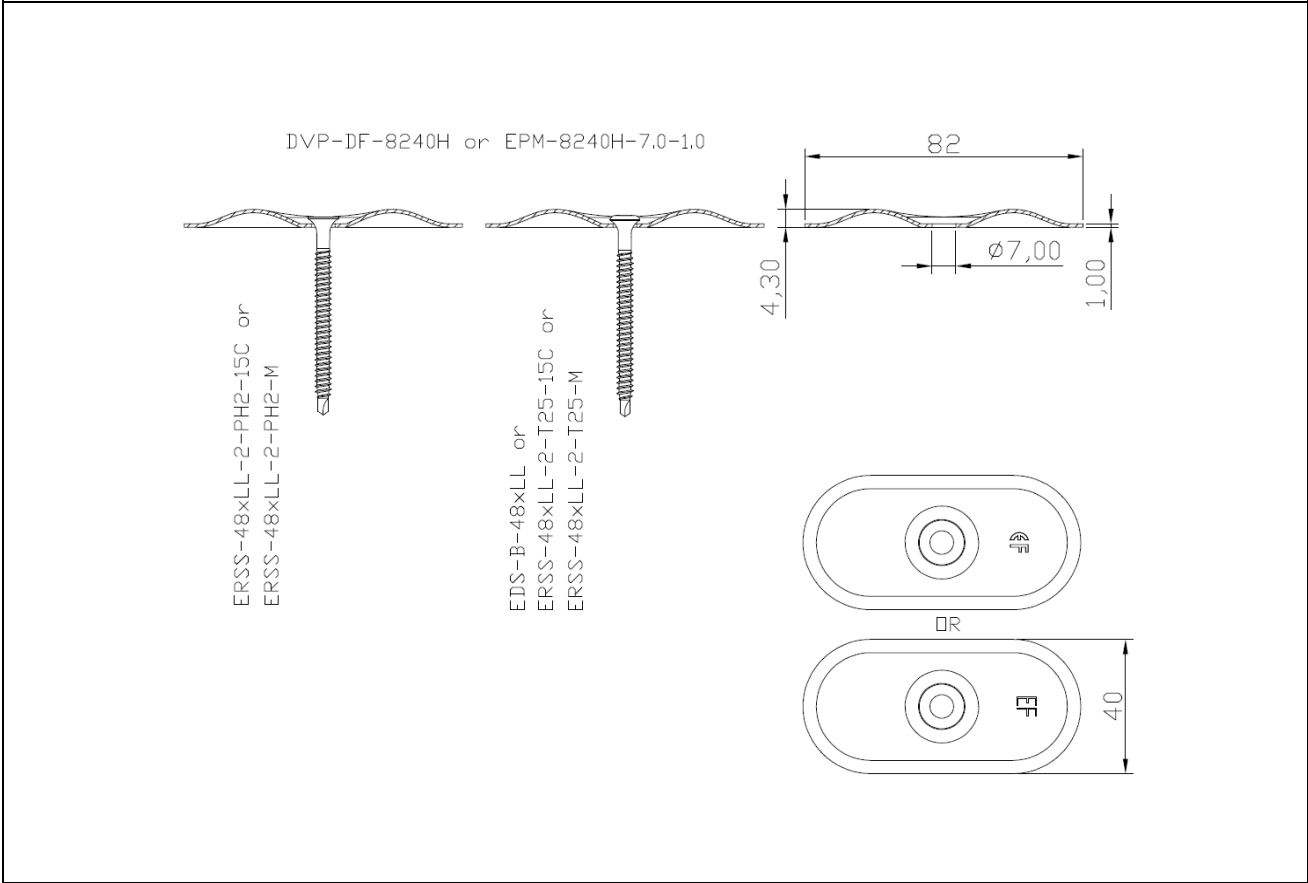
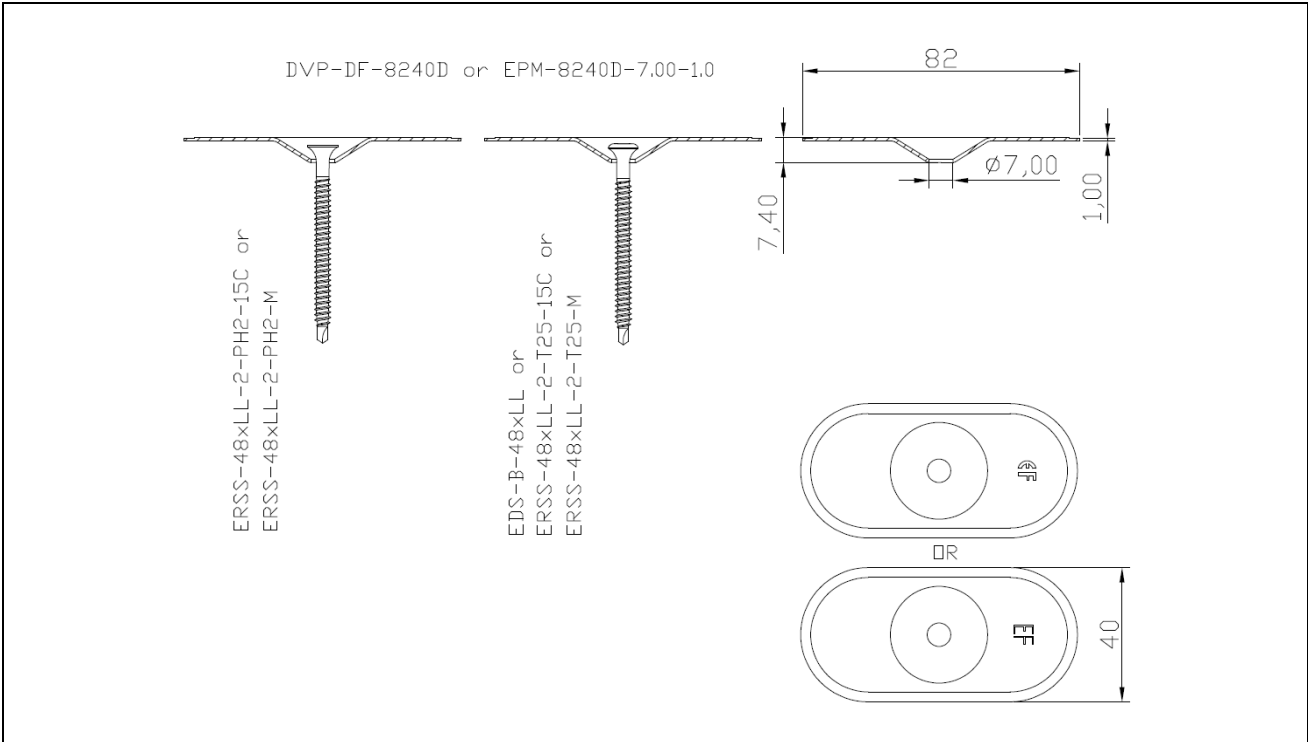
**Annex B.15**



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.16</b>
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)	

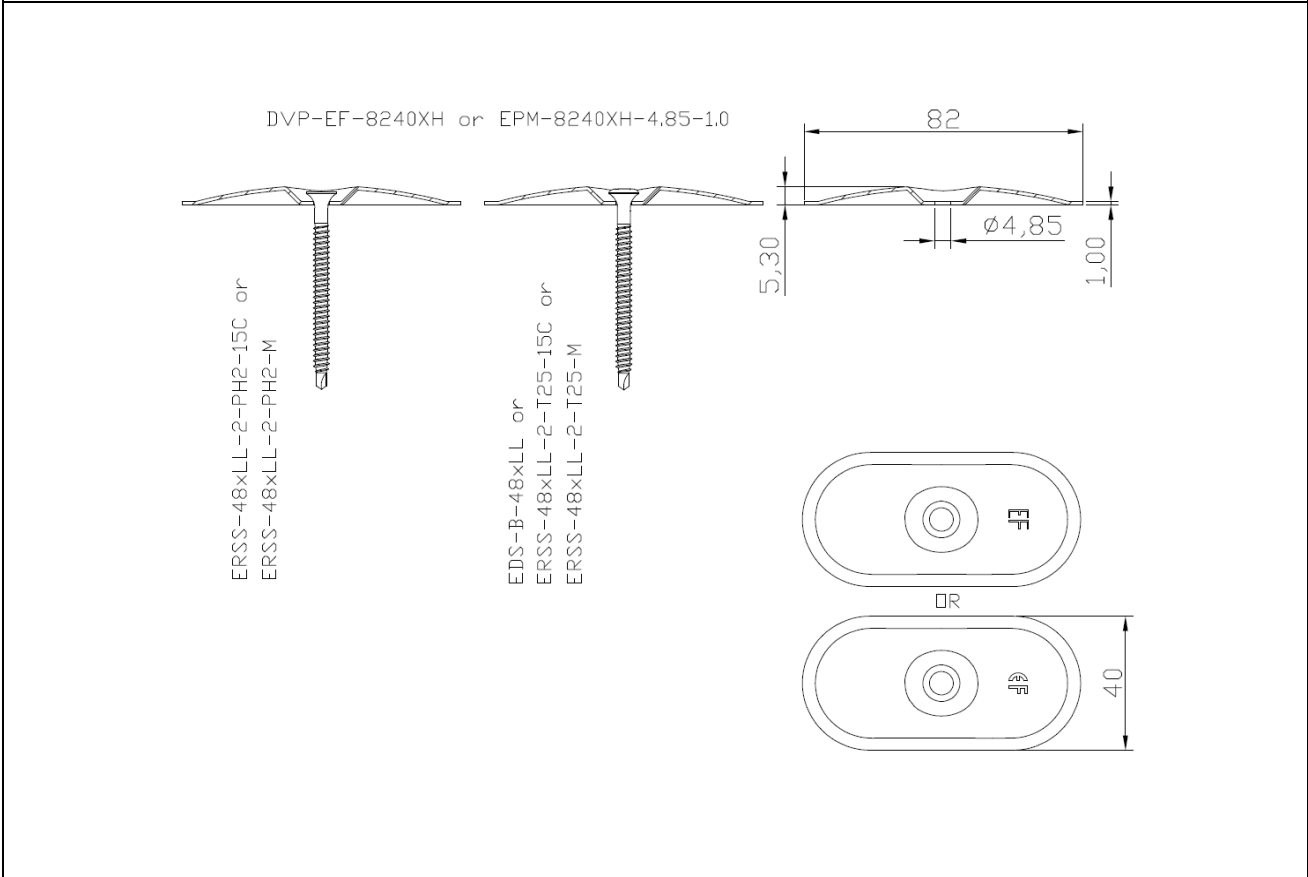
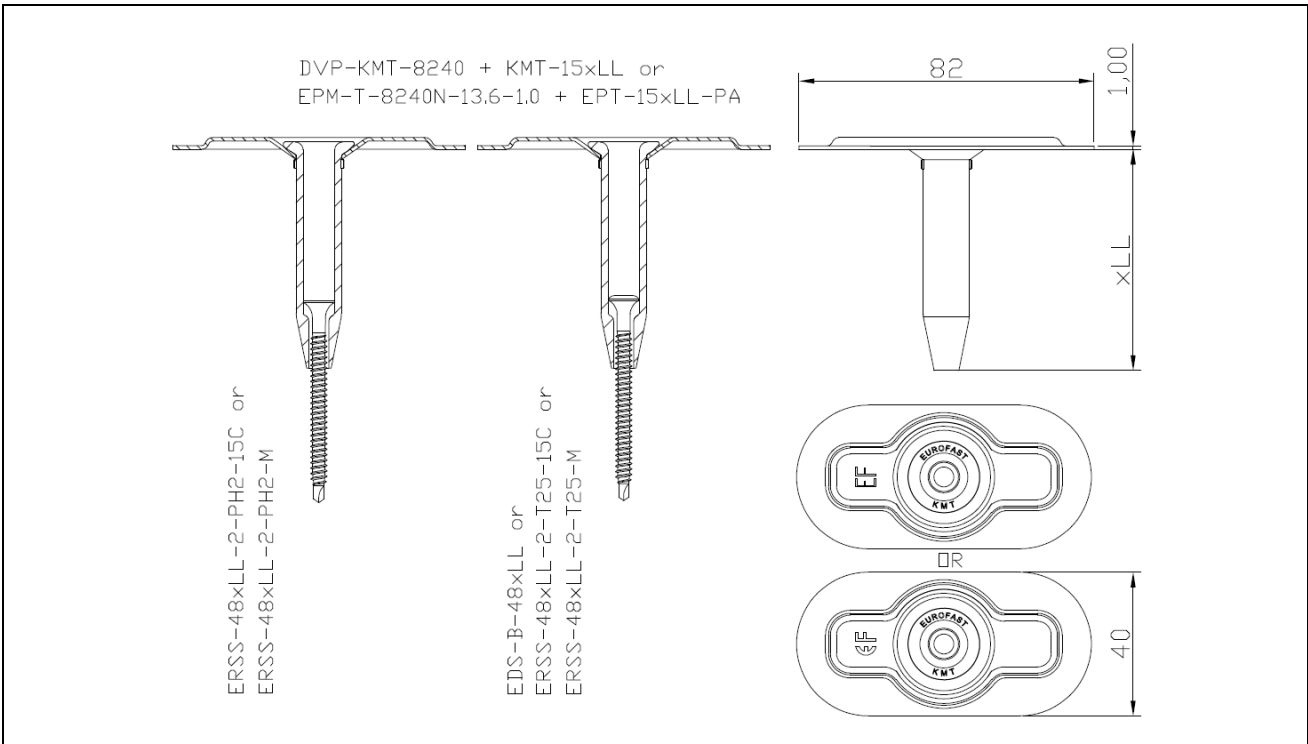


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.17</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	

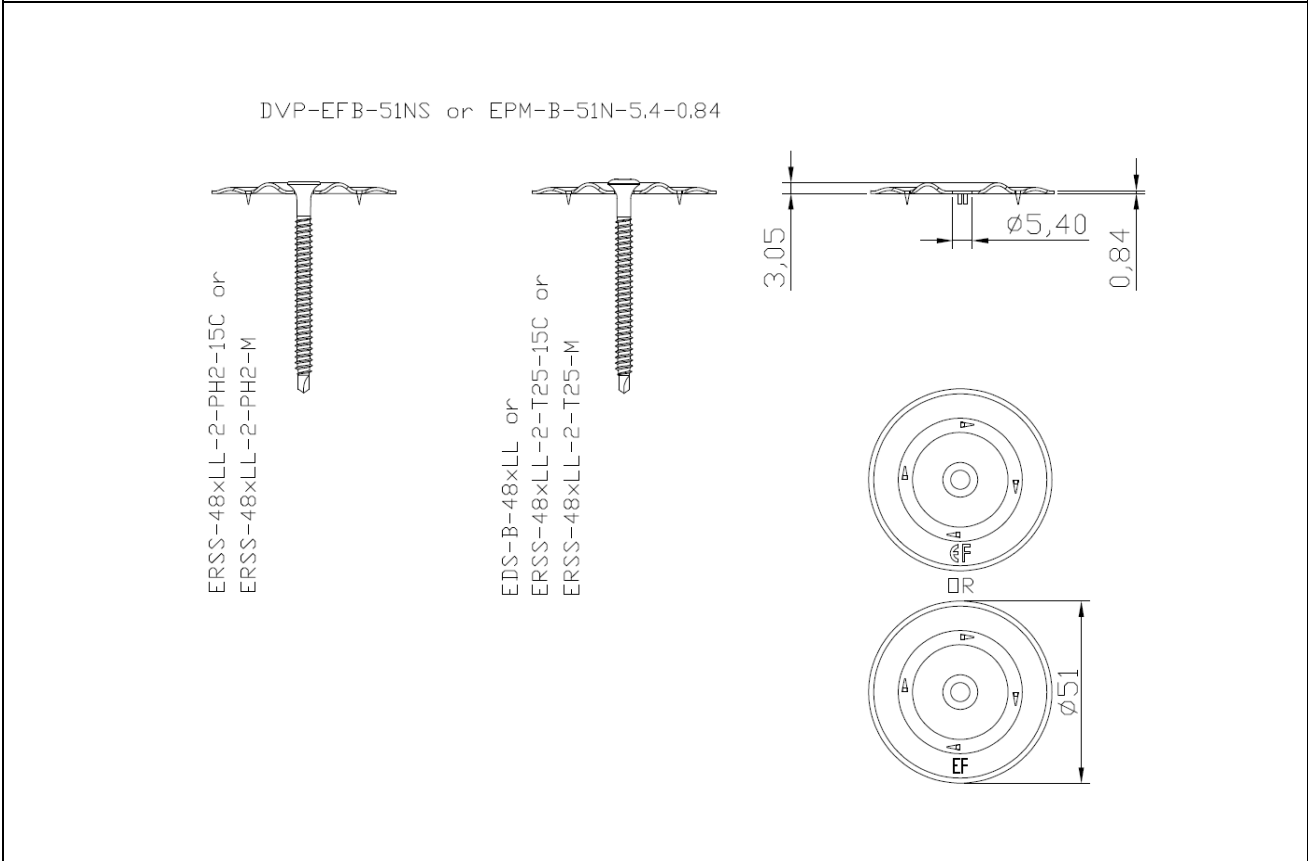
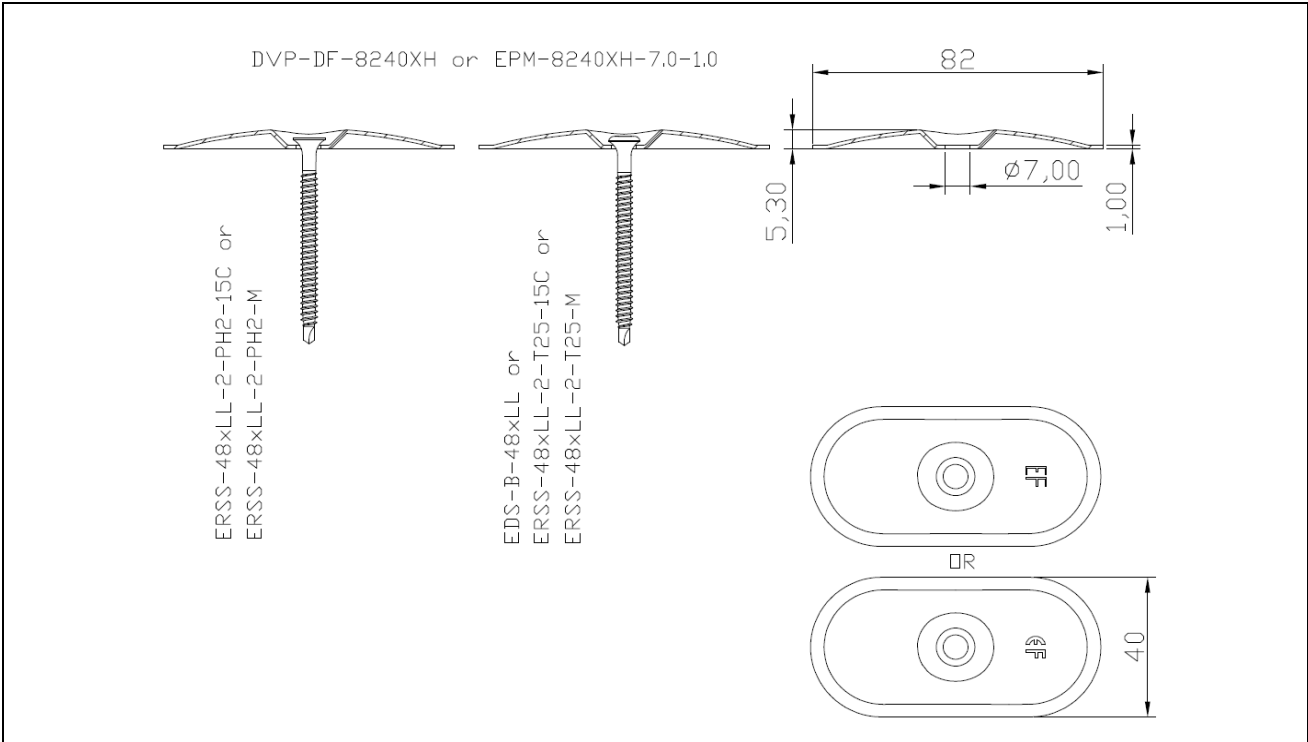


<b>Eurofast Flat Roof Fasteners</b>	
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	<b>Annex B.18</b>

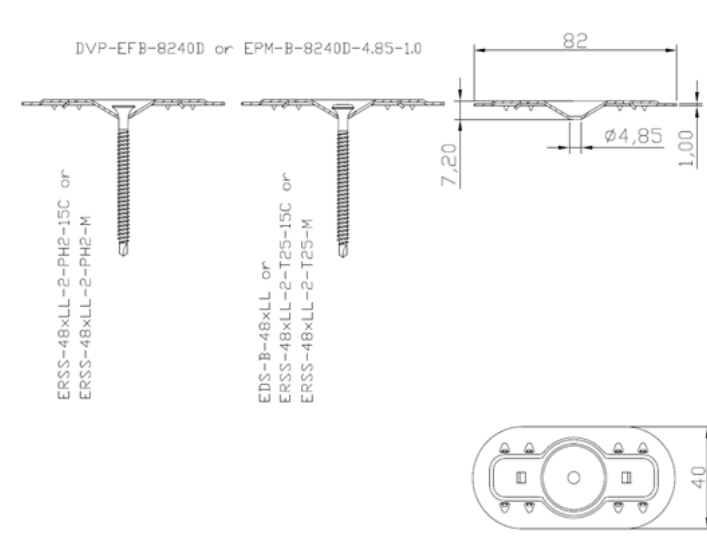
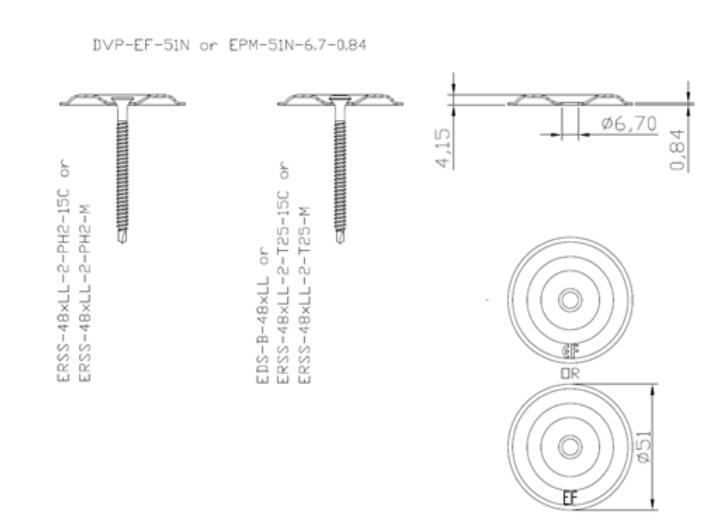




<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.19</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	



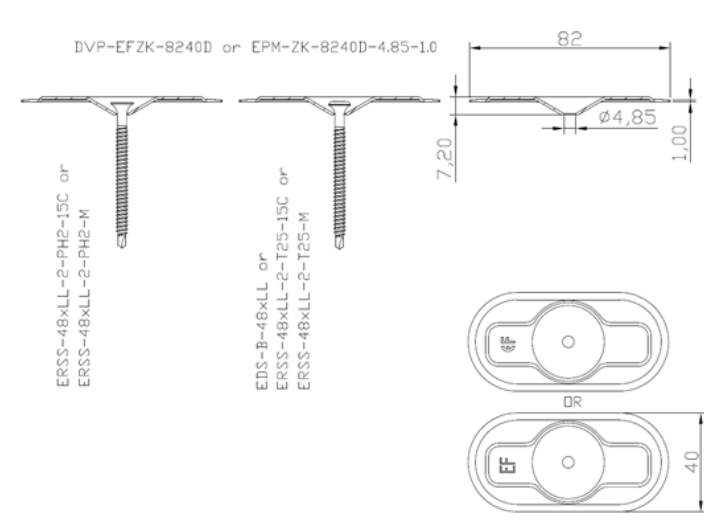
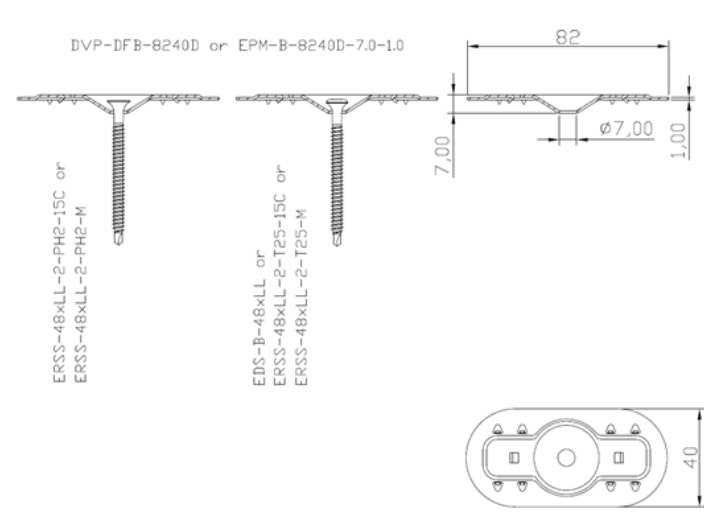
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex B.20</b>
EDS-B-48xLL (ERSS-48xLL-2-PH2-15C or ERSS-48xLL-2-PH2-M) (ERSS-48xLL-2-T25-15C or ERSS-48xLL-2-T25-M)	



### 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)

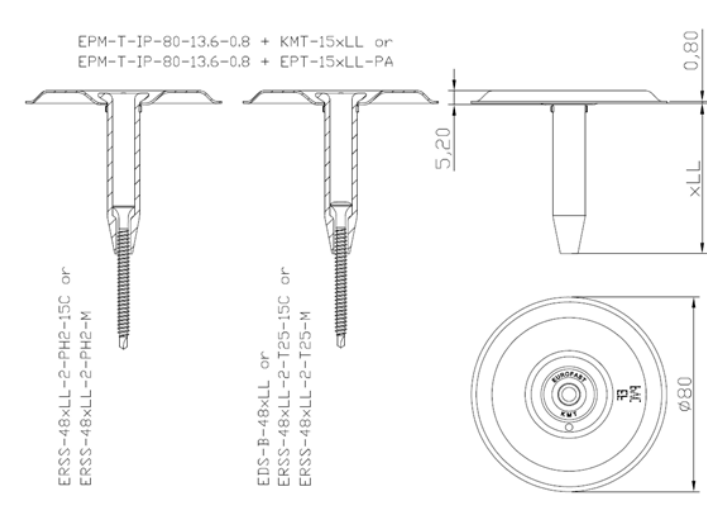
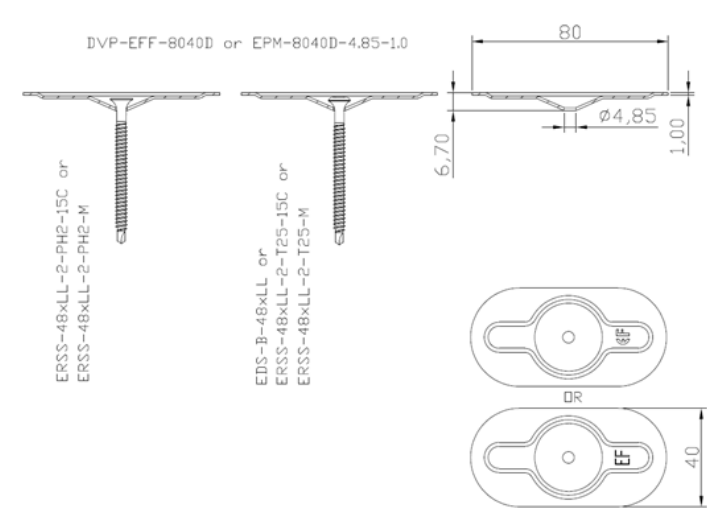
**Annex B.21**



**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)

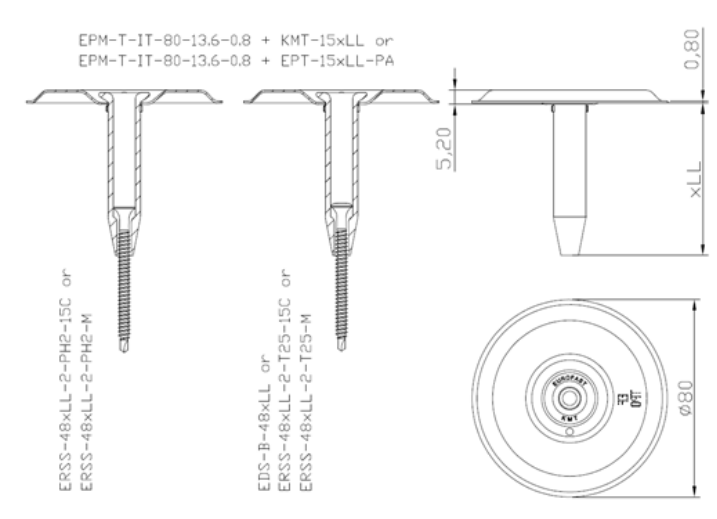
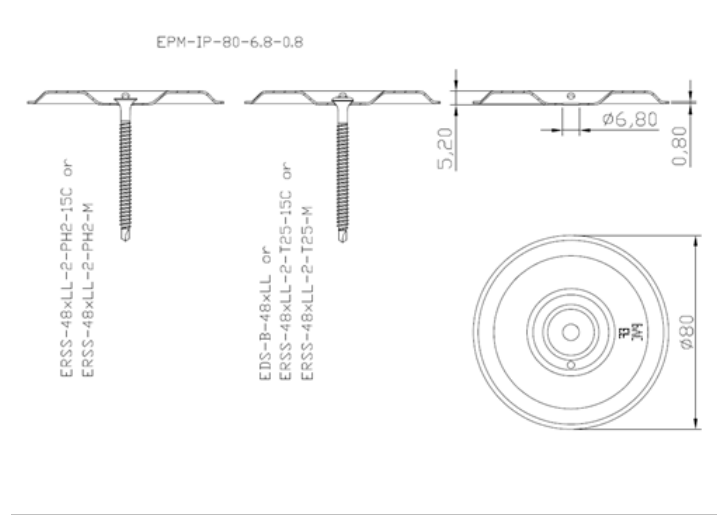
**Annex B.22**



**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)

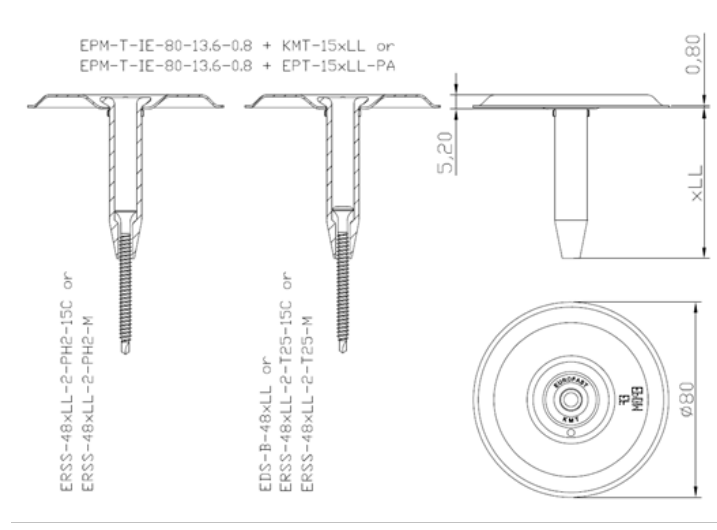
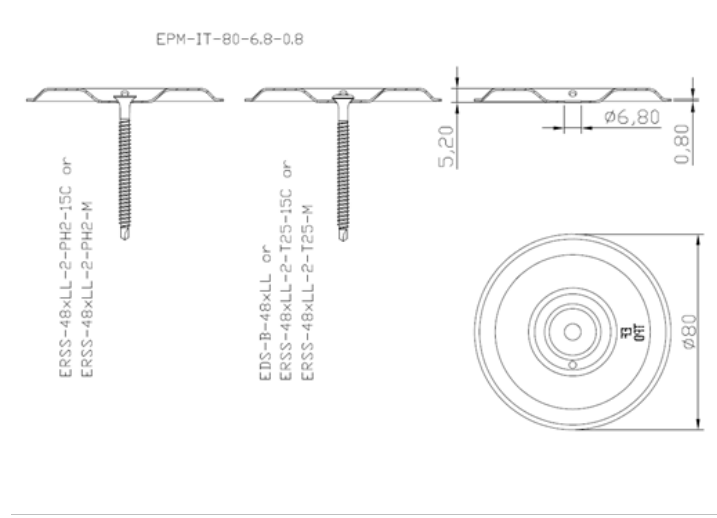
**Annex B.23**



**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)

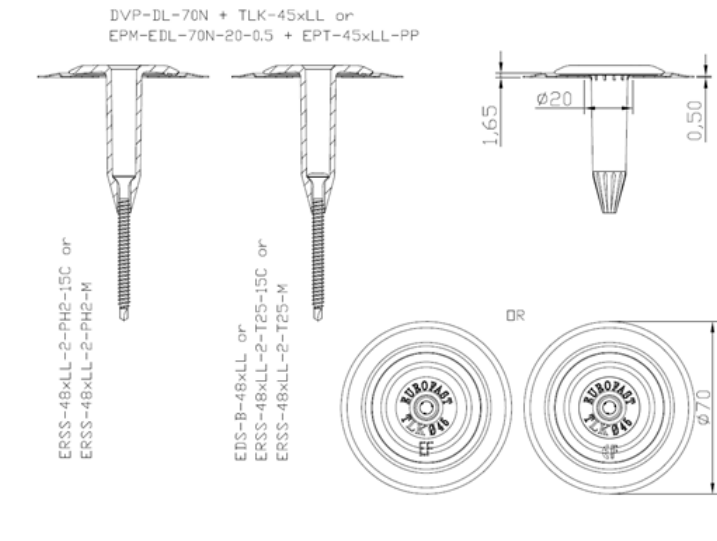
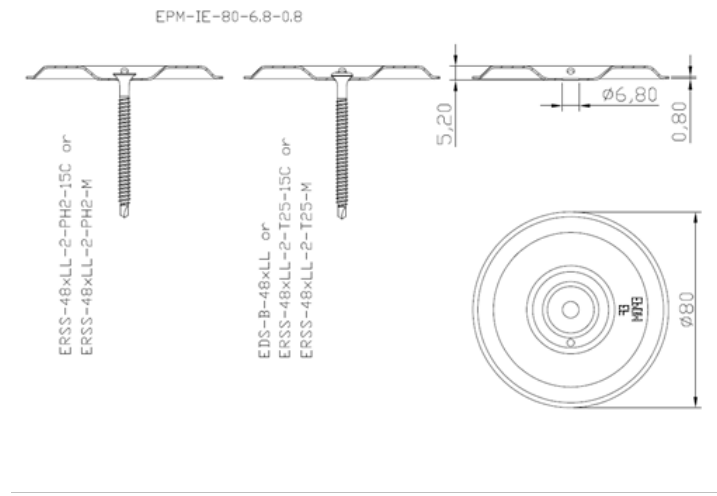
**Annex B.24**



**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)

**Annex B.25**

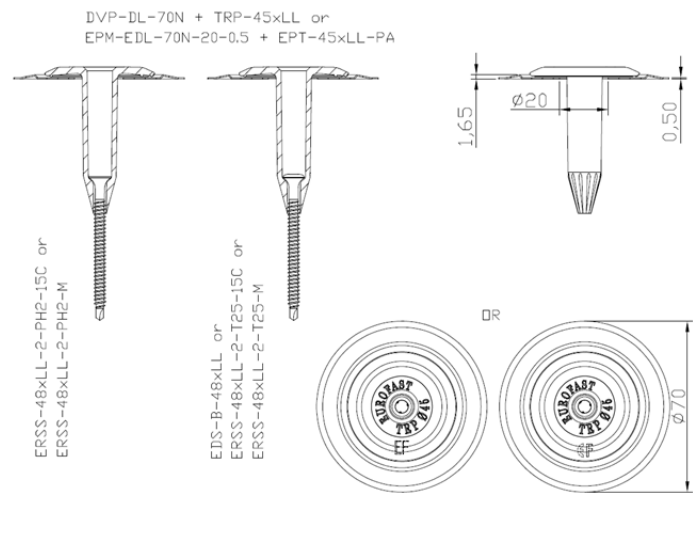


**Eurofast Flat Roof Fasteners**

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)

**Annex B.26**

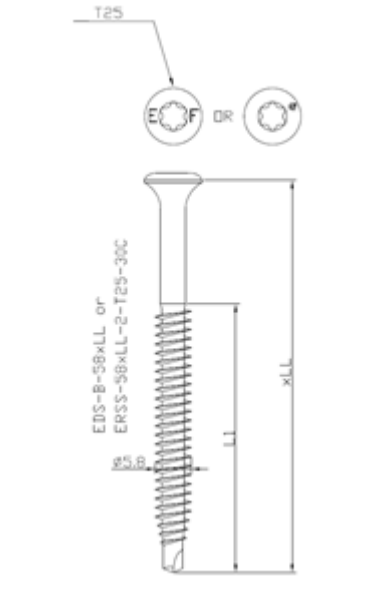




**Eurofast Flat Roof Fasteners**

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)

**Annex B.27**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figure 3 of UKAD 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 Figures 4 + 5 of UKAD 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)

### Annex C.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex C.2</b>
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

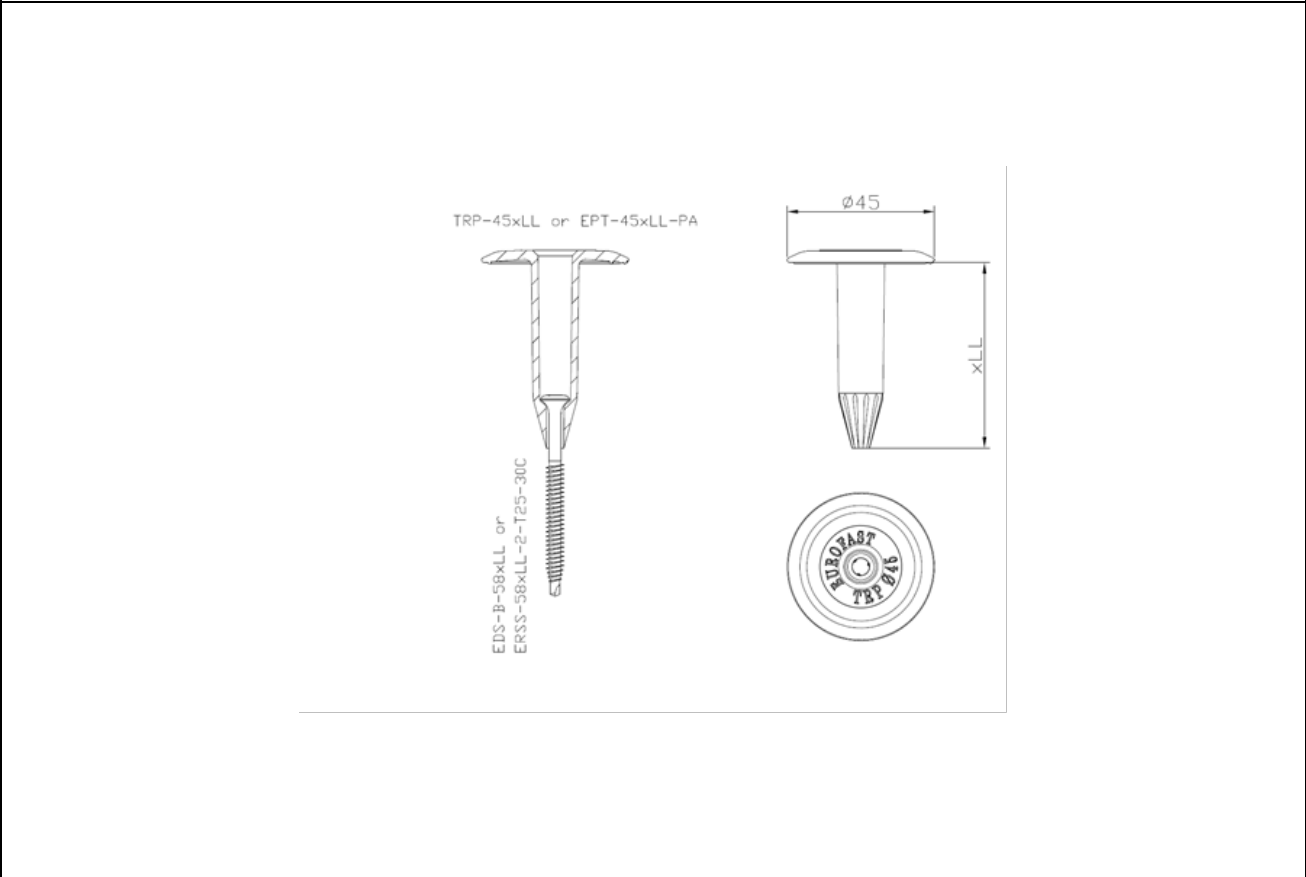
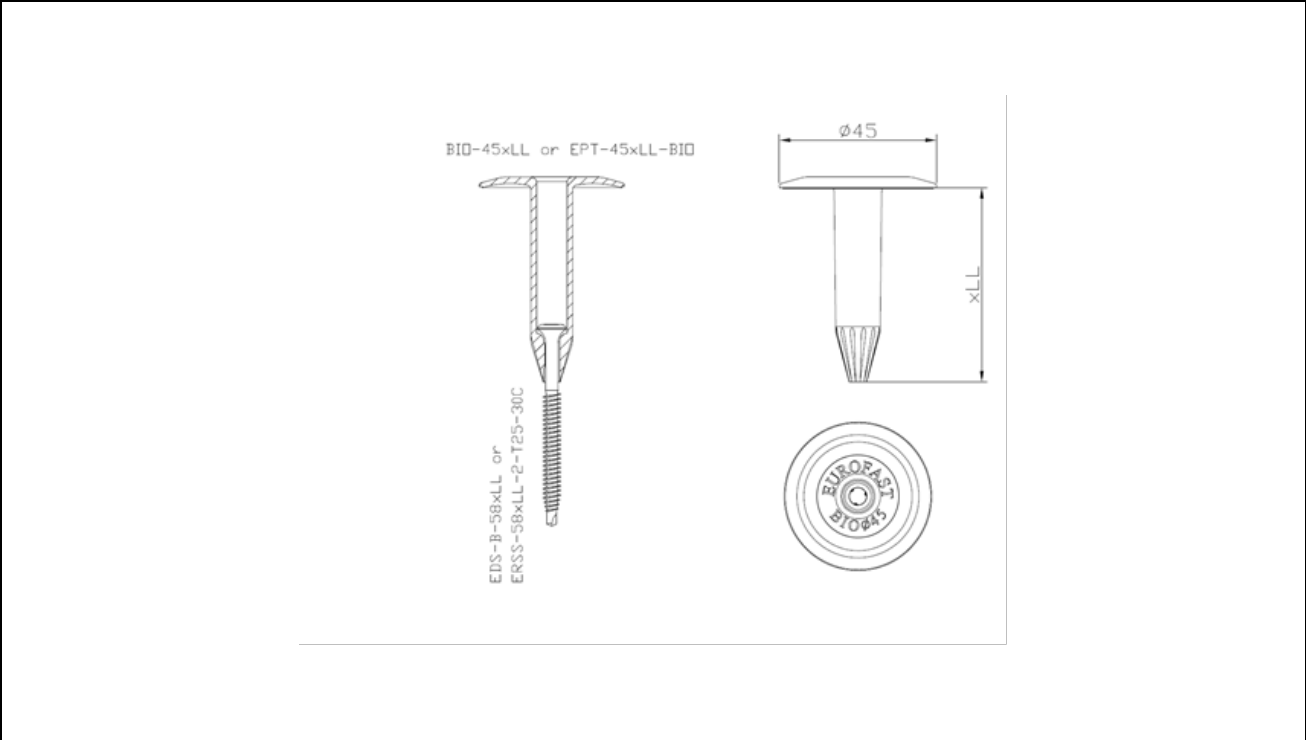
**Installation data:**

Max. drilling capacity in steel substrate:	2 x 1,25 mm
HUKAD type:	Raised Bugle HUKAD
Recess:	TX25
Fixing in steel substrate:	Minimum 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**

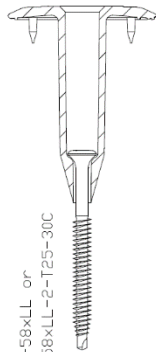
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.3**

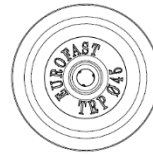
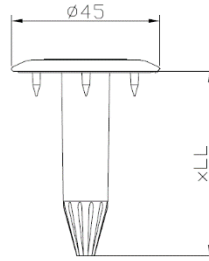


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex C.4</b>
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)	

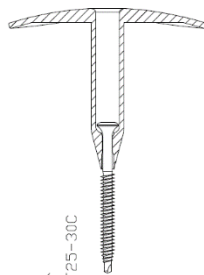
BTRP-45xLL or EPT-B-45xLL-PA



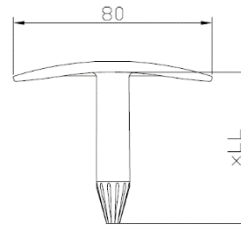
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



TWP-8040xLL or EPT-8040xLL-PA



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

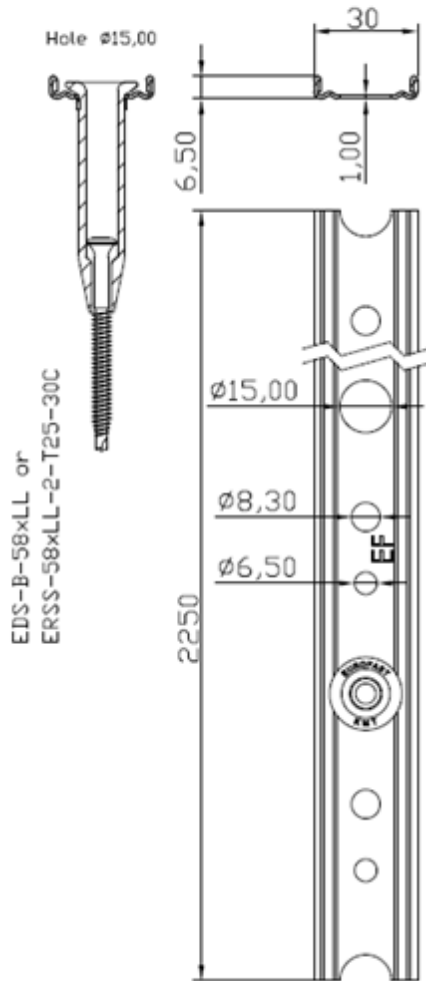


**Eurofast Flat Roof Fasteners**

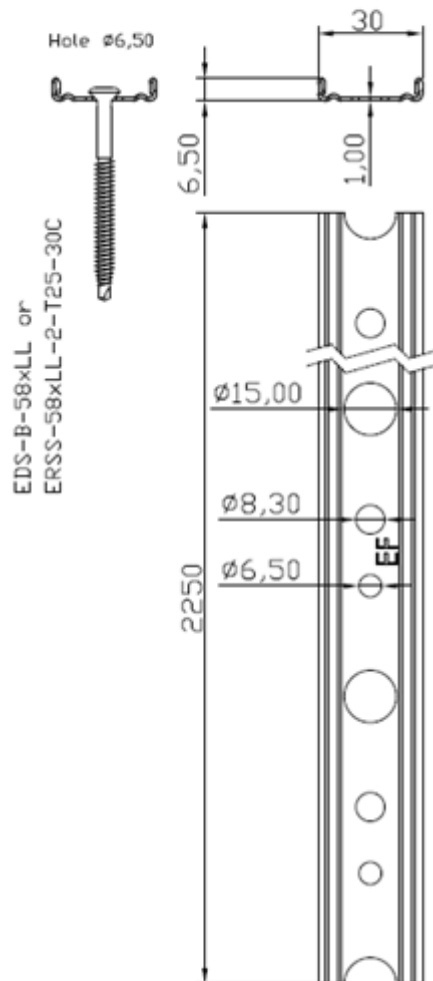
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.5**

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

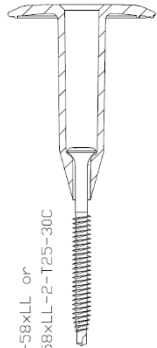


**Eurofast Flat Roof Fasteners**

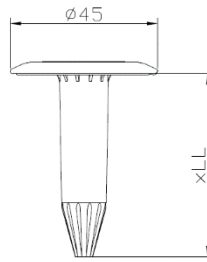
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.6**

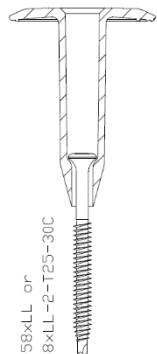
TLK-45xLL or EPT-45xLL-PP



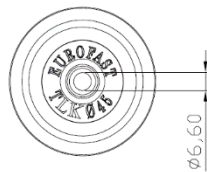
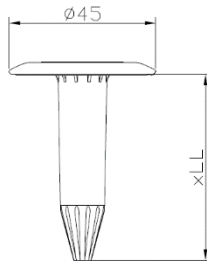
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



HTLK-45xLL or EPT-D-45xLL-PP



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



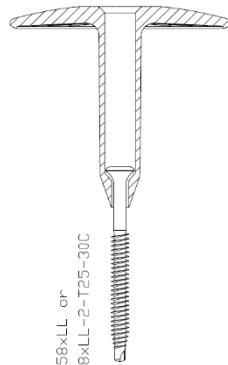
**Eurofast Flat Roof Fasteners**

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

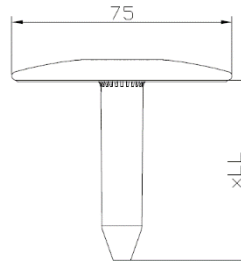
**Annex C.7**



TLK-75xLL or EPT-75xLL-PP



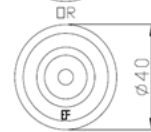
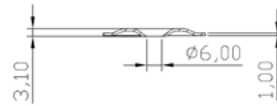
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

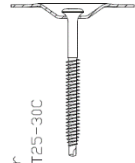


### Eurofast Flat Roof Fasteners

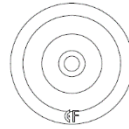
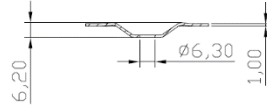
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

Annex C.8

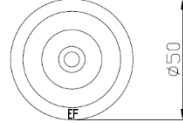
DVP-EF-5010D or EPM-50D-6.3-1.0



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



DR

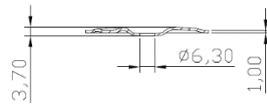


EF

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



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



DR



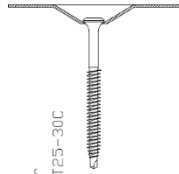
EF

**Eurofast Flat Roof Fasteners**

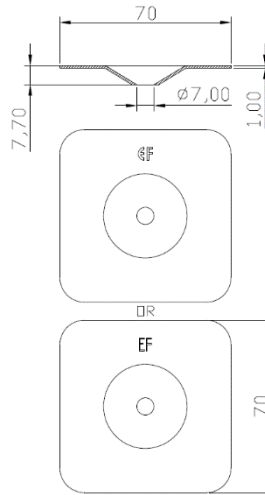
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.9**

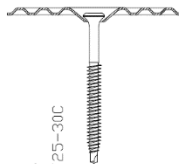
DVP-DF-7070D or EPM-7070D-7.0-1.0



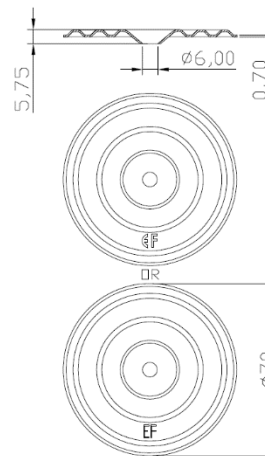
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

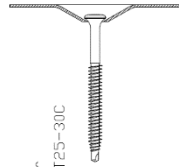


### Eurofast Flat Roof Fasteners

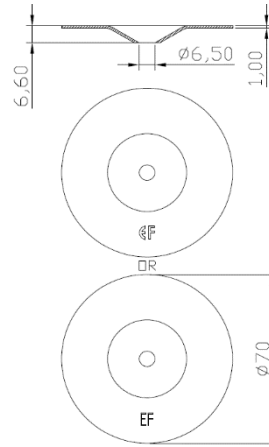
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

Annex C.10

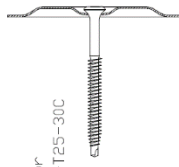
DVP-EF-7010D or EPM-70D-6.5-1.0



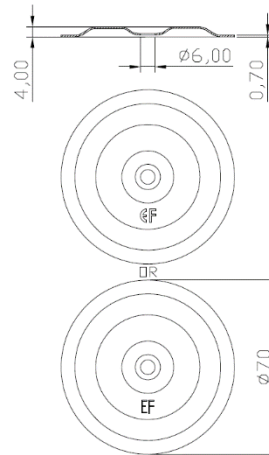
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

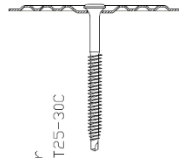


**Eurofast Flat Roof Fasteners**

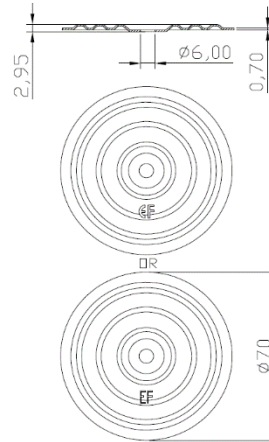
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.11**

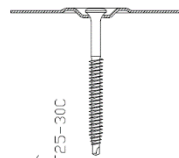
DVP-EF-7007N or EPM-70N-6.0-0.7



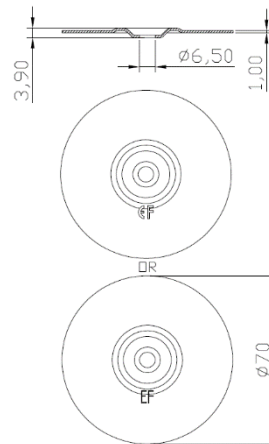
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

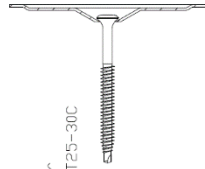


**Eurofast Flat Roof Fasteners**

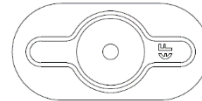
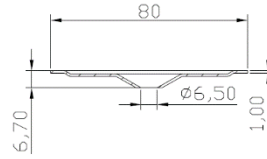
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.12**

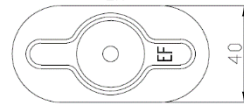
DVP-EF-8040D or EPM-8040D-6,5-1,0



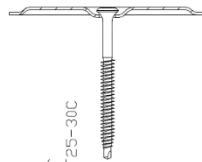
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



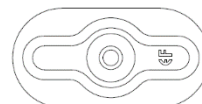
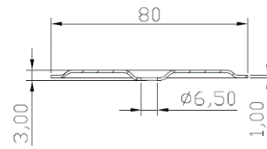
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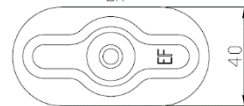
DVP-EF-8040N or EPM-8040N-6,5-1,0



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



OR

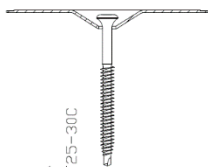


**Eurofast Flat Roof Fasteners**

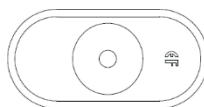
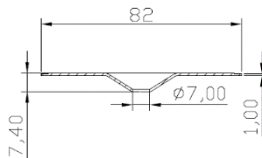
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.13**

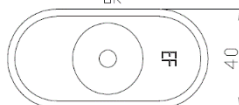
DVP-DF-8240D or EPM-8240D-7.00-1.0



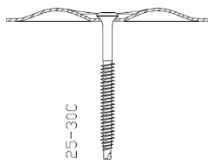
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



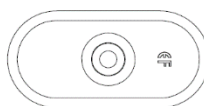
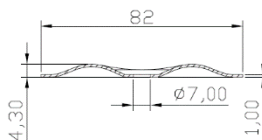
OR



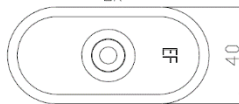
DVP-DF-8240H or EPM-8240H-7.0-1.0



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



OR

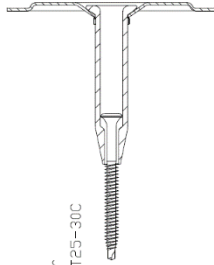


**Eurofast Flat Roof Fasteners**

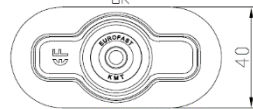
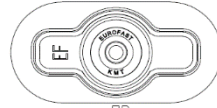
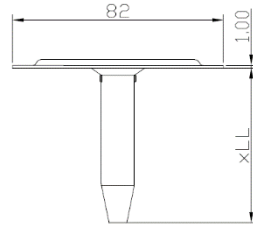
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.14**

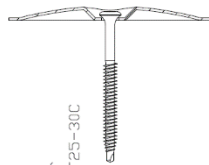
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



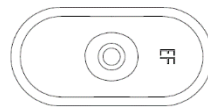
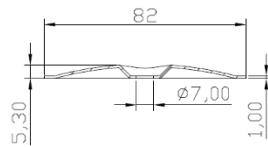
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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



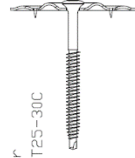
**Eurofast Flat Roof Fasteners**

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

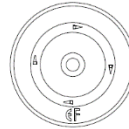
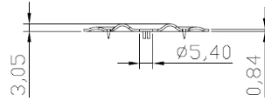
**Annex C.15**



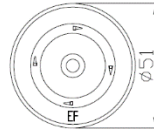
DVP-EFB-51NS or EPM-B-51N-5.4-0.84



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



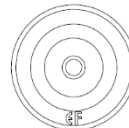
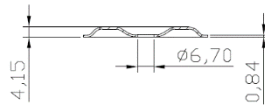
OR



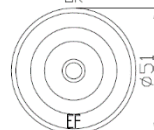
DVP-EF-51N or EPM-51N-6.7-0.84



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



OR

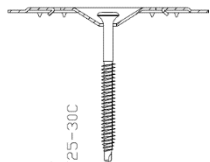


**Eurofast Flat Roof Fasteners**

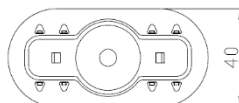
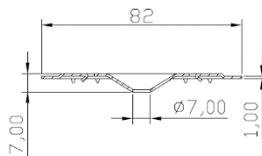
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.16**

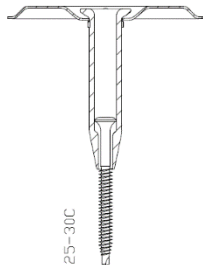
DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



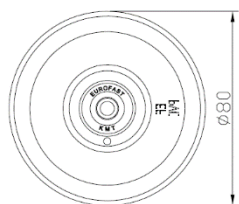
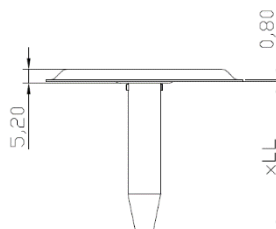
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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

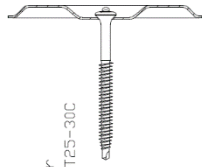


**Eurofast Flat Roof Fasteners**

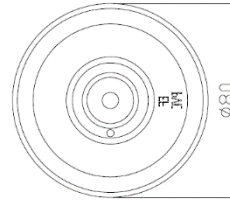
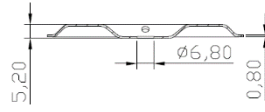
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.17**

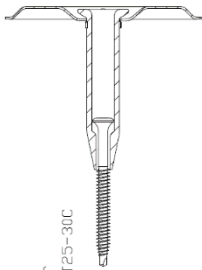
EPM-IP-80-6.8-0.8



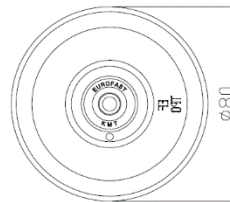
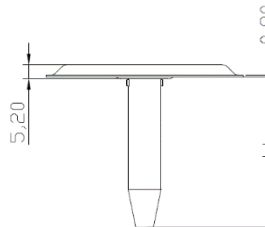
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

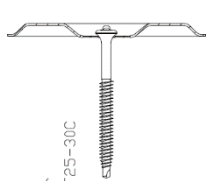


**Eurofast Flat Roof Fasteners**

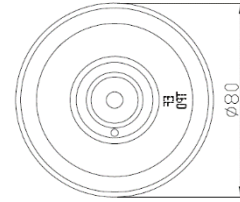
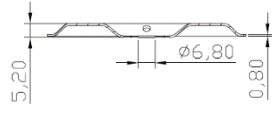
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.18**

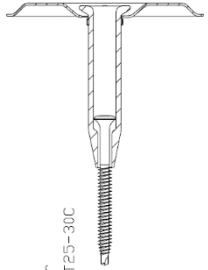
EPM-IT-80-6.8-0.8



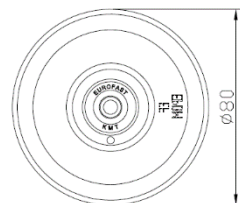
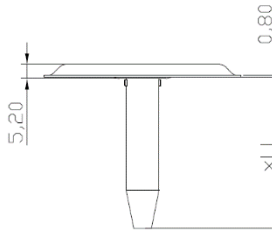
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

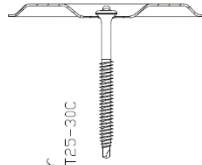


**Eurofast Flat Roof Fasteners**

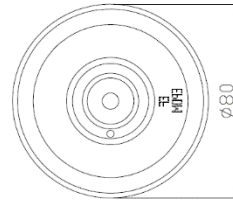
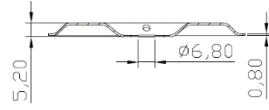
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.19**

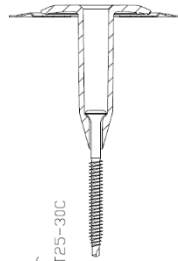
EPM-IE-80-6,8-0.8



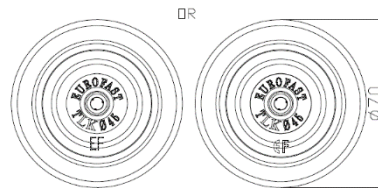
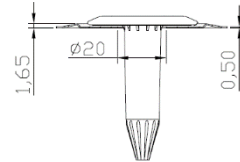
EDS-B-58xLL or  
ERSS-58xLL-2-T25-30C



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



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

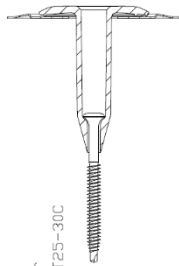


**Eurofast Flat Roof Fasteners**

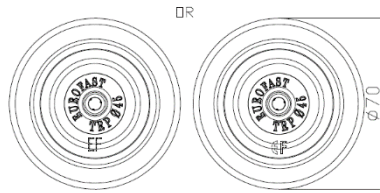
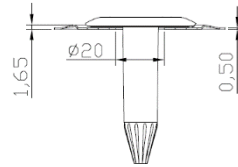
EDS-B-58xLL (ERSS-58xLL-2-T25-30C)

**Annex C.20**

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



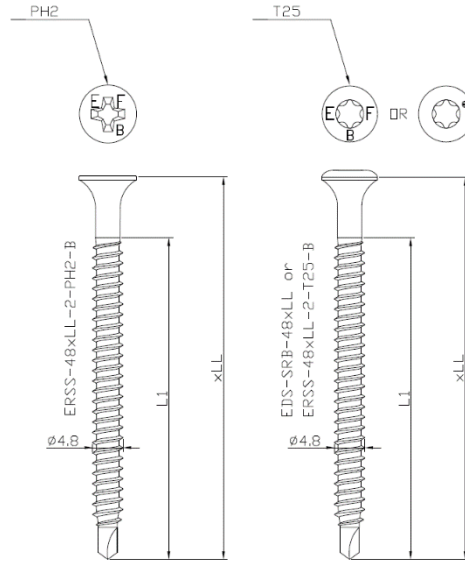
EDS-B-58xLL or  
 ERSS-58xLL-2-T25-30C



**Eurofast Flat Roof Fasteners**

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

**Annex C.21**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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-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 Figure 3 of UKAD 030351-00-0402)							
t [mm]	OSB/3			Chipboard	Plywood		Timber C24
	18	21	25	19	18	21	24
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 Figures 4 and 5 of UKAD 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)

**Annex D.1**

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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)

### Annex D.2



**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:**

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
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

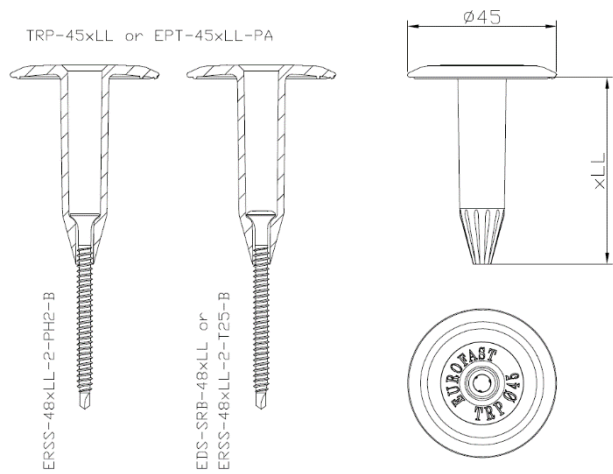
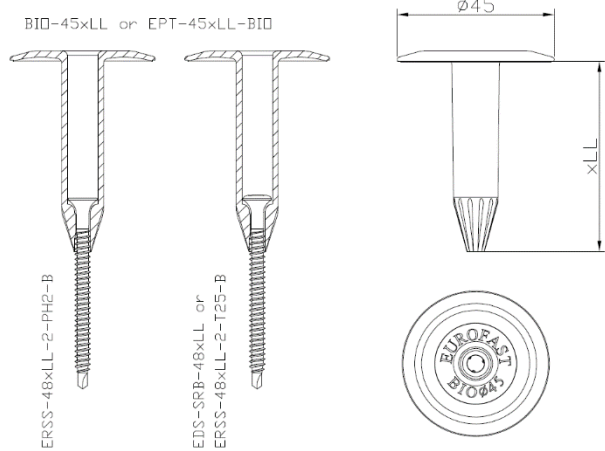
**Installation data:**

Max. drilling capacity in steel substrate:	2x1,25 mm
HUKAD type:	Bugle HUKAD / Raised Bugle HUKAD
Recess:	PH2 / TX25
Fixing in steel substrate:	Minimum 30 mm of the screw fixed through the steel sheet
Fixing in aluminium substrate:	Minimum 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)

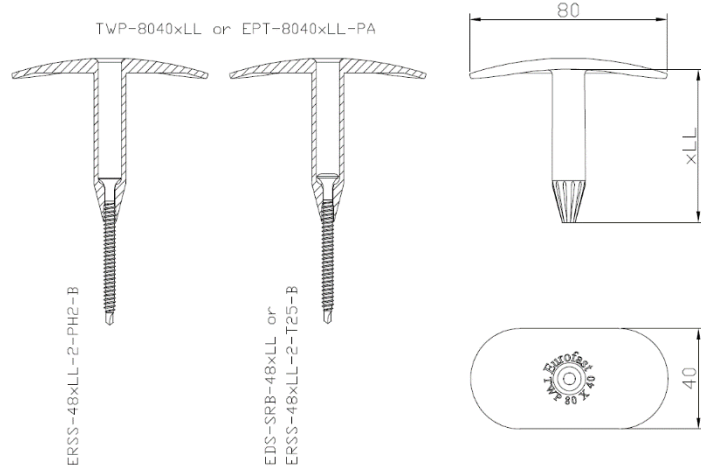
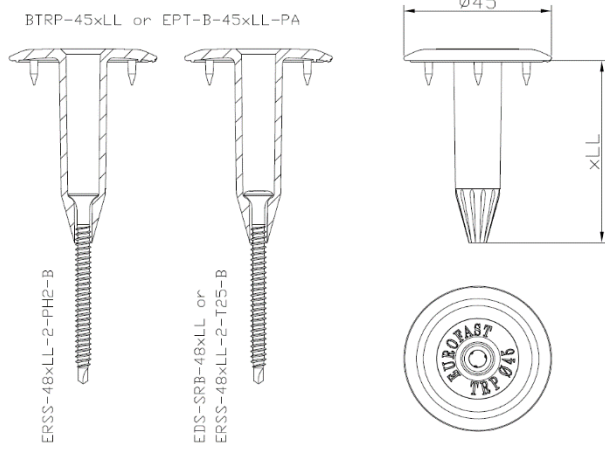
**Annex D.3**



**Eurofast Flat Roof Fasteners**

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

**Annex D.4**

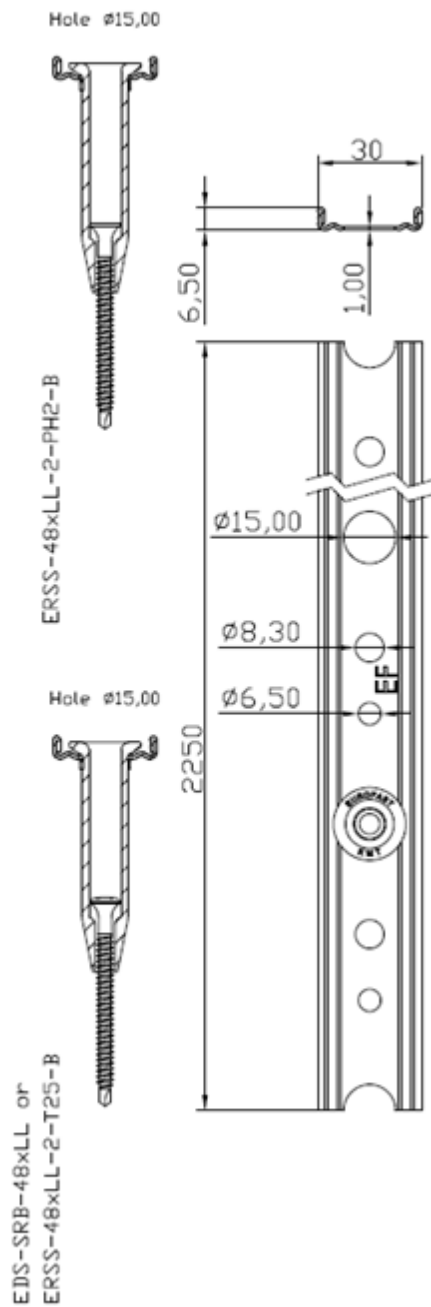


**Eurofast Flat Roof Fasteners**

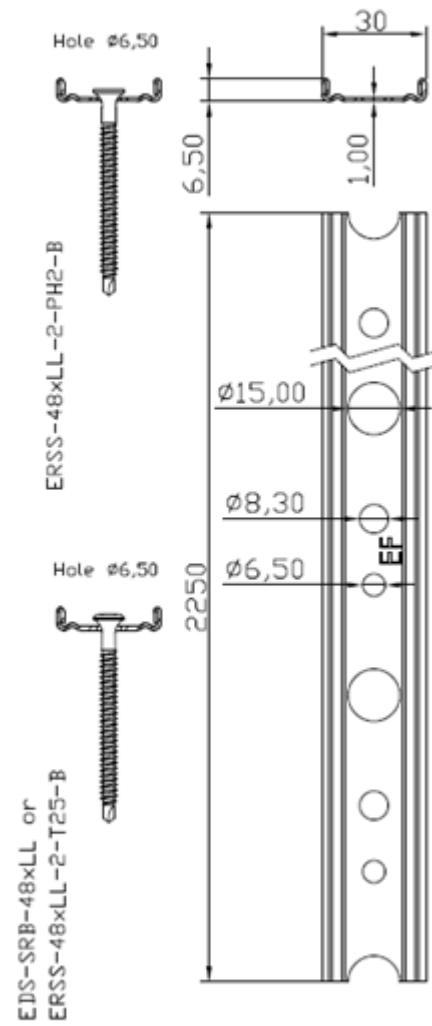
**EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)  
(ERSS-48xLL-2-PH2-B)**

**Annex D.5**

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

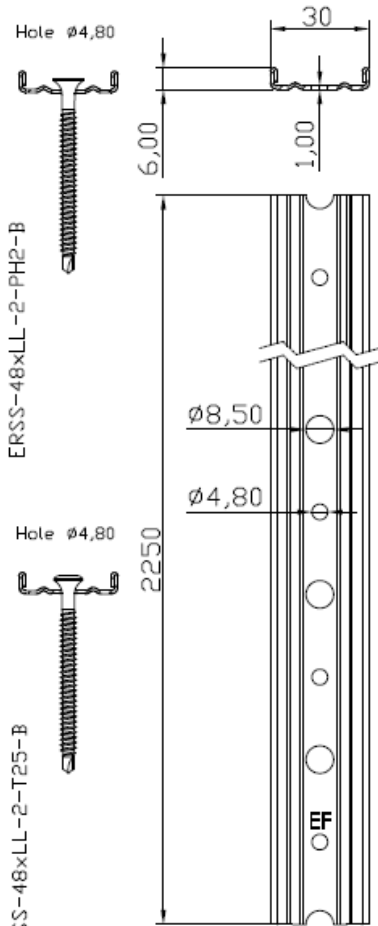


**Eurofast Flat Roof Fasteners**

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

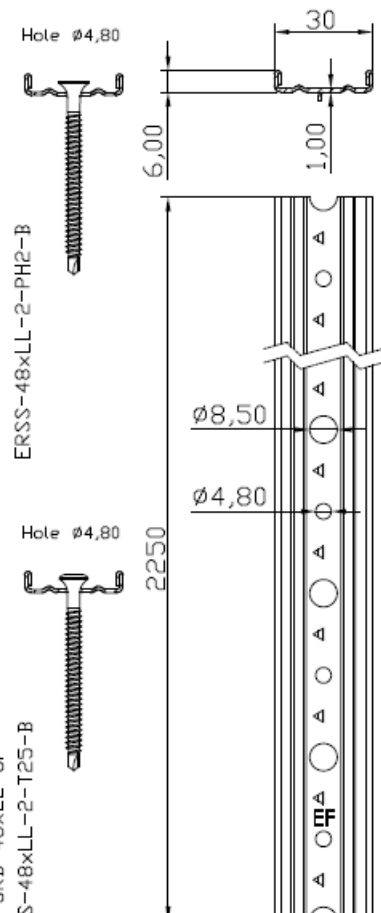
**Annex D.6**

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



EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B

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

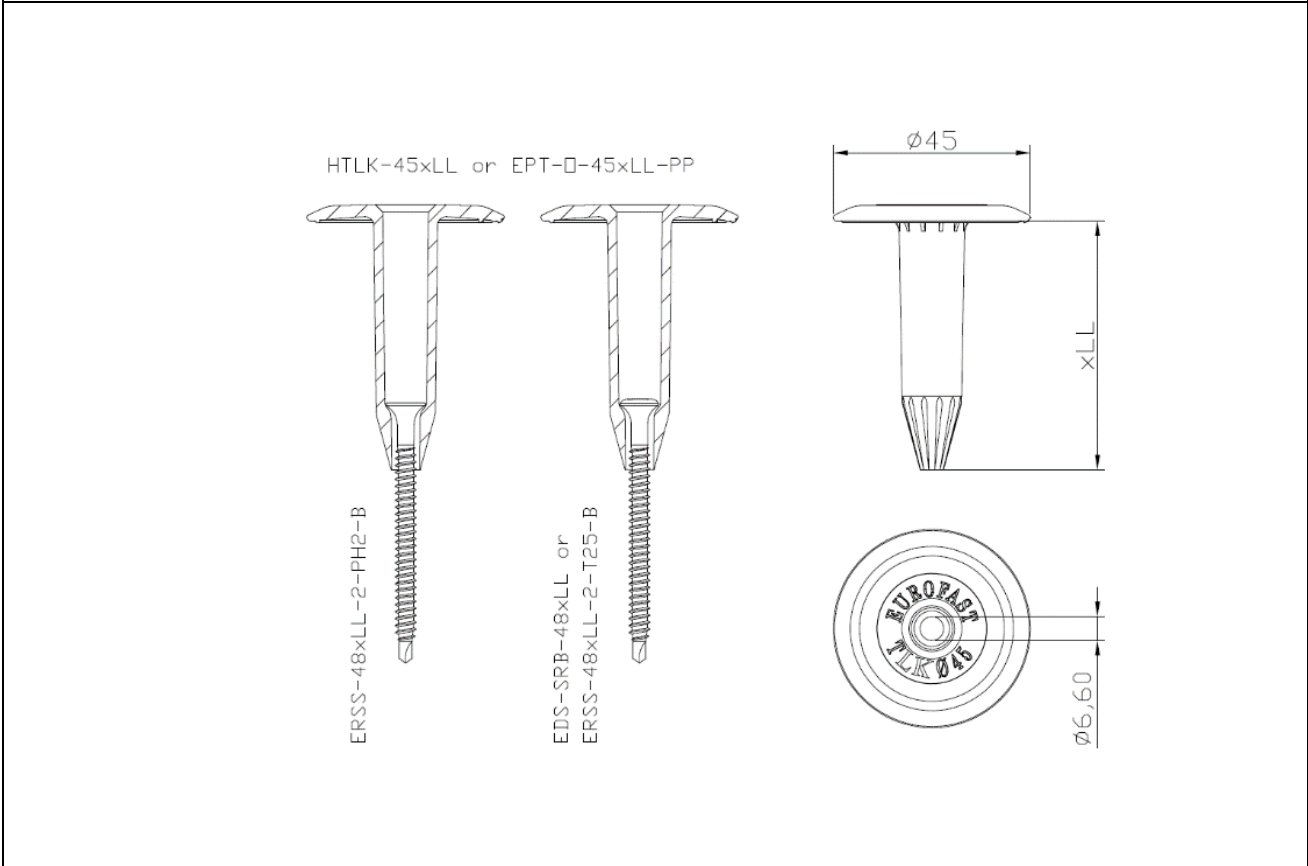
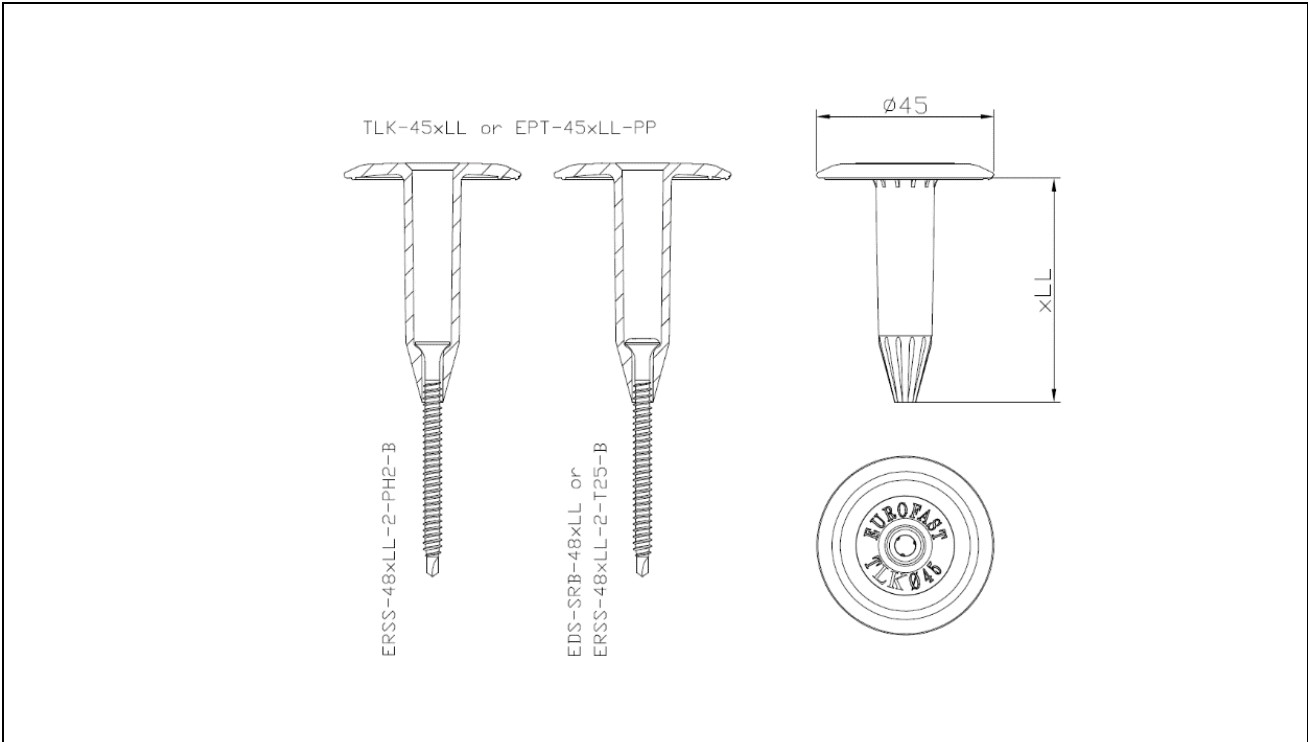


EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B

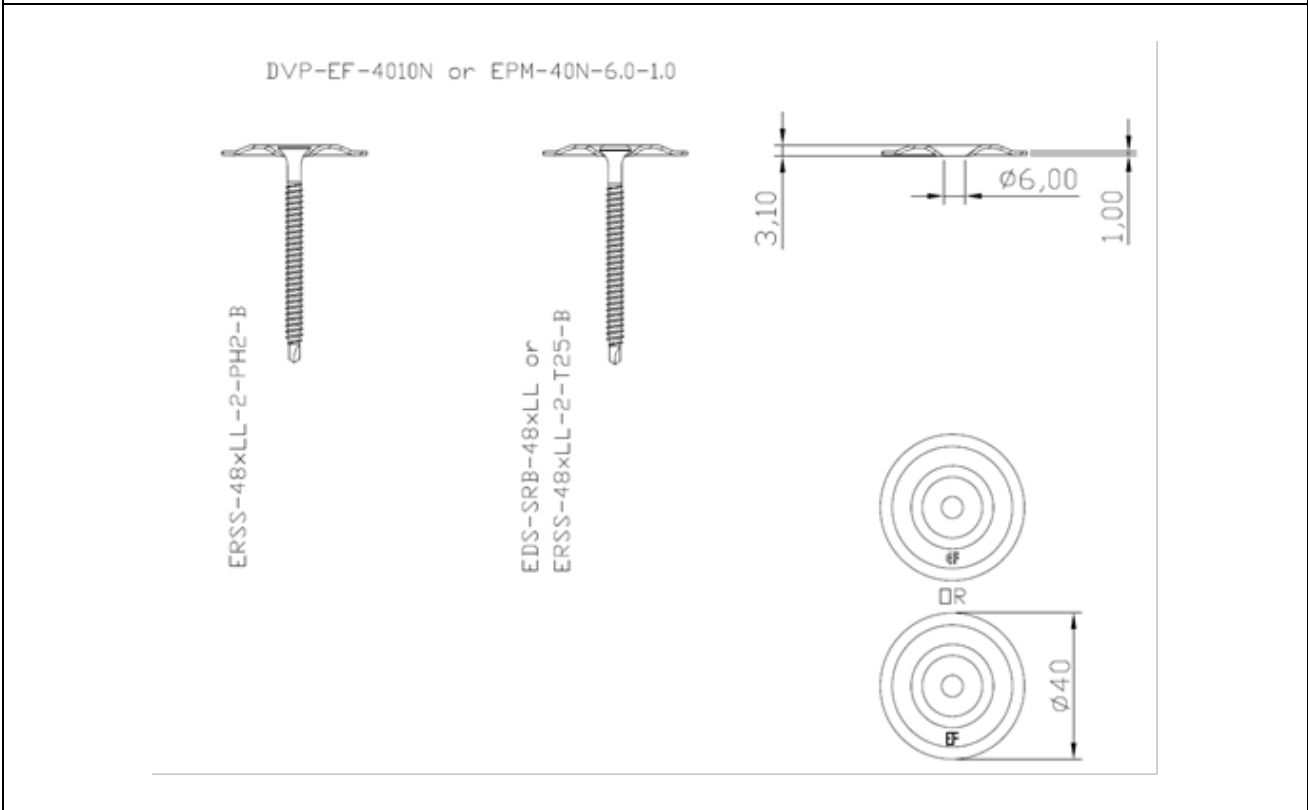
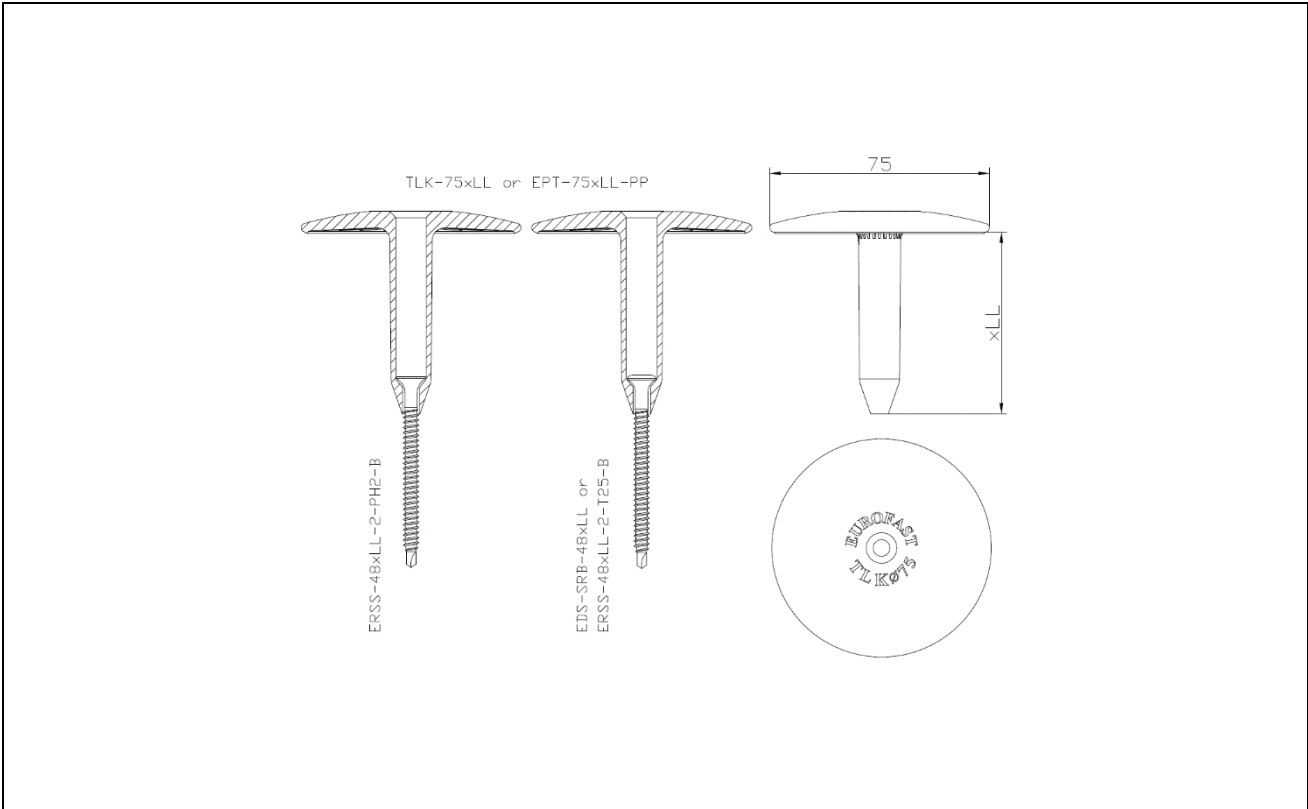
**Eurofast Flat Roof Fasteners**

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

**Annex D.7**

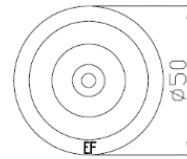
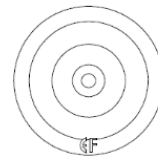
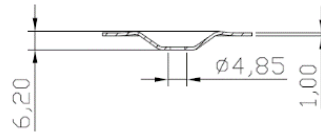
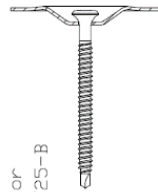
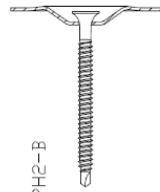


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.8</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

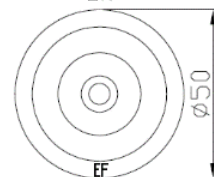
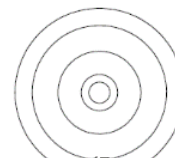
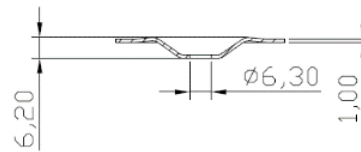
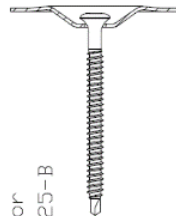
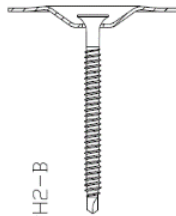


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.9</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

DVP-EF-5010DFR or EPM-50D-4,85-1.0



DVP-EF-5010D or EPM-50D-6,3-1.0

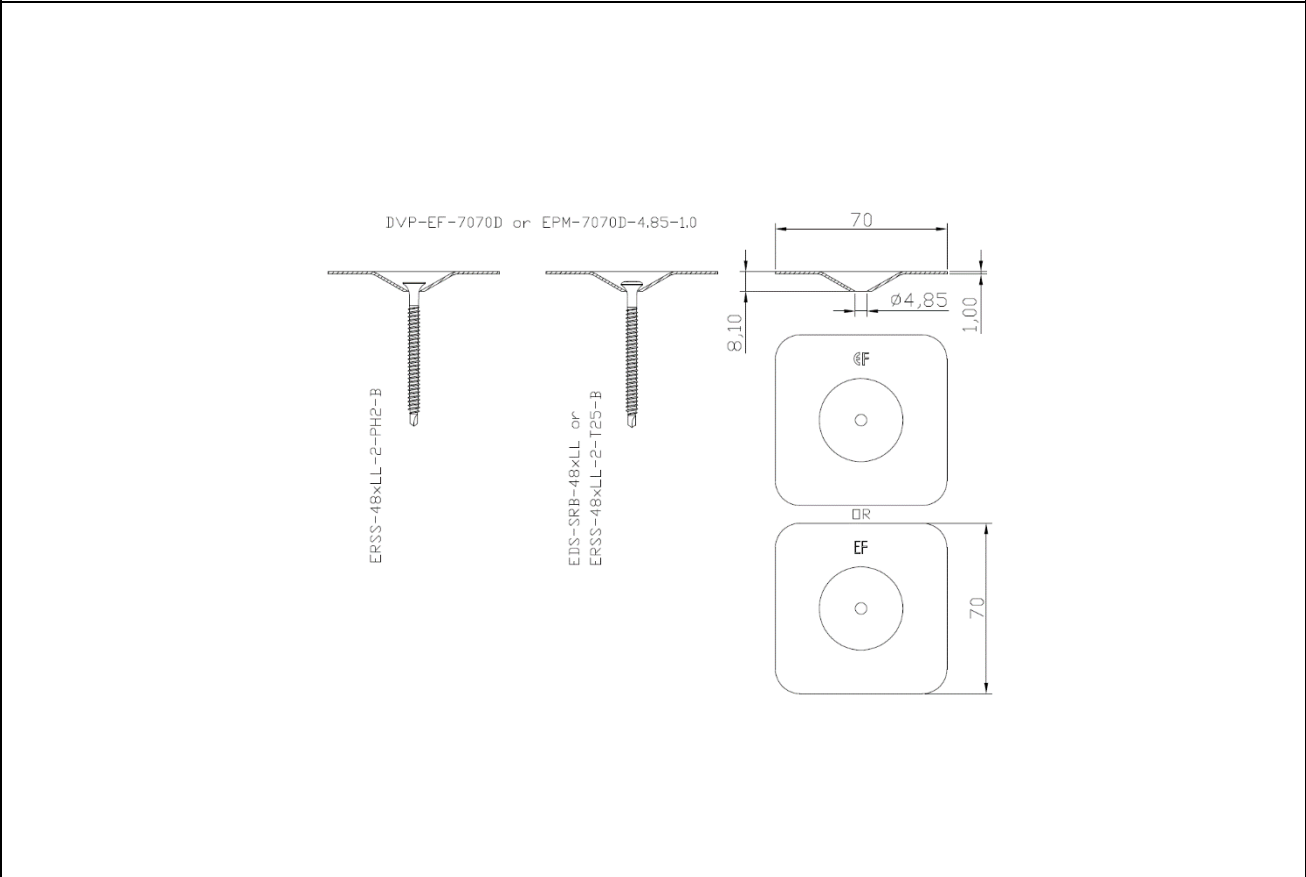
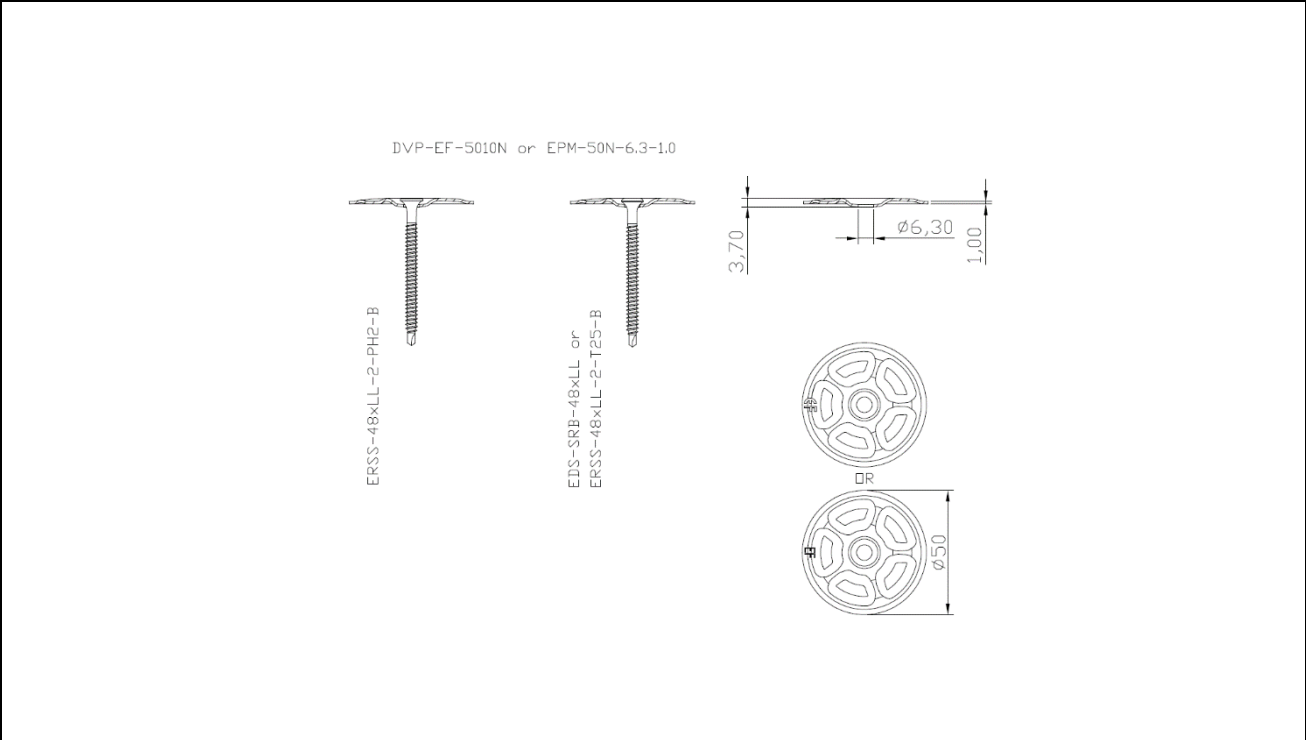


**Eurofast Flat Roof Fasteners**

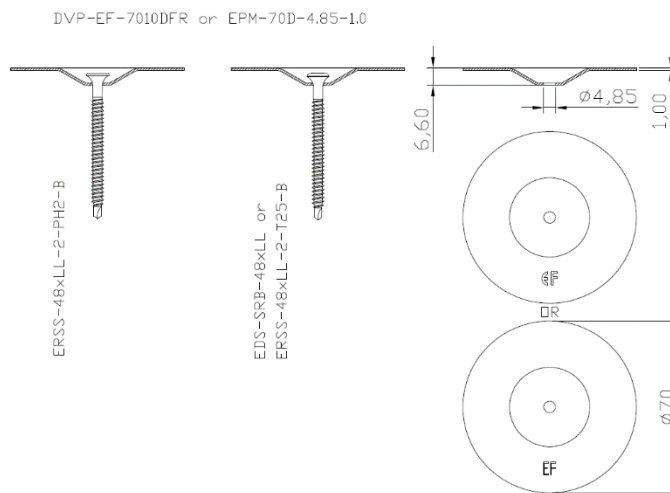
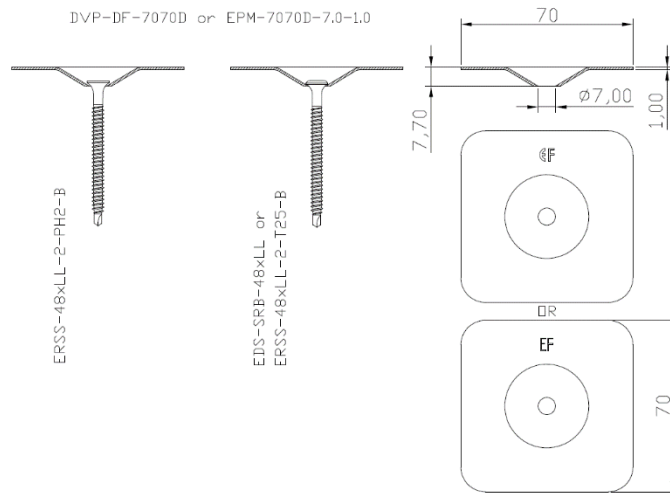
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)  
(ERSS-48xLL-2-PH2-B)

**Annex D.10**





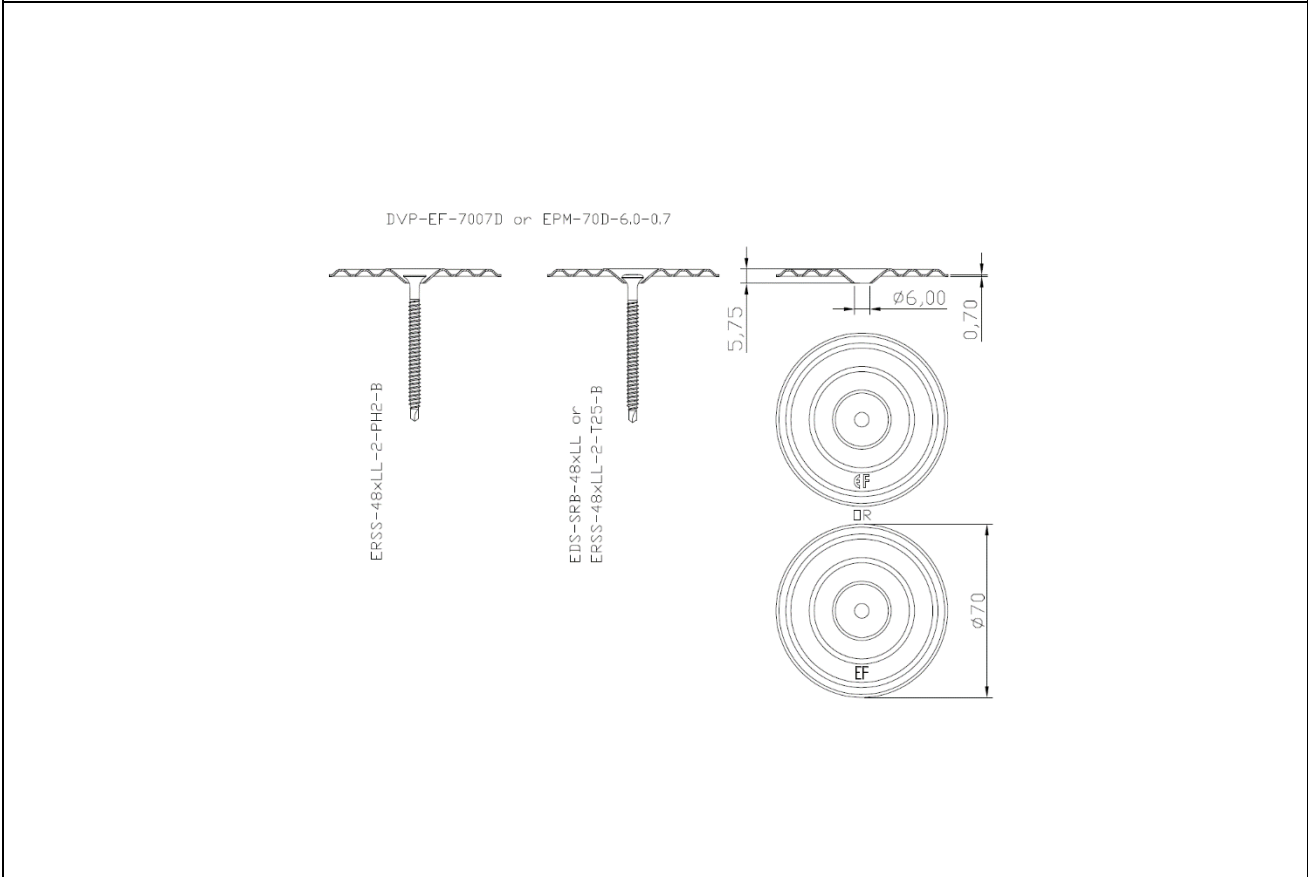
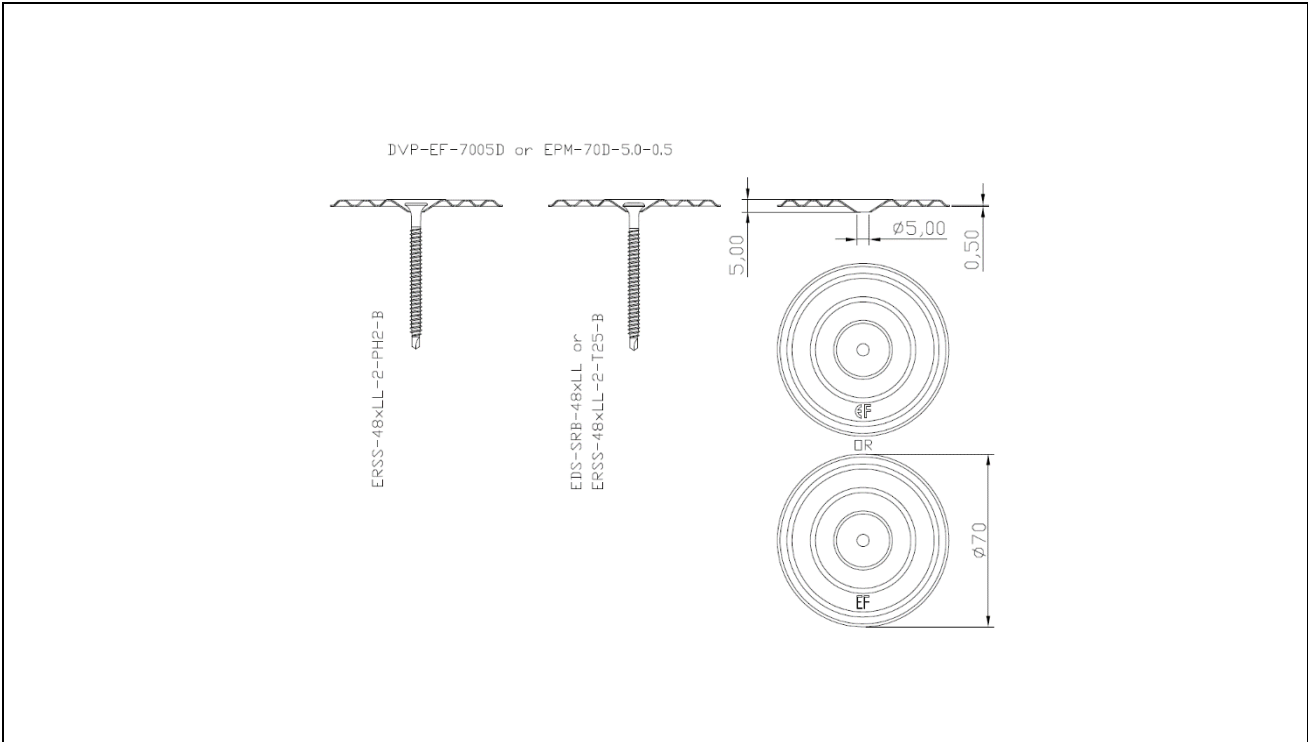
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.11</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



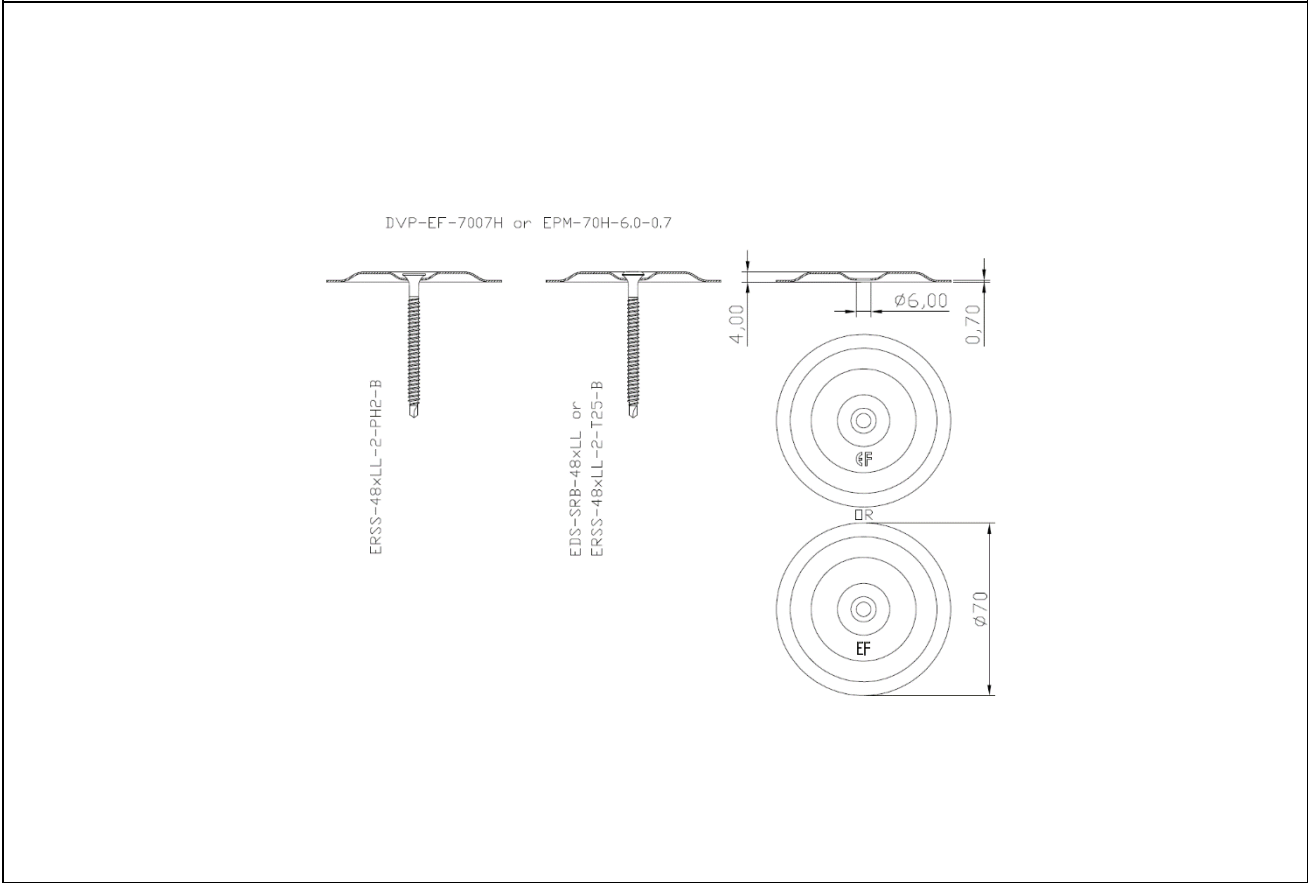
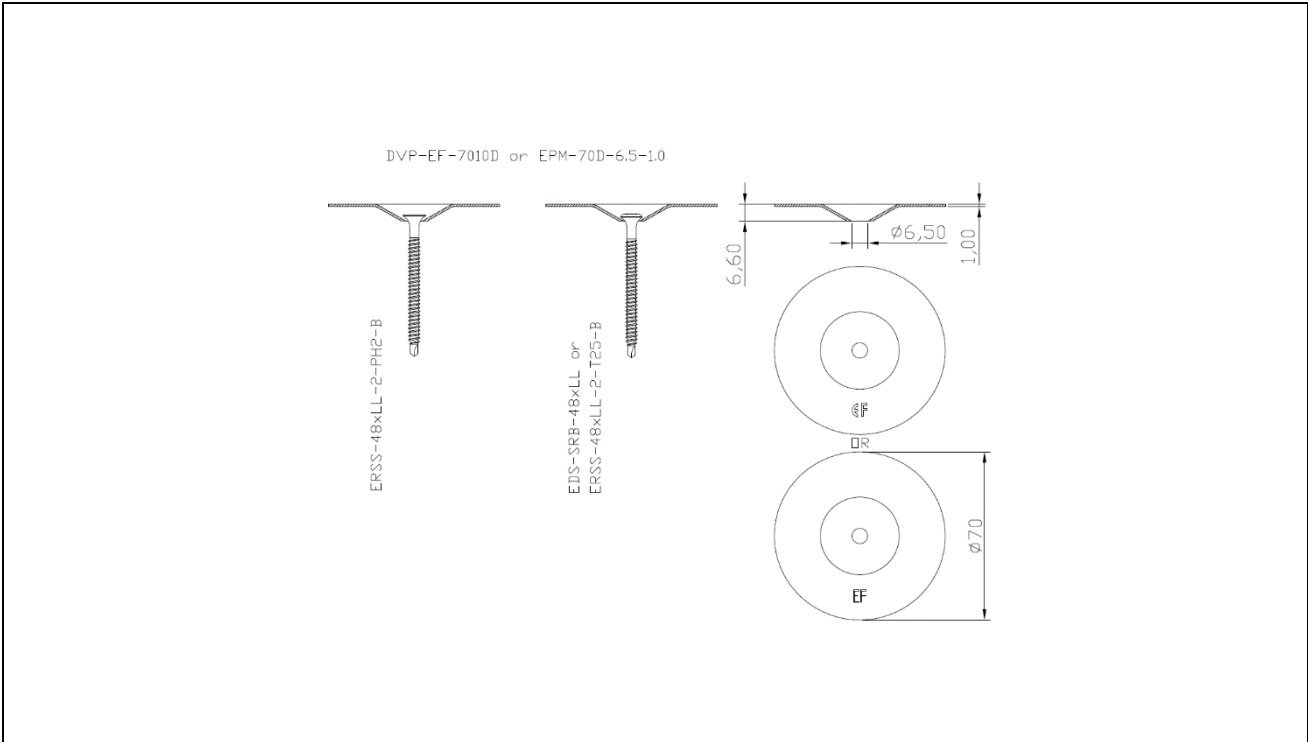
**Eurofast Flat Roof Fasteners**

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

**Annex D.12**

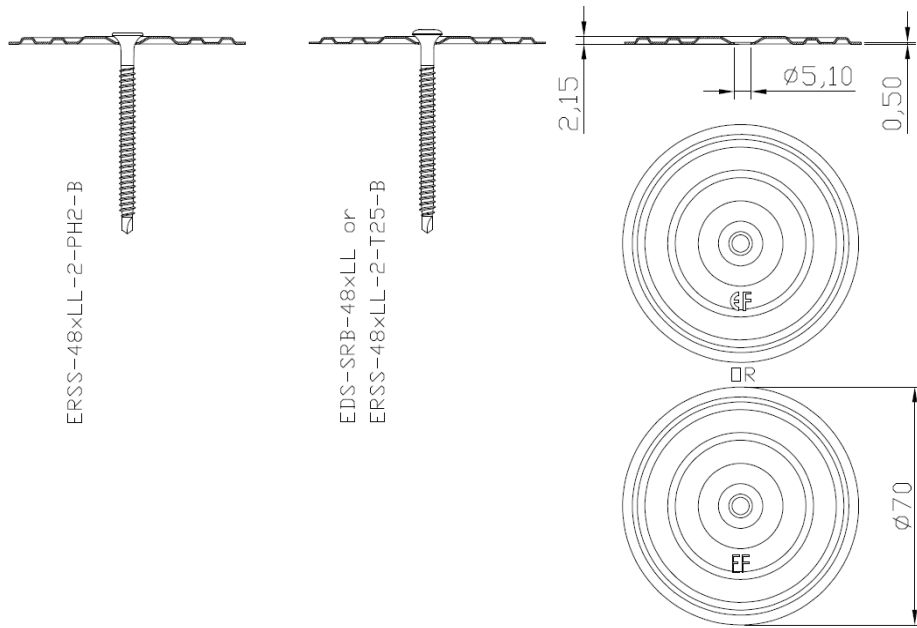


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.13</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.14</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

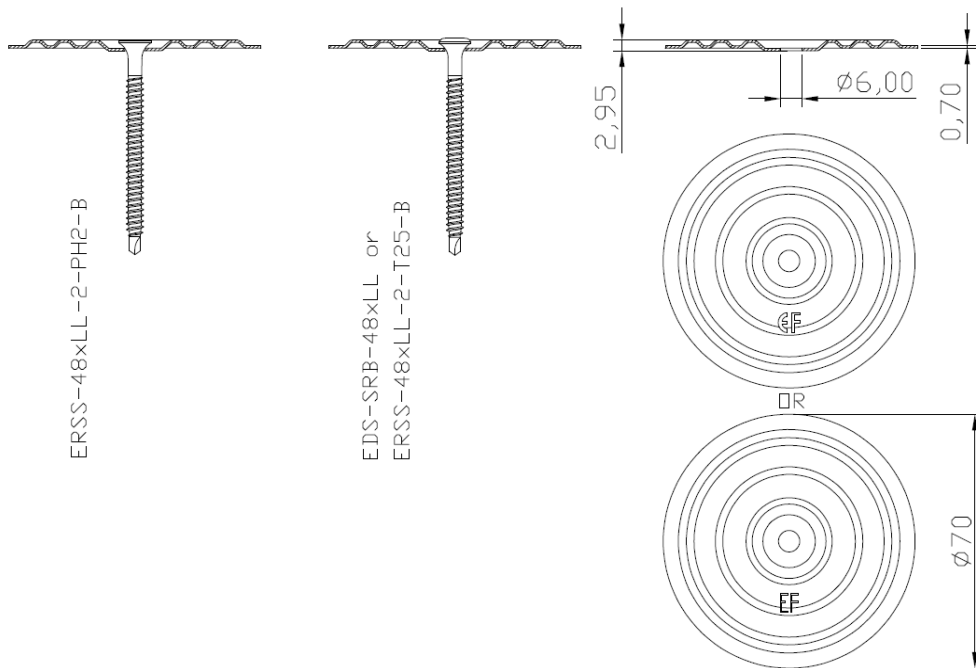
DVP-EF-7005N or EPM-70N-5.1-0.5



ERSS-48xLL-2-PH2-B

EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B

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



ERSS-48xLL-2-PH2-B

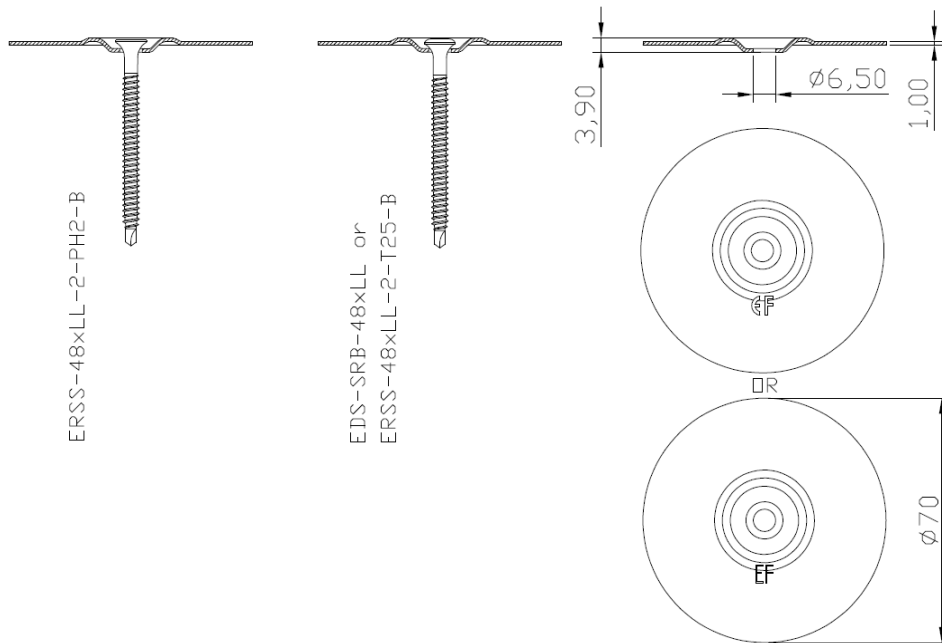
EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B

**Eurofast Flat Roof Fasteners**

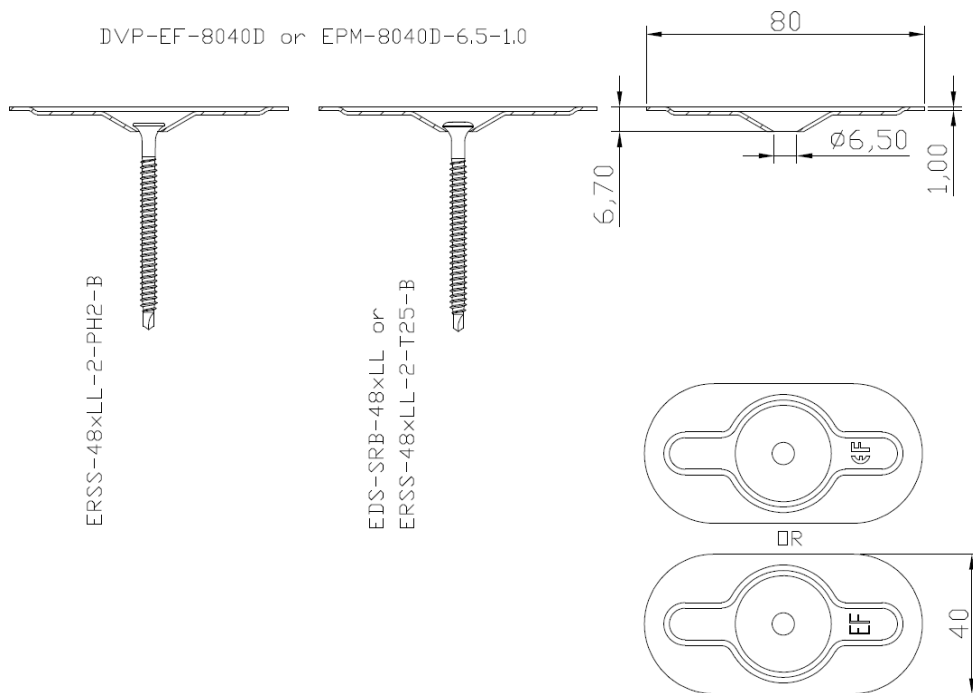
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)  
(ERSS-48xLL-2-PH2-B)

**Annex D.15**

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



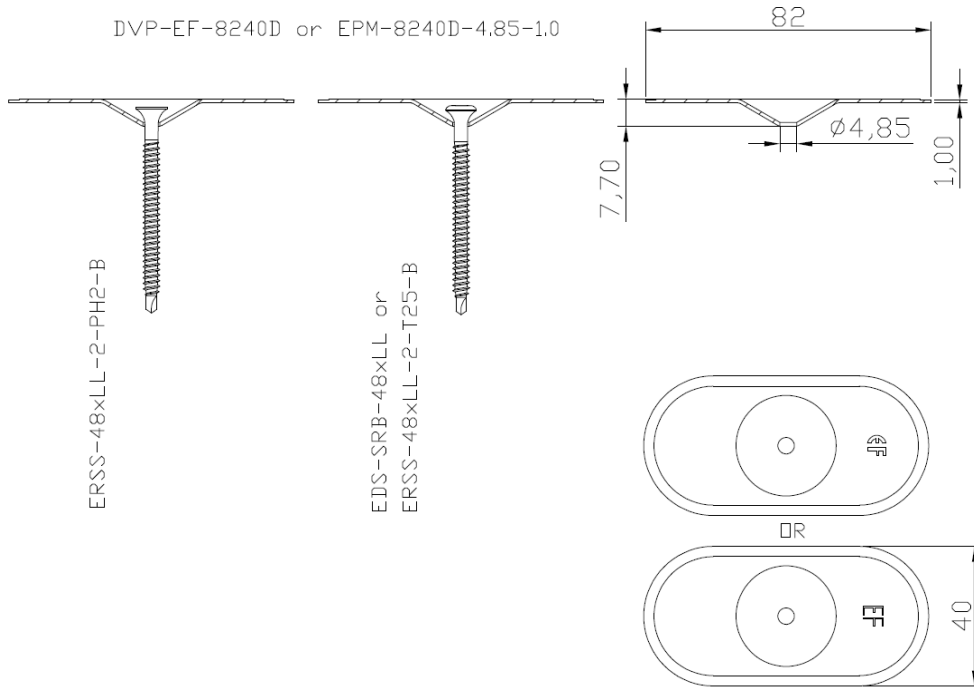
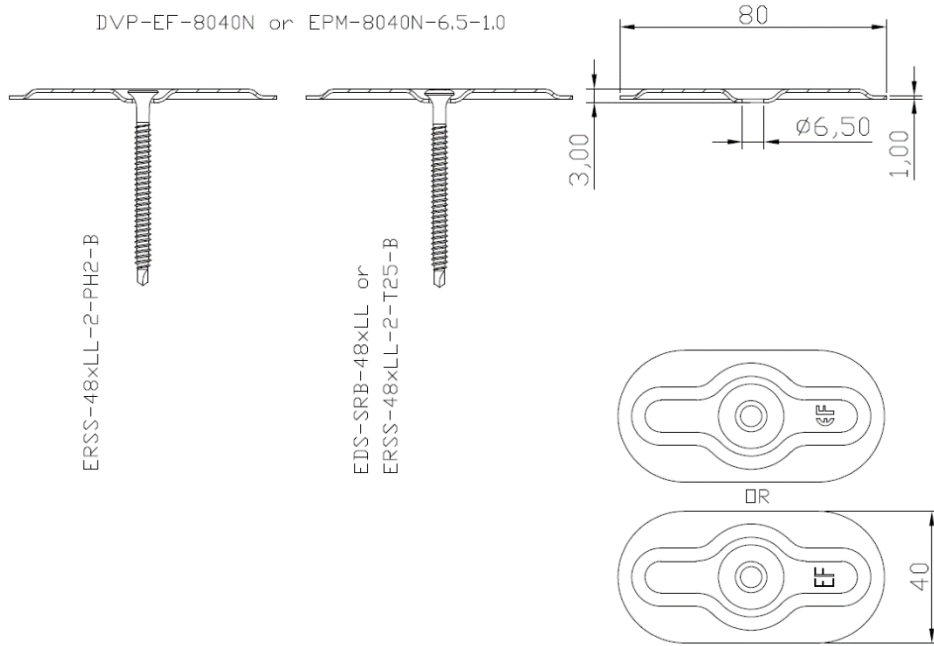
DVP-EF-8040D or EPM-8040D-6.5-1.0



**Eurofast Flat Roof Fasteners**

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

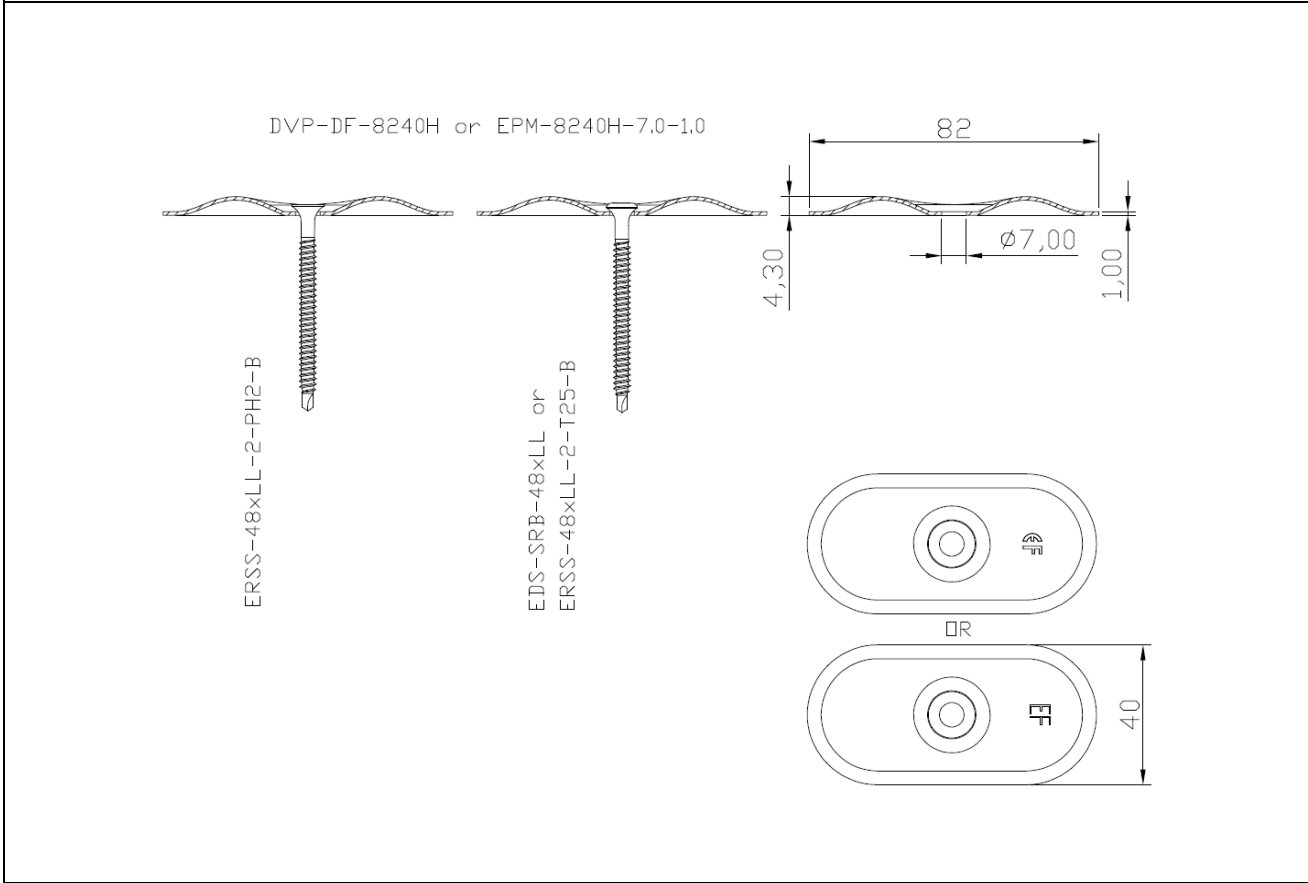
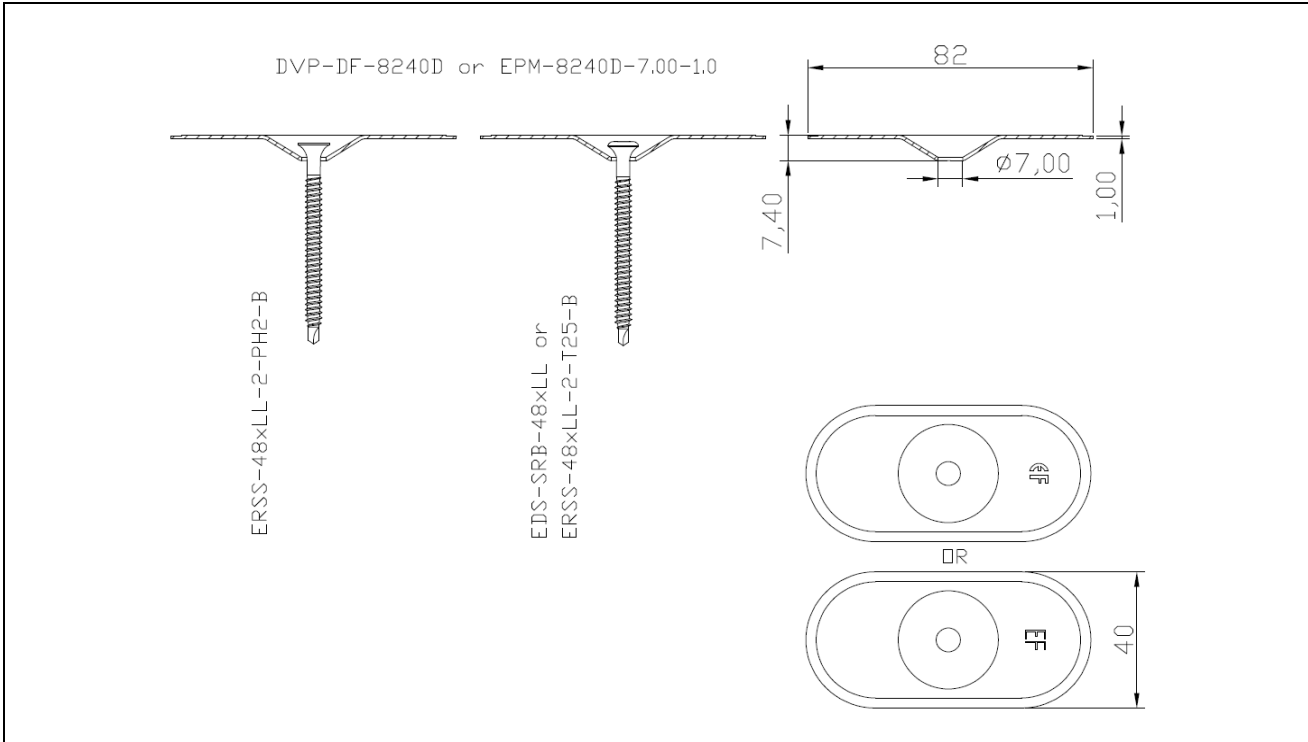
**Annex D.16**



**Eurofast Flat Roof Fasteners**

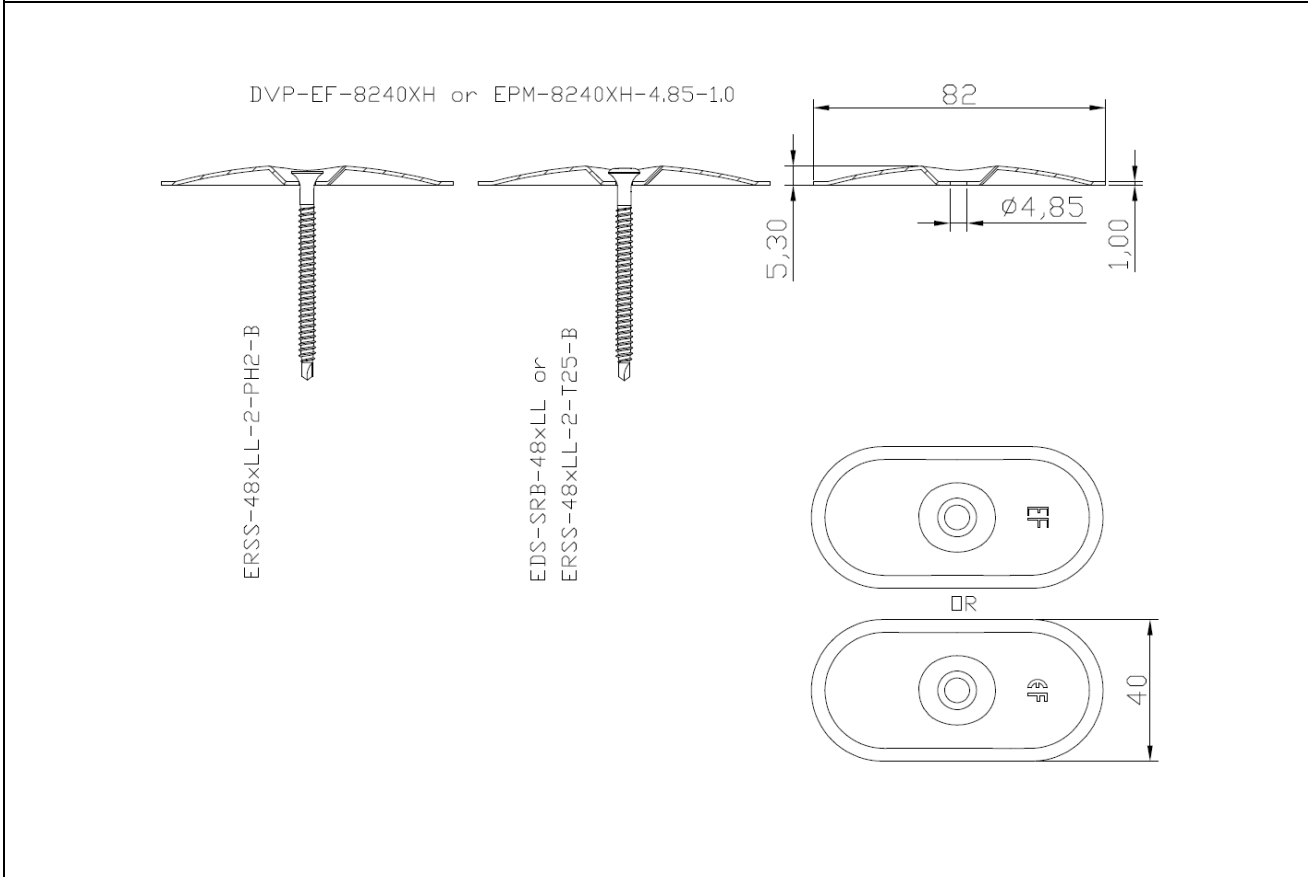
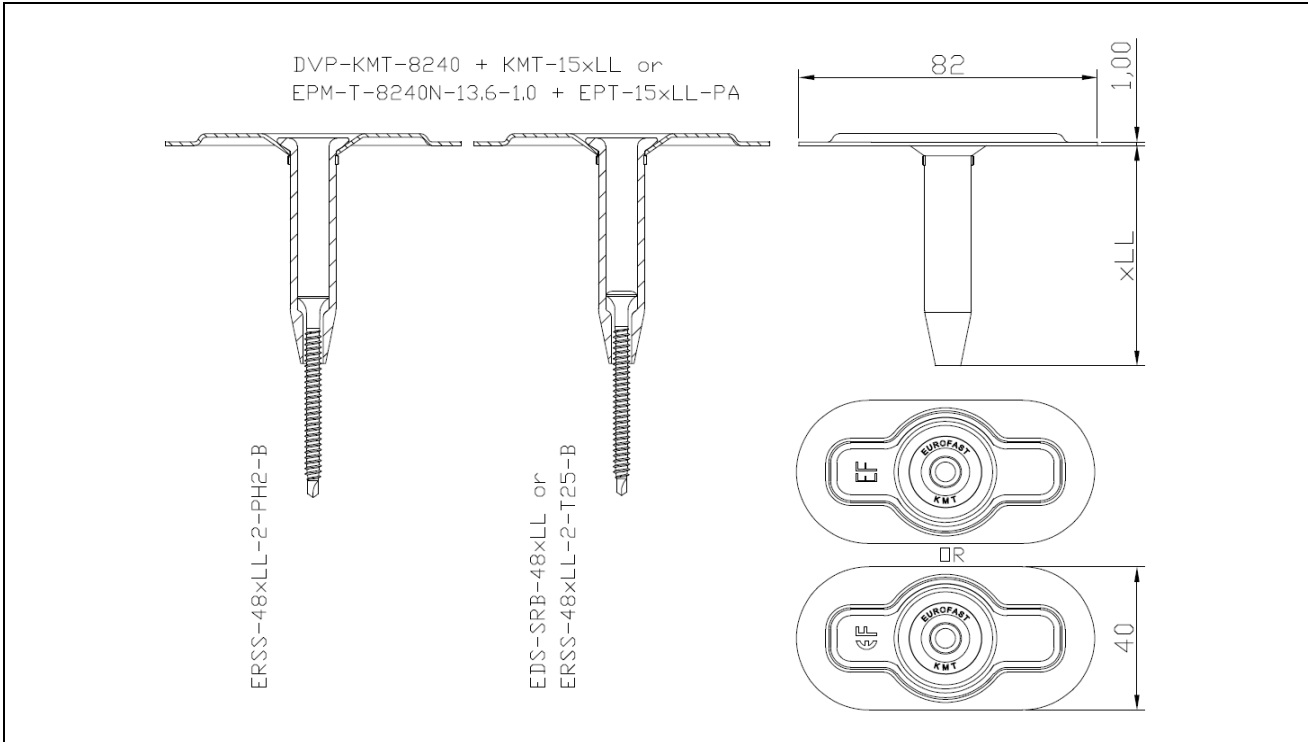
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)  
(ERSS-48xLL-2-PH2-B)

**Annex D.17**

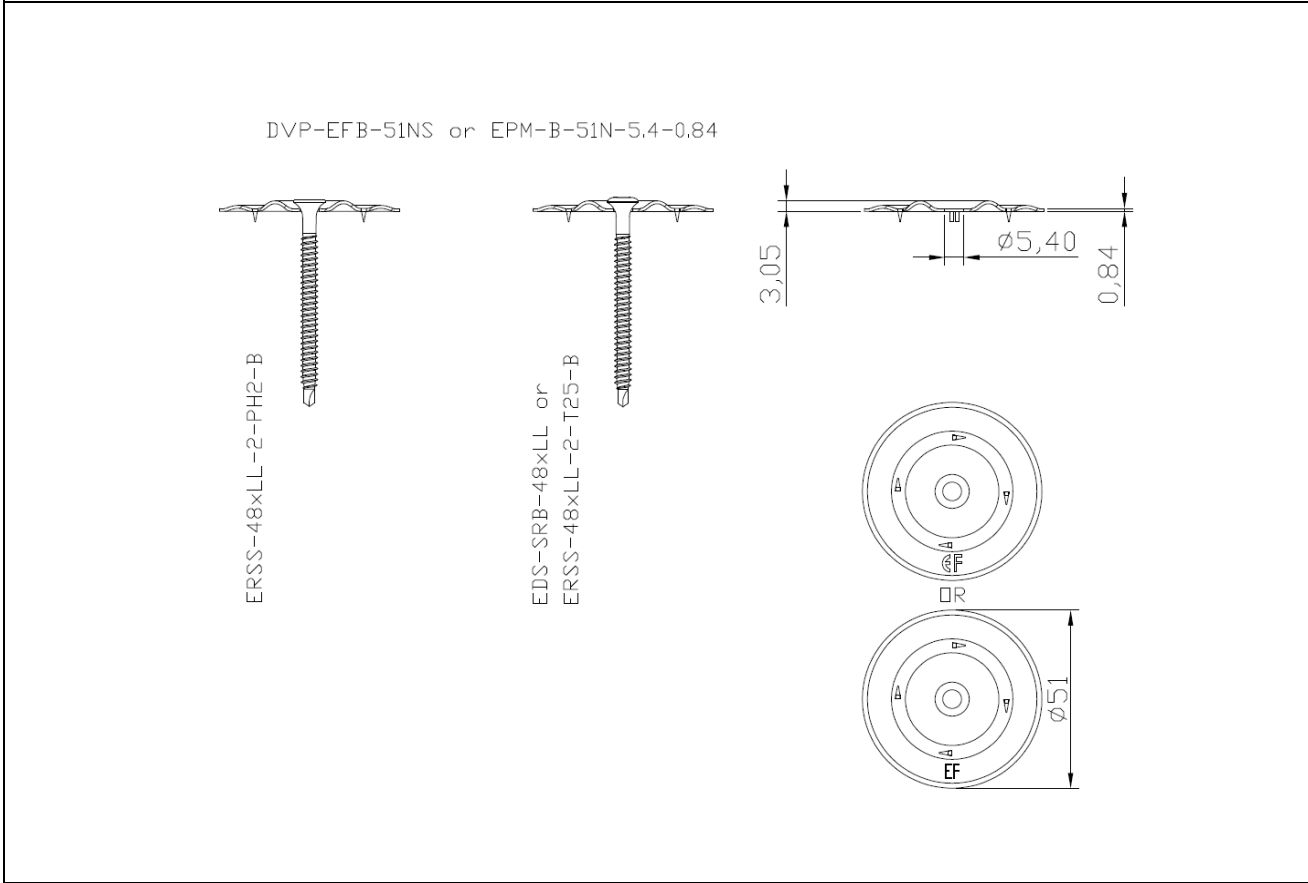
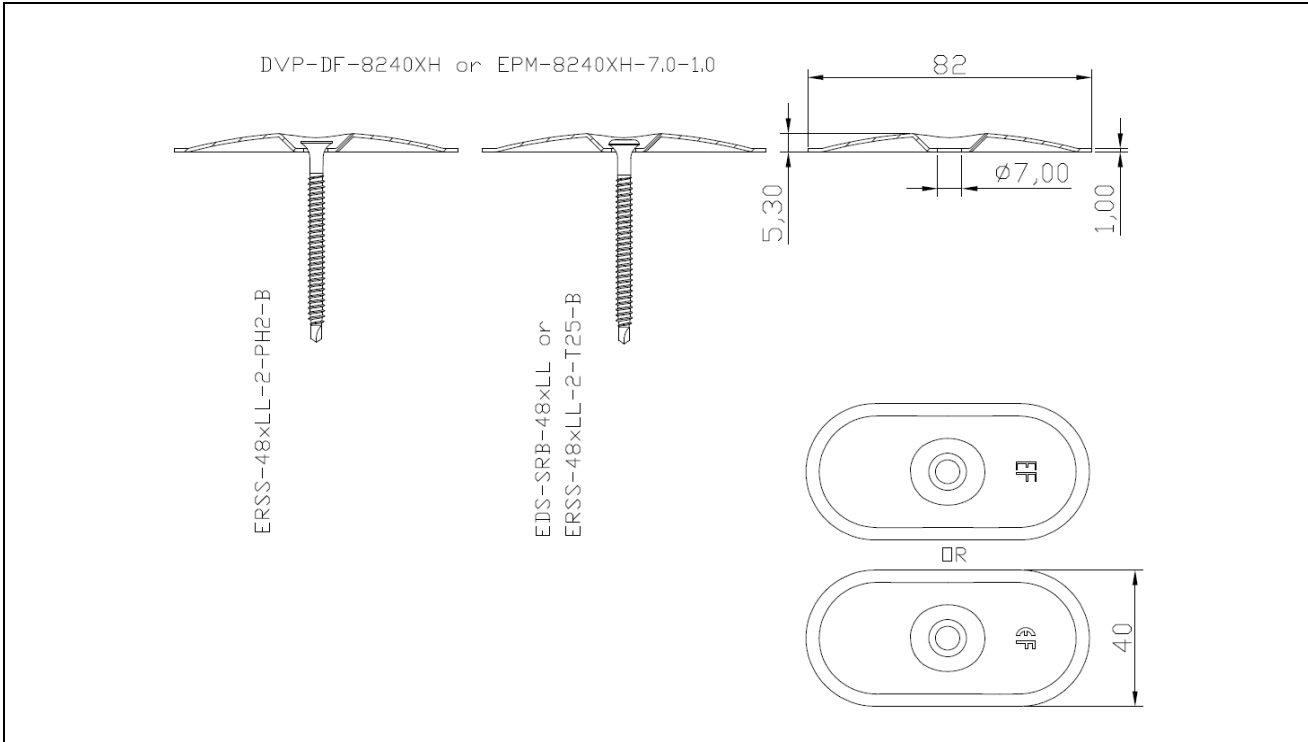


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.18</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	



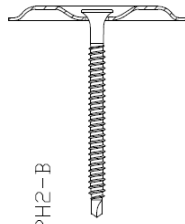


<b>Eurofast Flat Roof Fasteners</b>	
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	<b>Annex D.19</b>

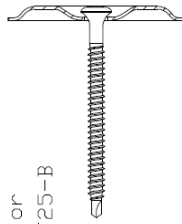


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.20</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

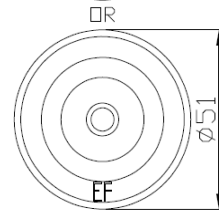
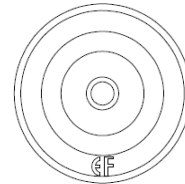
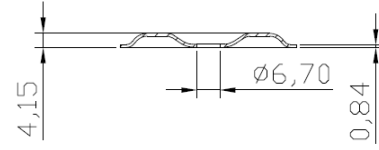
DVP-EF-51N or EPM-51N-6.7-0.84



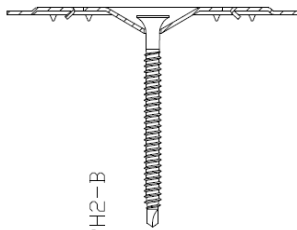
ERSS-48xLL-2-PH2-B



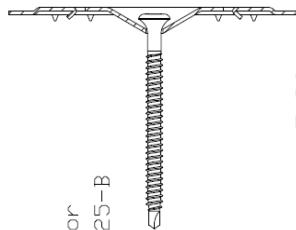
EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B



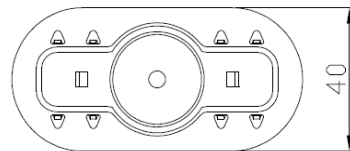
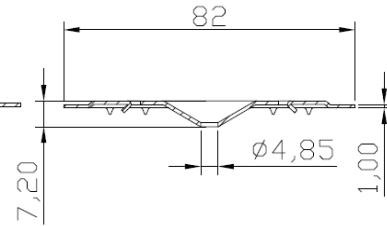
DVP-EFB-8240D or EPM-B-8240D-4.85-1.0



ERSS-48xLL-2-PH2-B



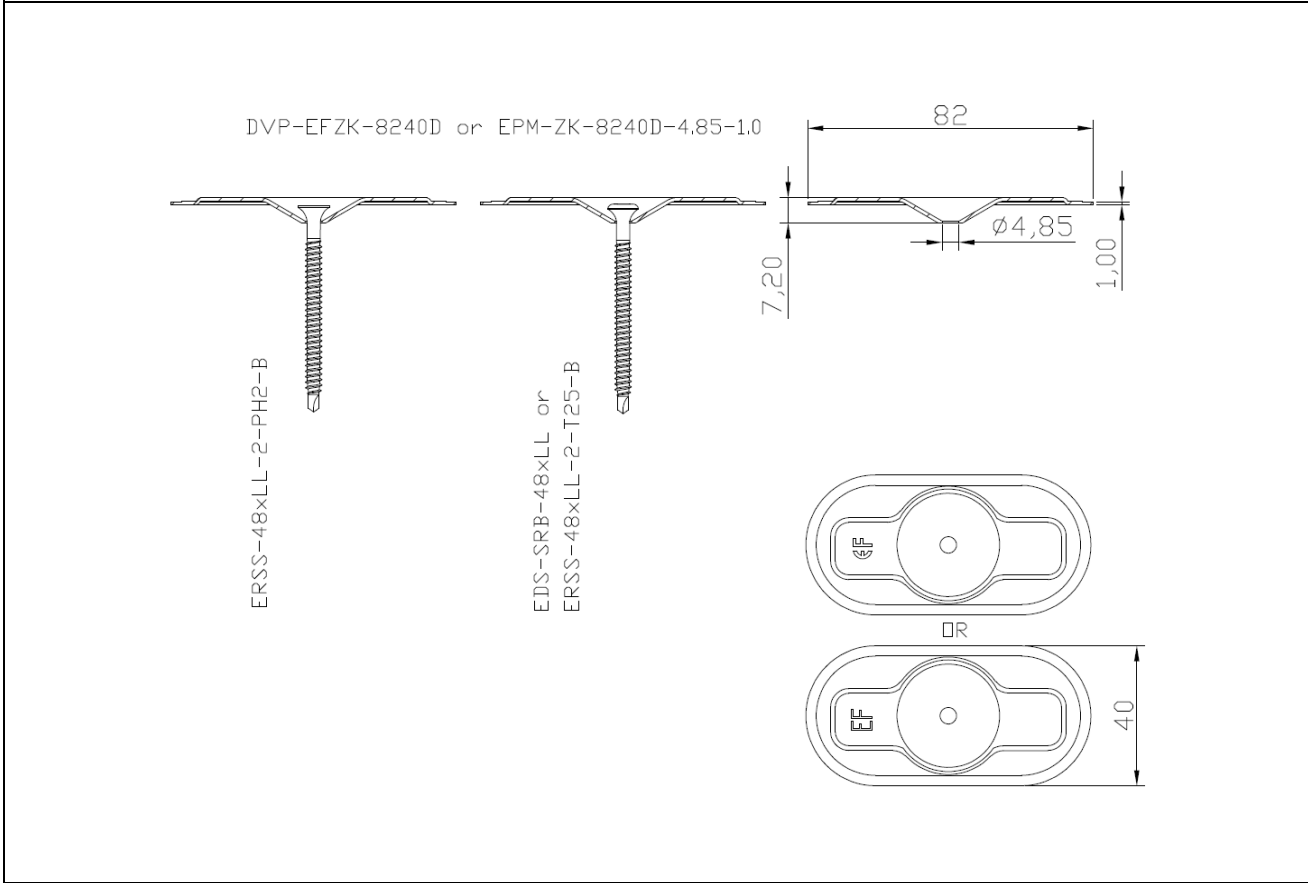
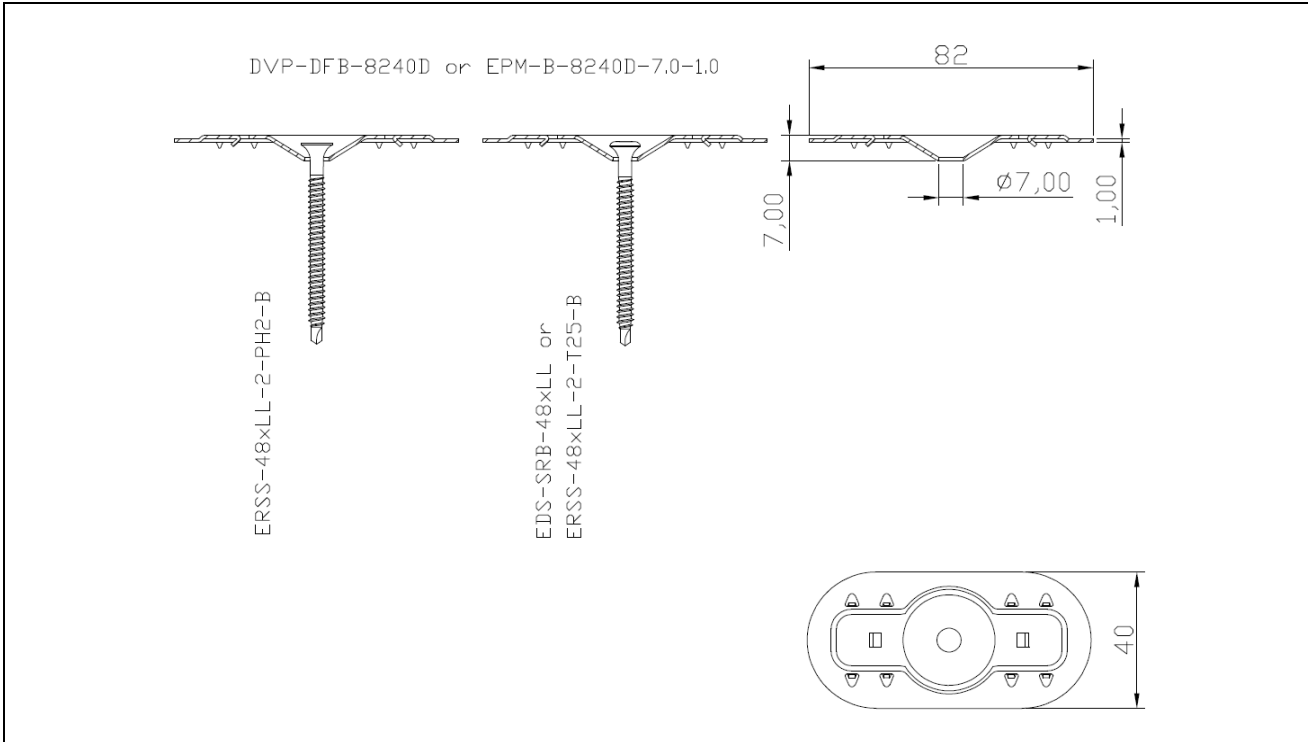
EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B



**Eurofast Flat Roof Fasteners**

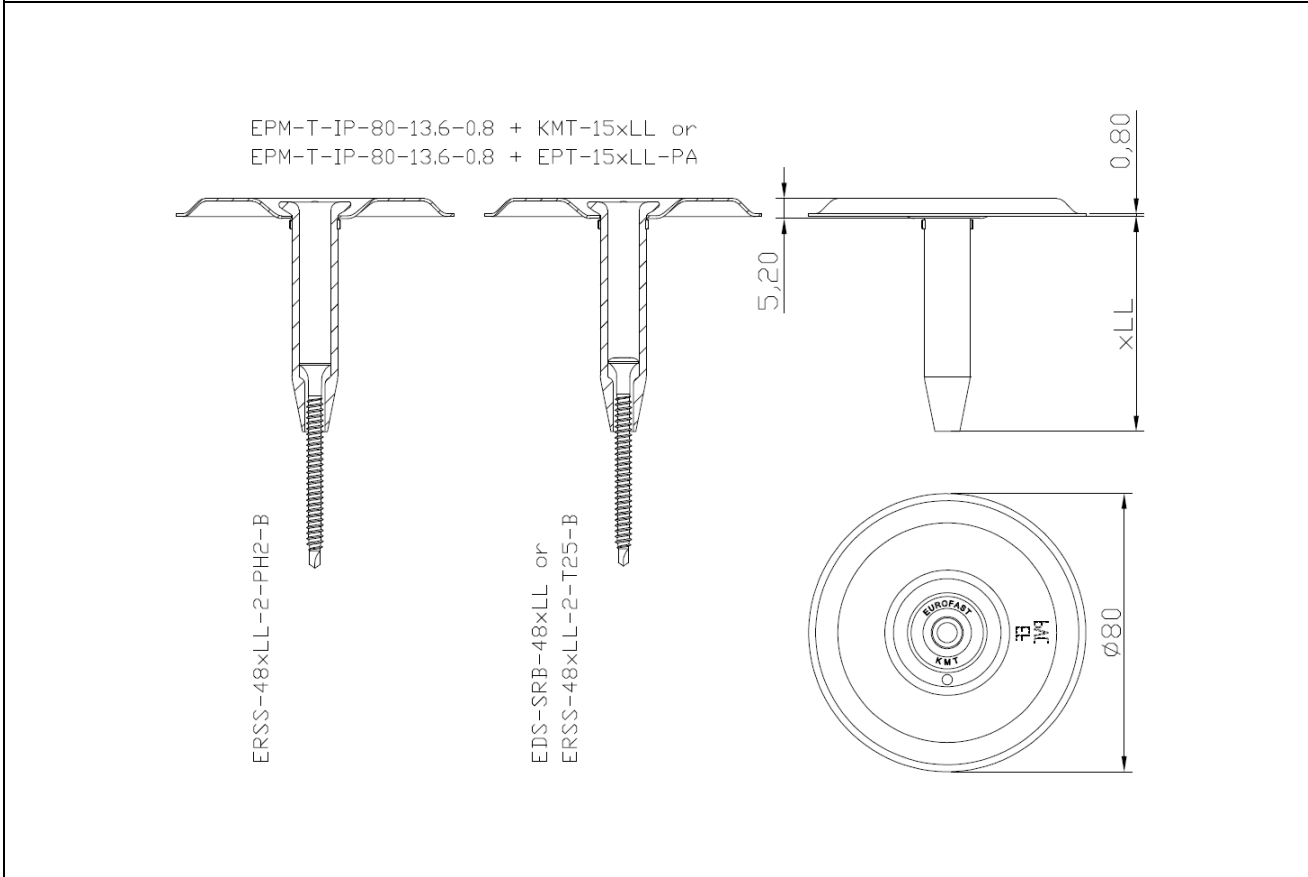
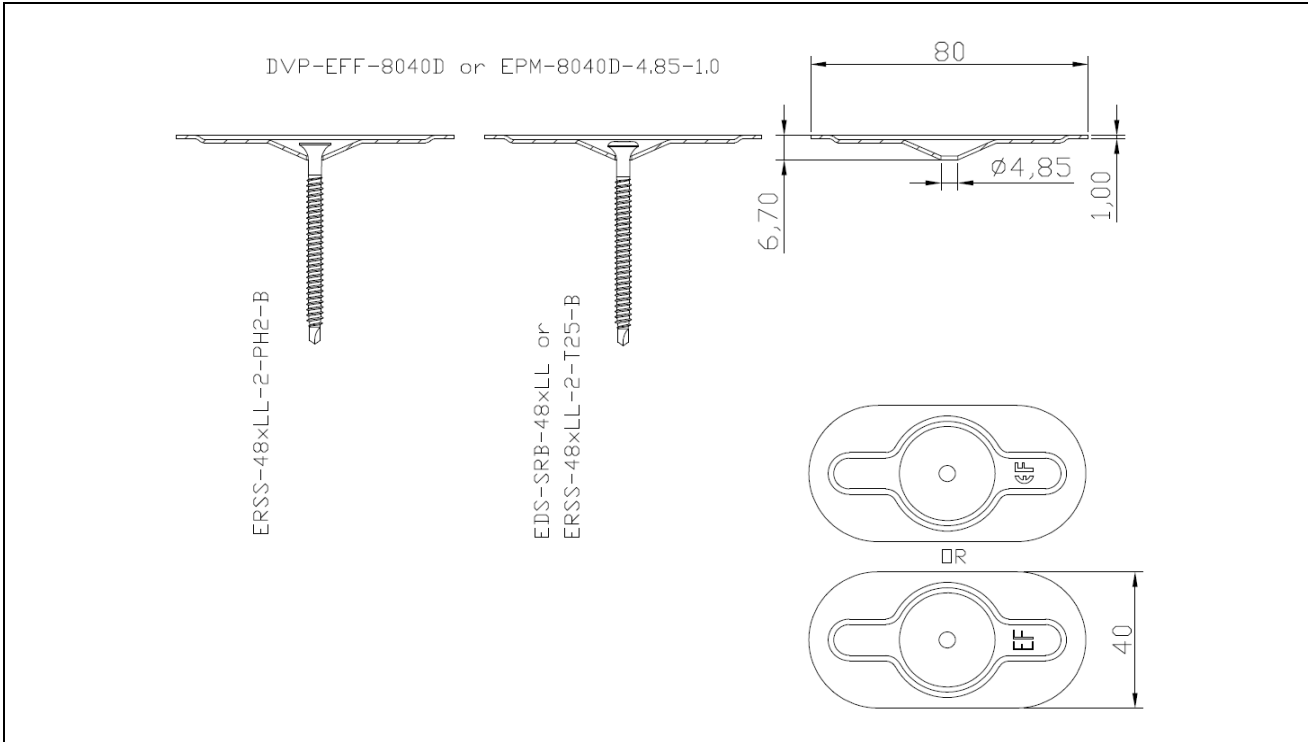
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B)  
(ERSS-48xLL-2-PH2-B)

**Annex D.21**

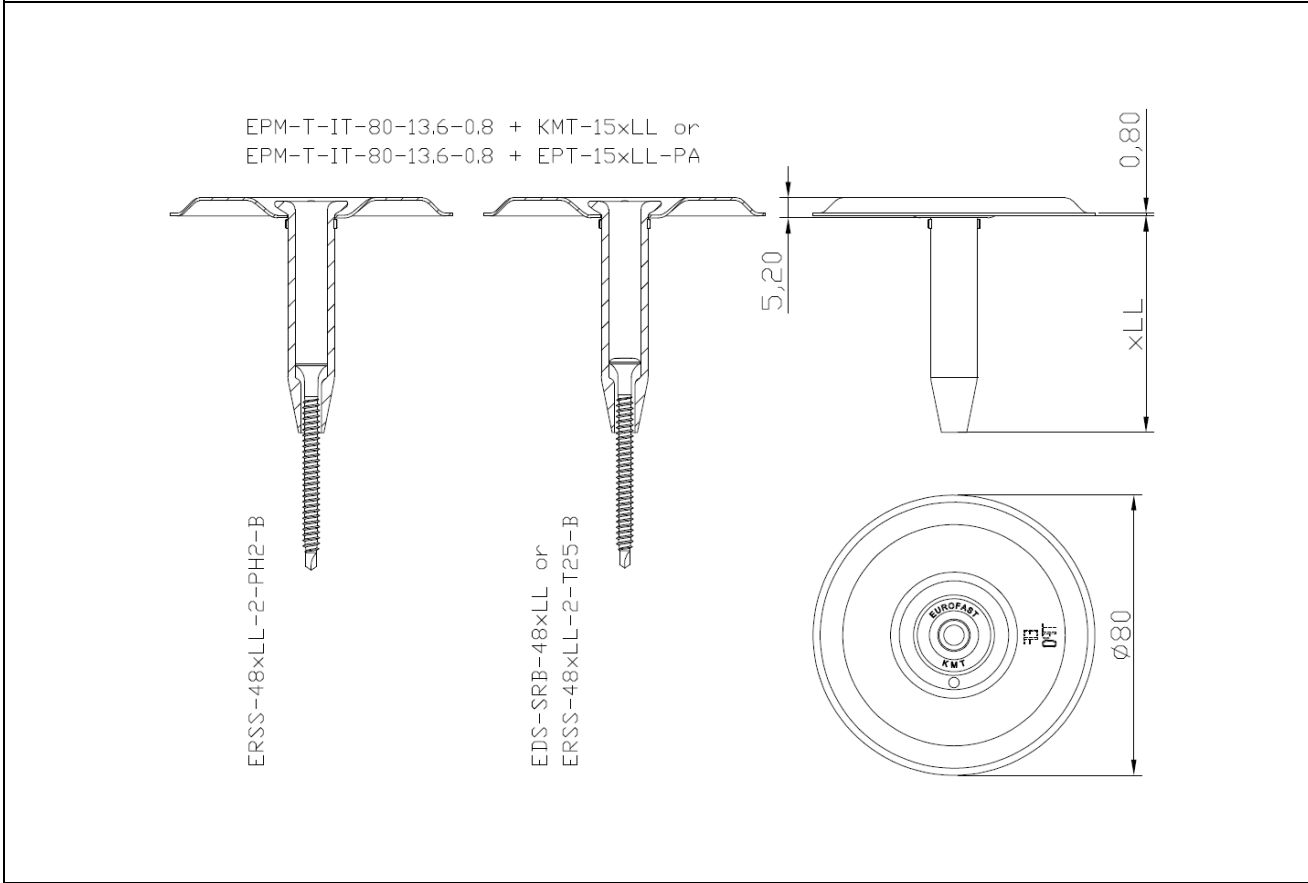
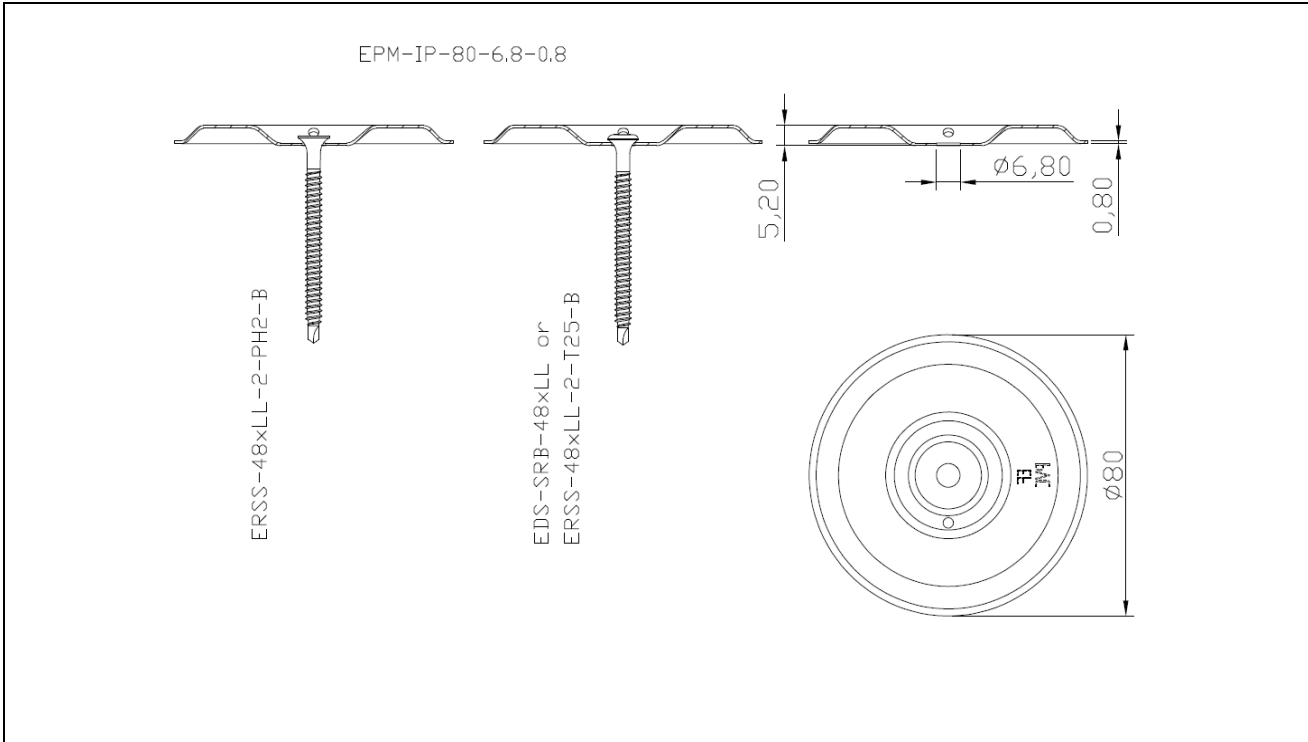


<b>Eurofast Flat Roof Fasteners</b>	
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

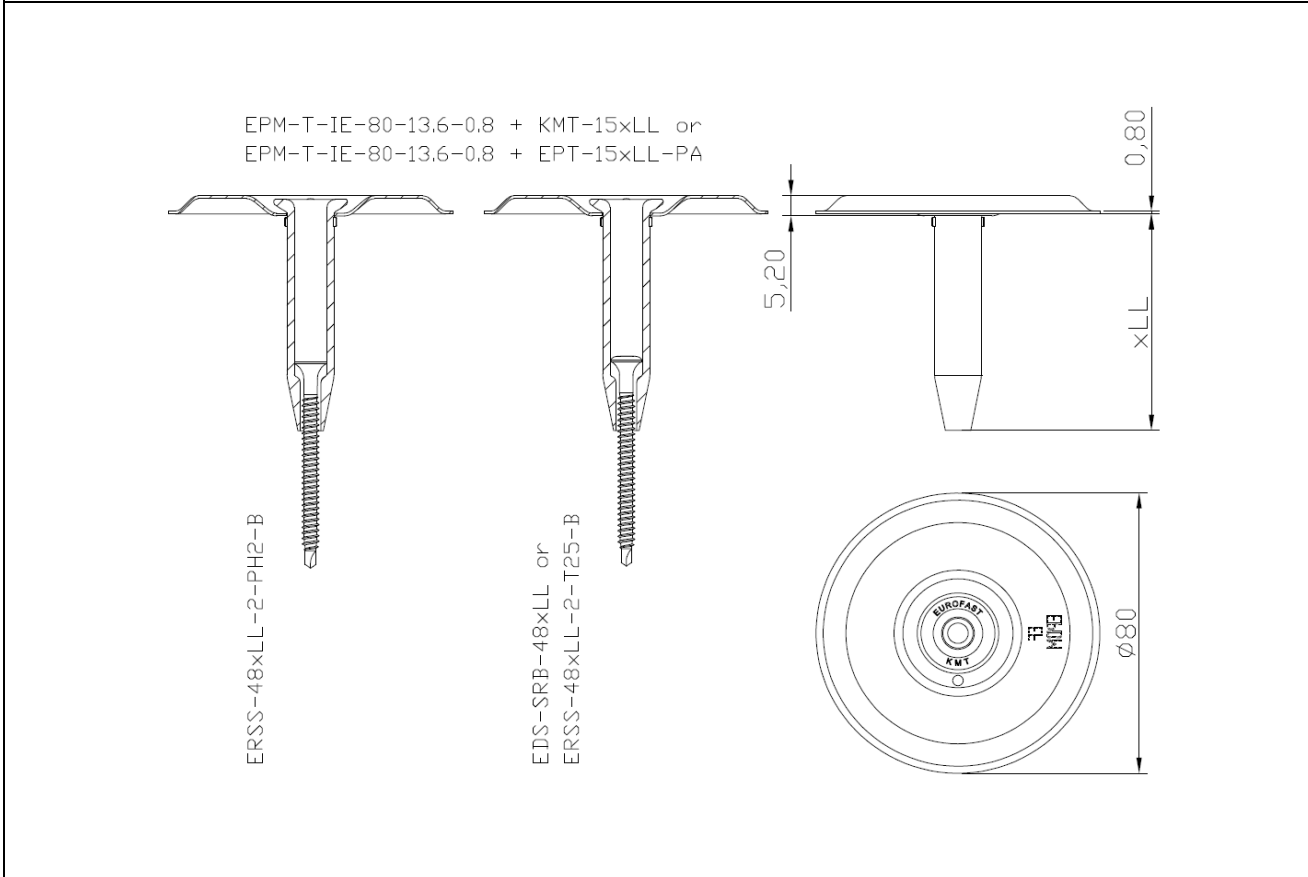
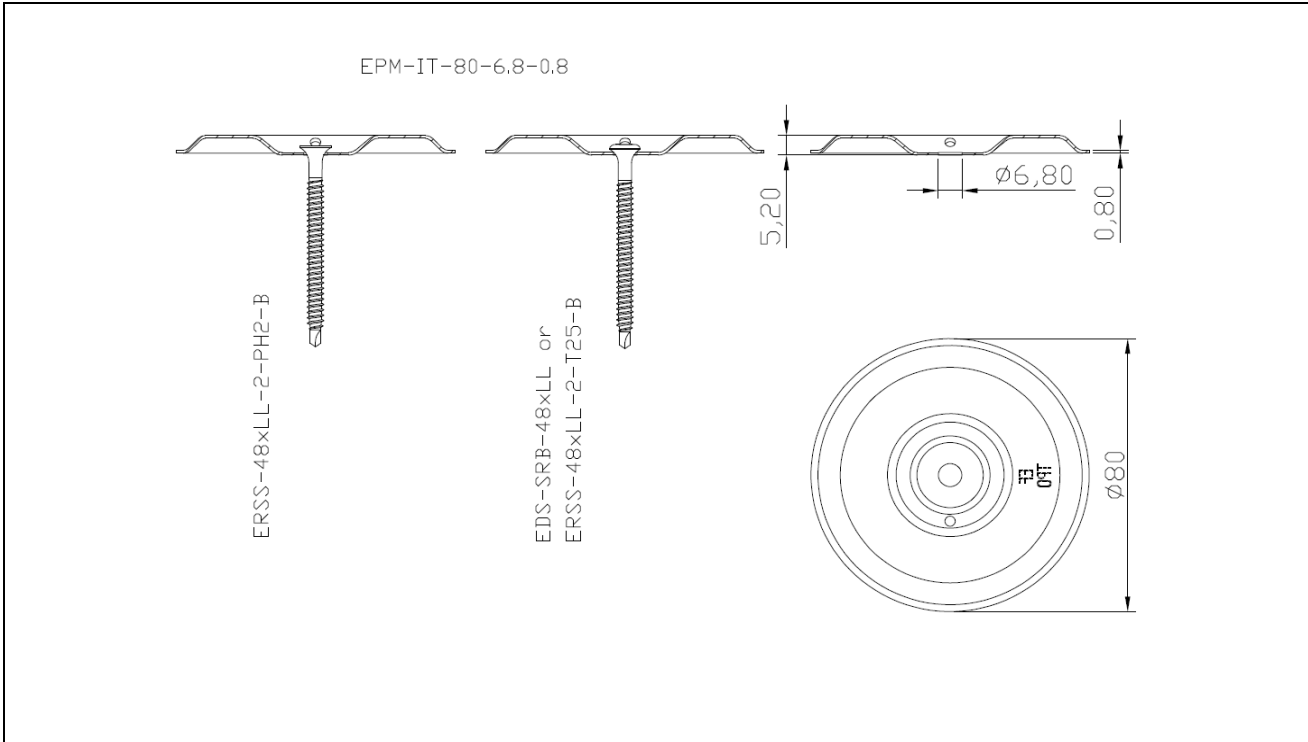
**Annex D.22**



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.23</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

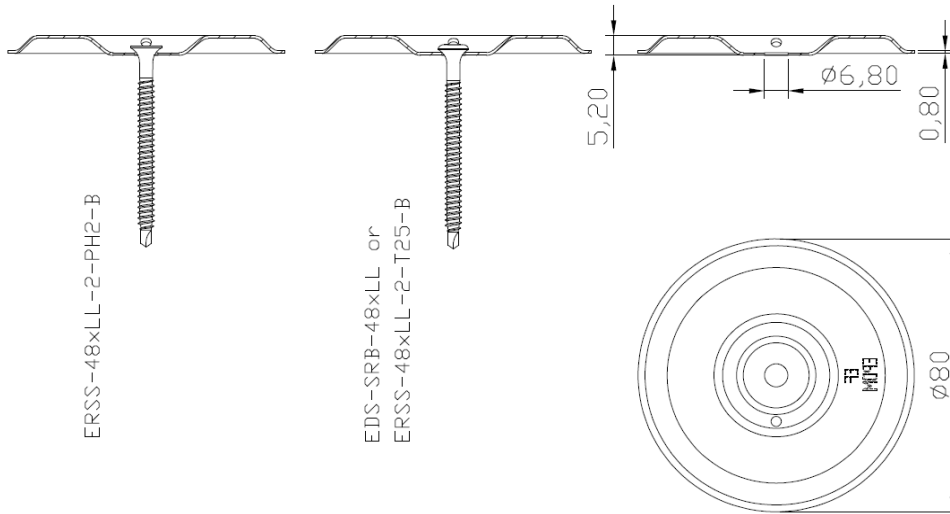


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.24</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

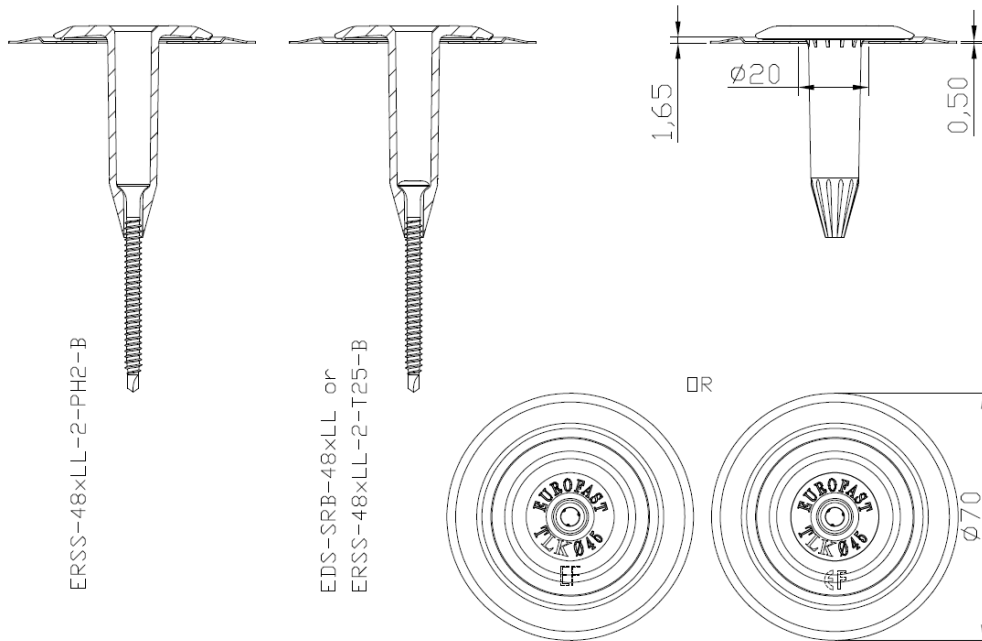


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex D.25</b>
EDS-SRB-48xLL (ERSS-48xLL-2-T25-B) (ERSS-48xLL-2-PH2-B)	

EPM-IE-80-6.8-0.8



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



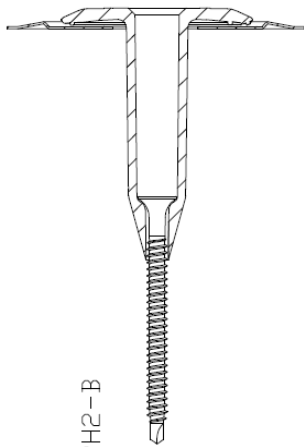
**Eurofast Flat Roof Fasteners**

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

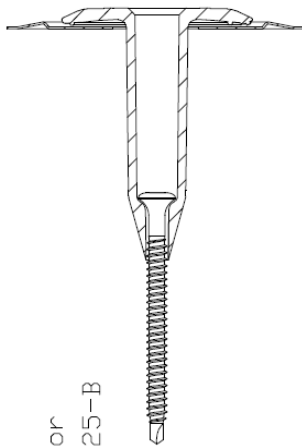
**Annex D.26**



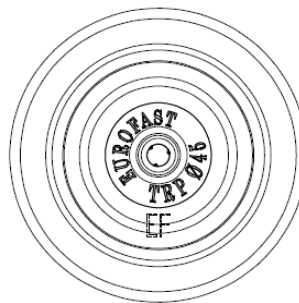
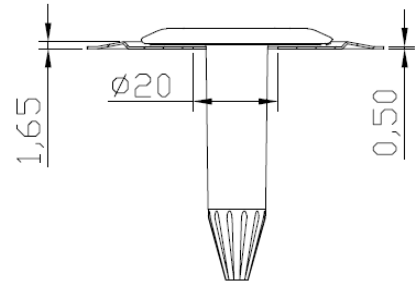
DVP-DL-70N + TRP-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



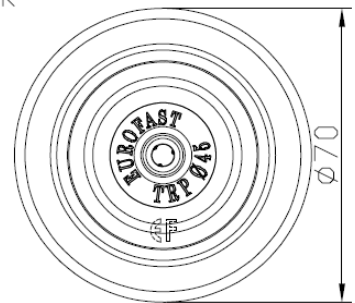
ERSS-48xLL-2-PH2-B



EDS-SRB-48xLL or  
ERSS-48xLL-2-T25-B



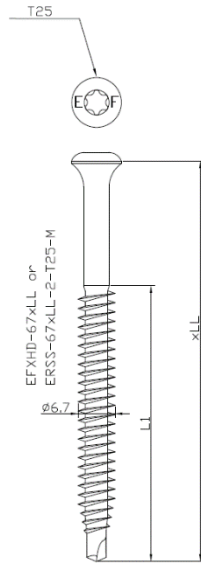
OR



**Eurofast Flat Roof Fasteners**

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

**Annex D.27**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 030351-00-0402)					
	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)

Annex E.1

Characteristic Values of Axial Pull-Through * Resistance [kN] (according to Figures 4 and 5 of UKAD 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

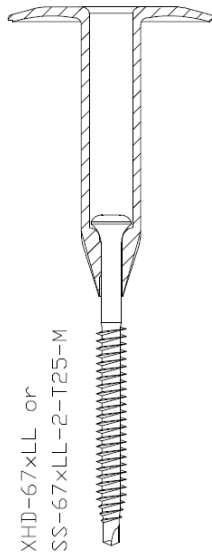
<b>Screw:</b>			
EFXHD-67xLL	(ERSS-67xLL-2-T25-M)		
<b>Metal pressure plate:</b>			
DVP-EF-5010D	(EPM-50D-6.3-1.0)	DVP-KMT-8240 + KMT-15xLL	(EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA)
DVP-EF-5010N	(EPM-50N-6.3-1.0)	EPM-T-IP-80-13.6-0.8 + KMT-15xLL	(EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA)
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	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			
<b>Pressure plate with tube:</b>		<b>Termination bar:</b>	
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)		
<b>Substrate:</b>			
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	
<b>Installation data:</b>			
Max. drilling capacity in steel substrate:		2x1,25 mm	
HUKAD type:		Raised Bugle HUKAD	
Recess:		TX25	
Fixing in steel substrate:		Minimum 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

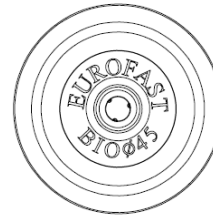
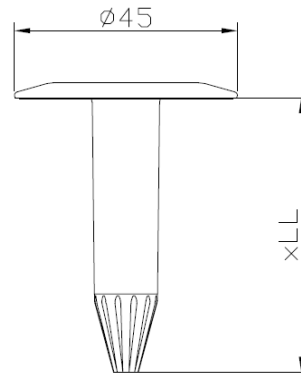
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

Annex E.2

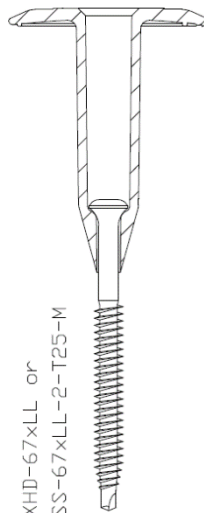
BID-45xLL or EPT-45xLL-BID



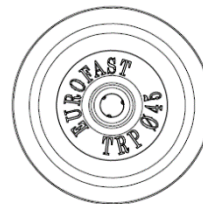
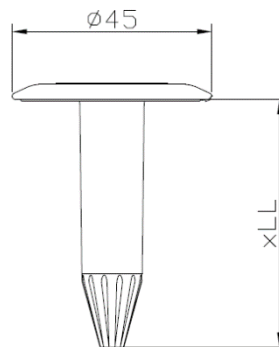
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



TRP-45xLL or EPT-45xLL-PA



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

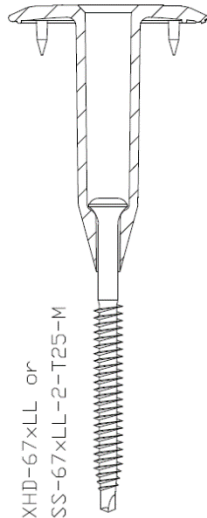


**Eurofast Flat Roof Fasteners**

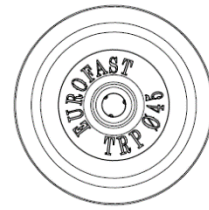
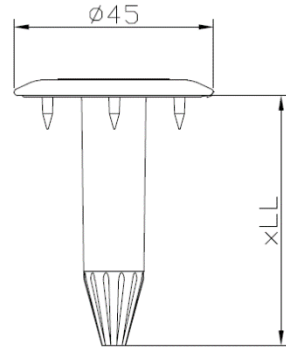
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.3**

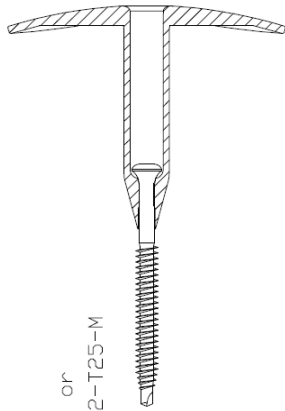
BTRP-45xLL or EPT-B-45xLL-PA



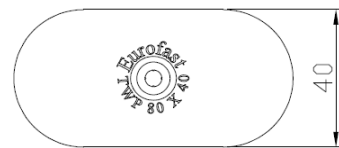
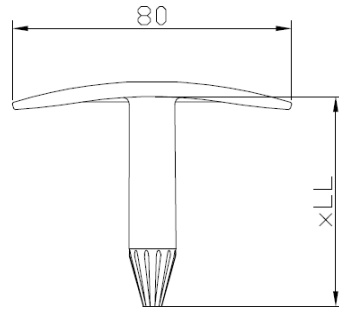
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



TWP-8040xLL or EPT-8040xLL-PA



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

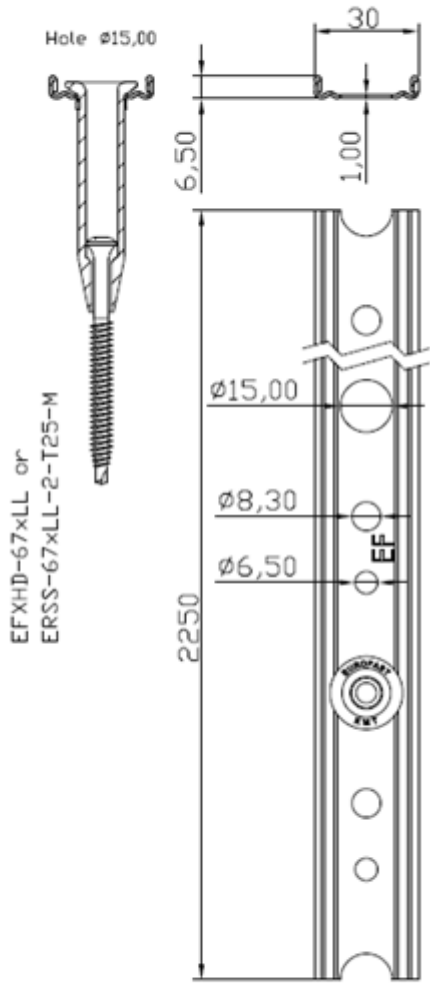


**Eurofast Flat Roof Fasteners**

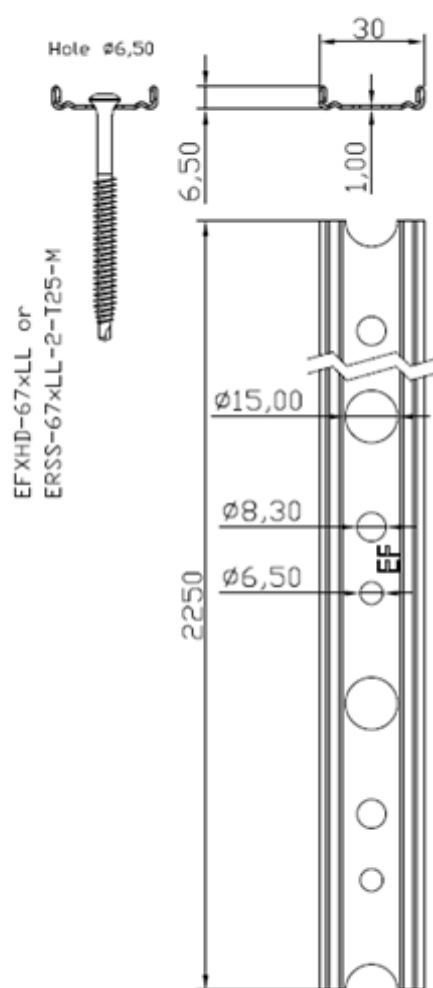
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.4**

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

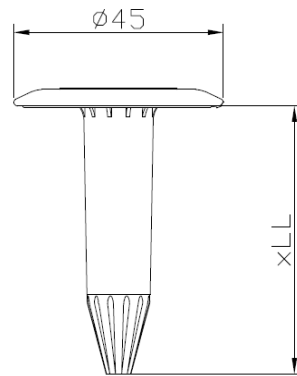
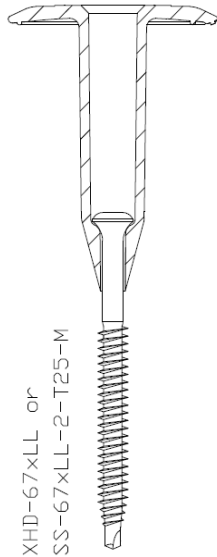


**Eurofast Flat Roof Fasteners**

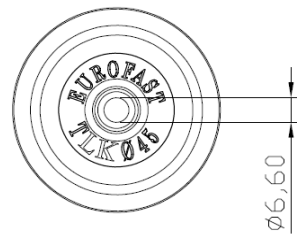
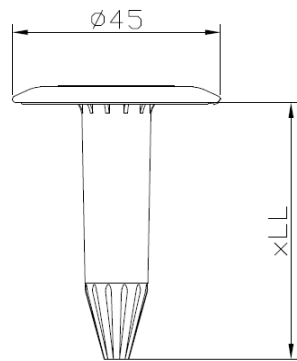
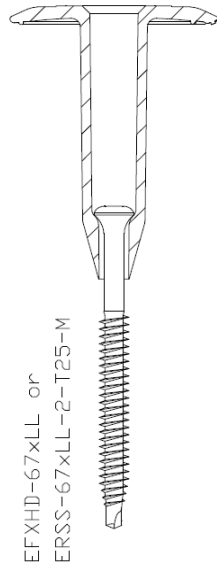
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.5**

TLK-45xLL or EPT-45xLL-PP



HTLK-45xLL or EPT-□-45xLL-PP

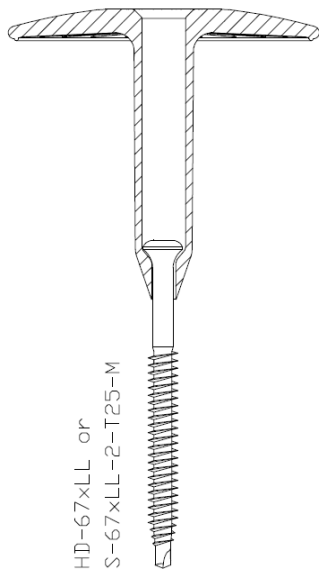


**Eurofast Flat Roof Fasteners**

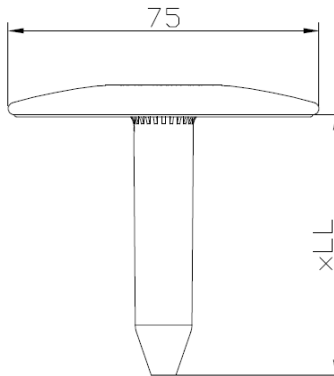
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.6**

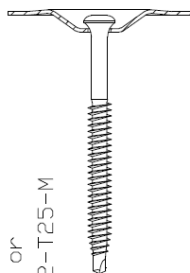
TLK-75xLL or EPT-75xLL-PP



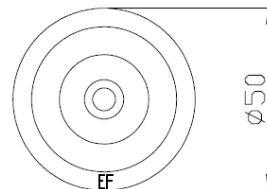
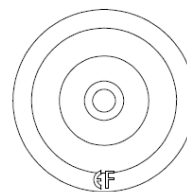
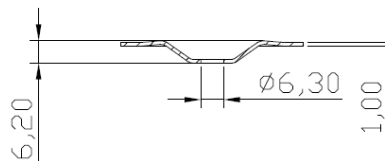
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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



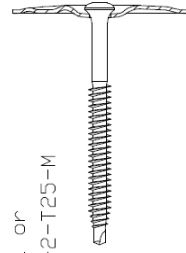
**Eurofast Flat Roof Fasteners**

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

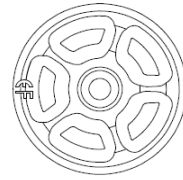
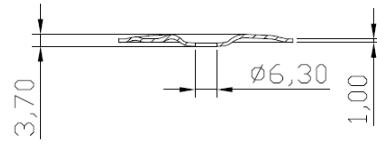
**Annex E.7**



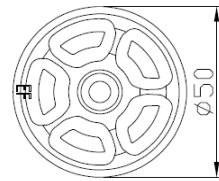
DVP-EF-5010N or EPM-50N-6,3-1.0



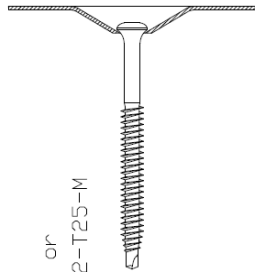
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



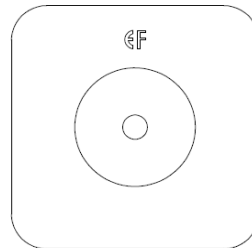
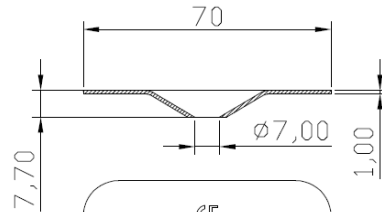
OR



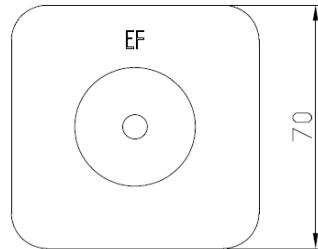
DVP-DF-7070D or EPM-7070D-7.0-1.0



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



OR

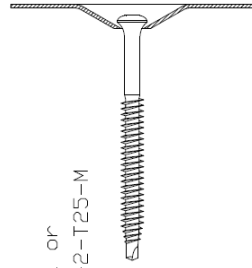


**Eurofast Flat Roof Fasteners**

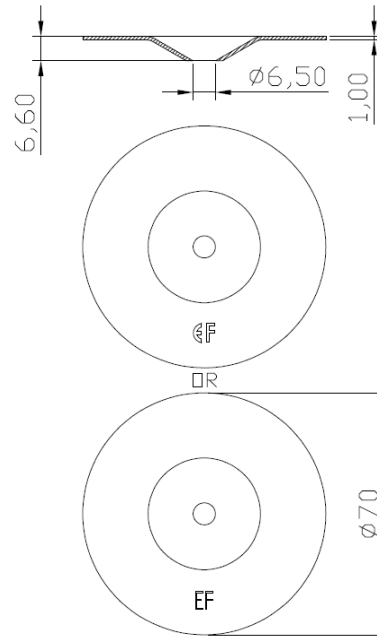
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.8**

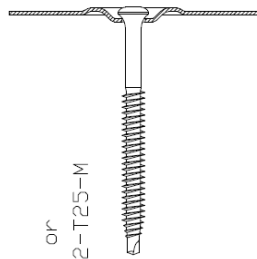
DVP-EF-7010D or EPM-70D-6.5-1.0



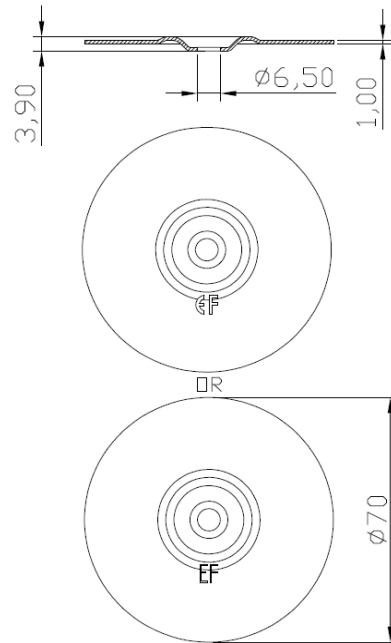
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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

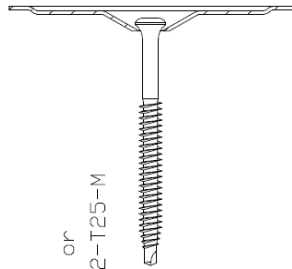


**Eurofast Flat Roof Fasteners**

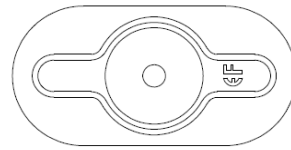
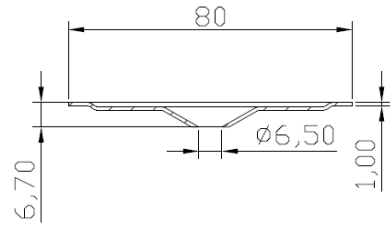
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.9**

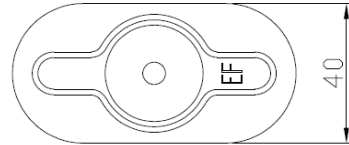
DVP-EF-8040D or EPM-8040D-6.5-1.0



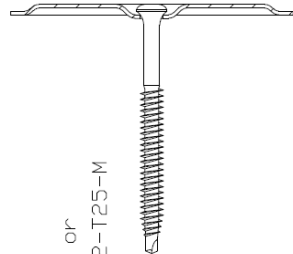
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



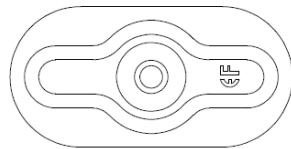
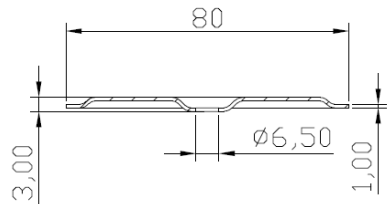
DR



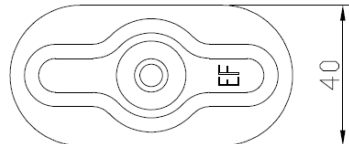
DVP-EF-8040N or EPM-8040N-6.5-1.0



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



DR

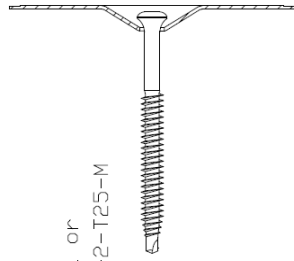


**Eurofast Flat Roof Fasteners**

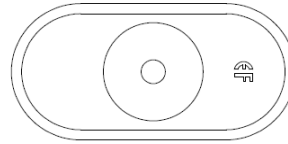
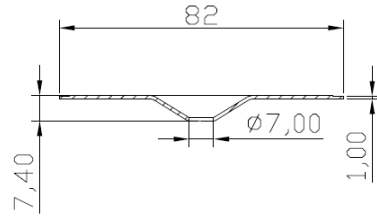
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.10**

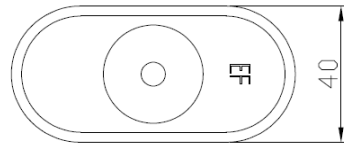
DVP-DF-8240D or EPM-8240D-7.00-1.0



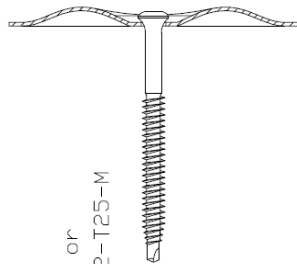
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



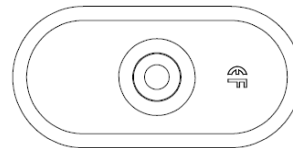
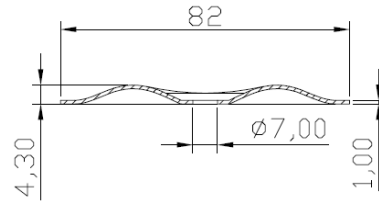
OR



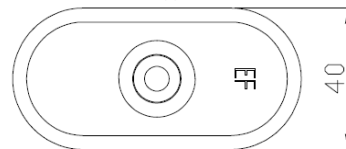
DVP-DF-8240H or EPM-8240H-7.00-1.0



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



OR

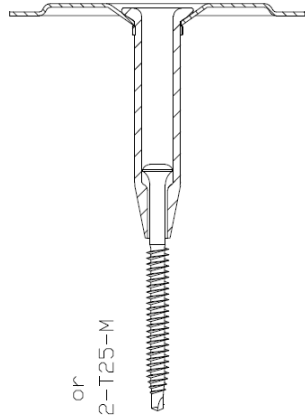


**Eurofast Flat Roof Fasteners**

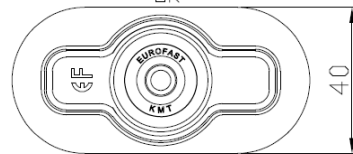
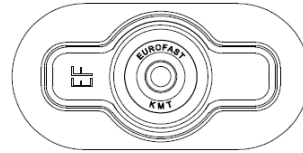
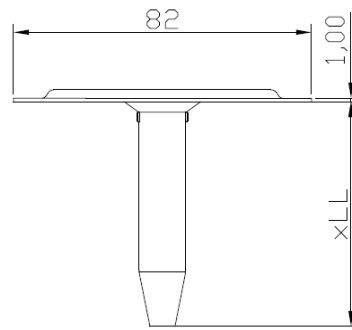
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.11**

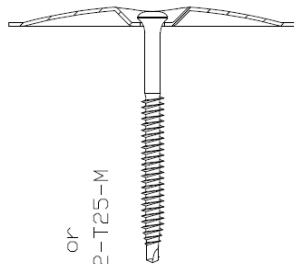
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



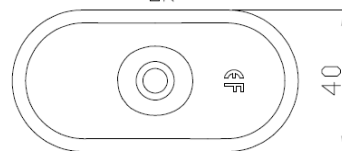
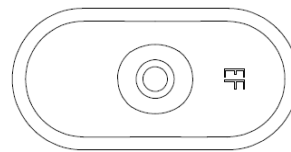
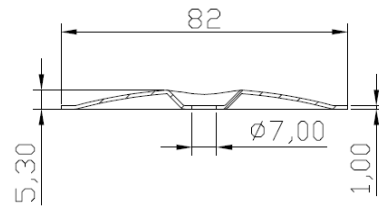
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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

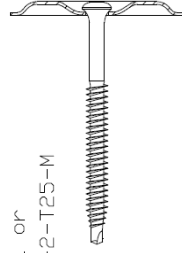


**Eurofast Flat Roof Fasteners**

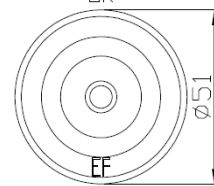
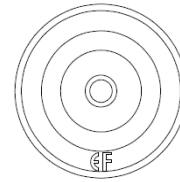
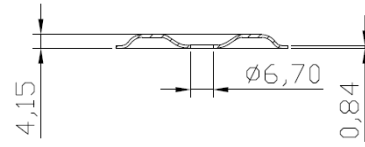
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.12**

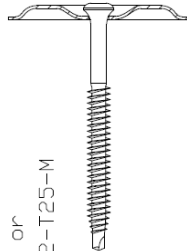
DVP-EF-51N or EPM-51N-6,7-0.84



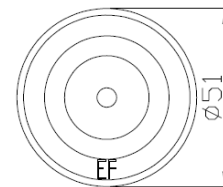
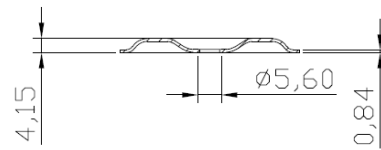
EFXHHD-67xLL or  
ERSS-67xLL-2-T25-M



EPM-51N-5,6-0.84



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

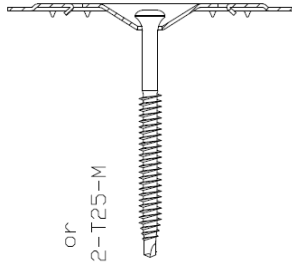


**Eurofast Flat Roof Fasteners**

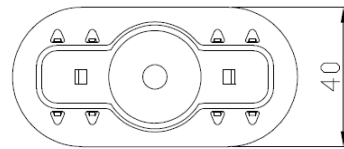
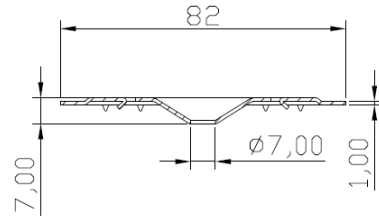
EFXHHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.13**

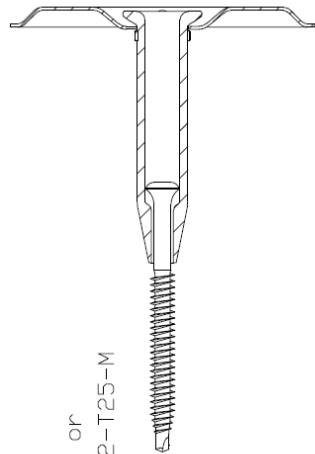
DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



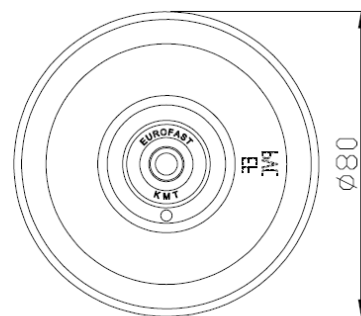
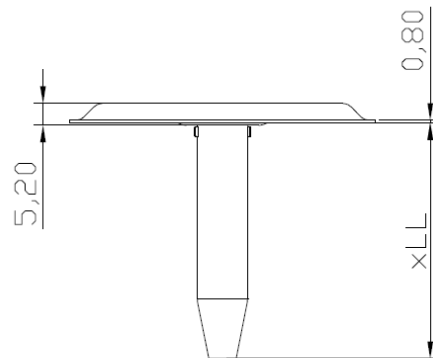
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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

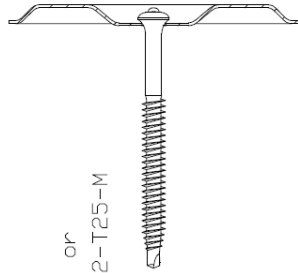


**Eurofast Flat Roof Fasteners**

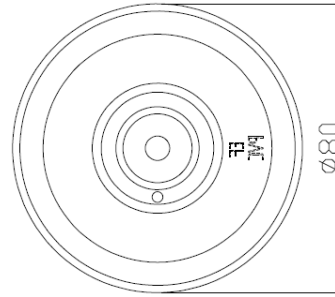
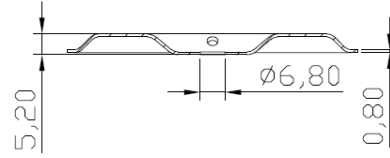
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.14**

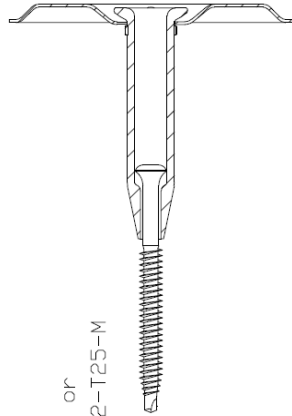
EPM-IP-80-6.8-0.8



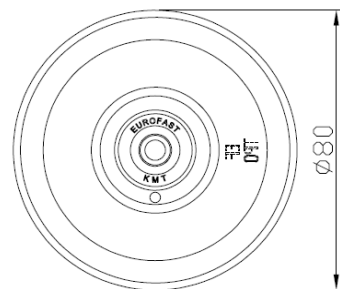
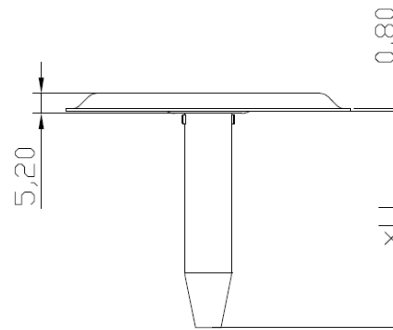
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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



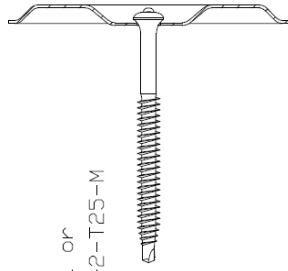
**Eurofast Flat Roof Fasteners**

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

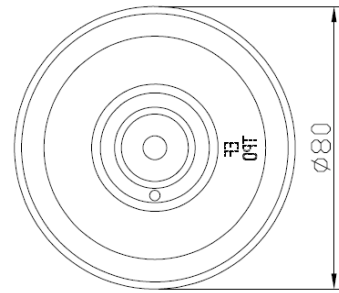
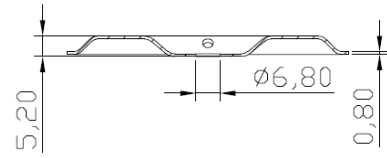
**Annex E.15**



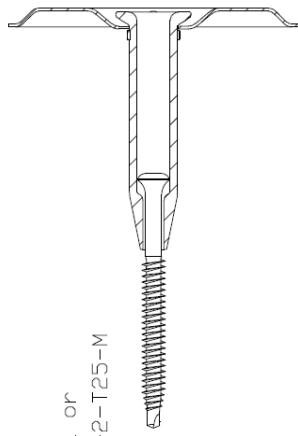
EPM-IT-80-6,8-0,8



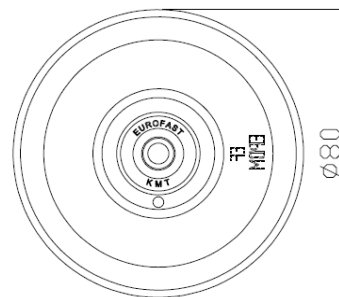
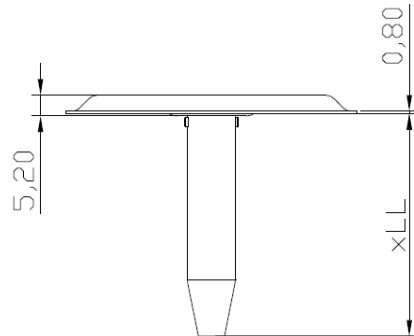
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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

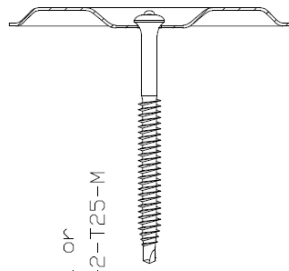


**Eurofast Flat Roof Fasteners**

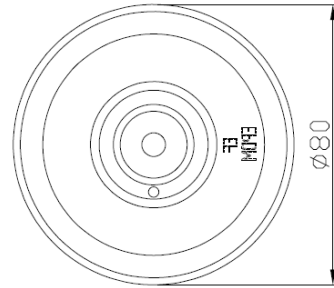
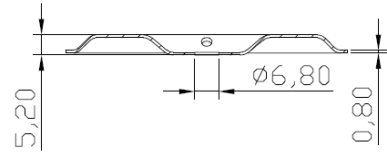
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.16**

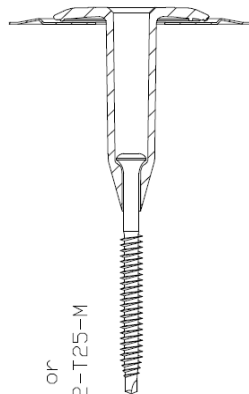
EPM-IE-80-6.8-0.8



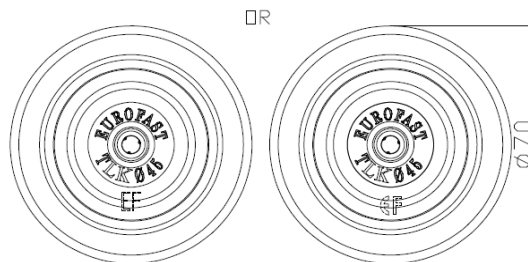
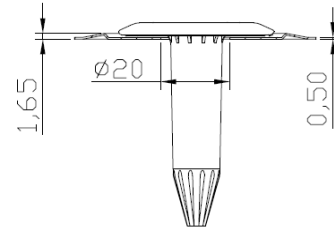
EFXHD-67xLL or  
ERSS-67xLL-2-T25-M



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



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

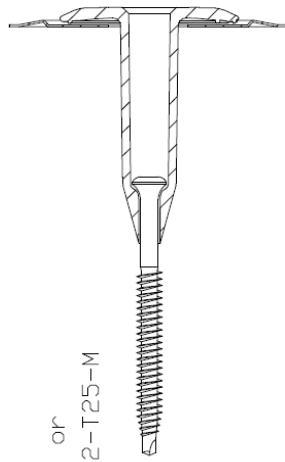


**Eurofast Flat Roof Fasteners**

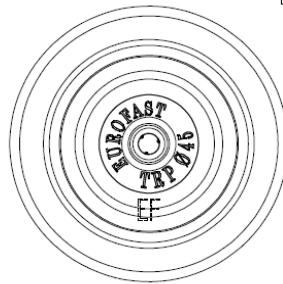
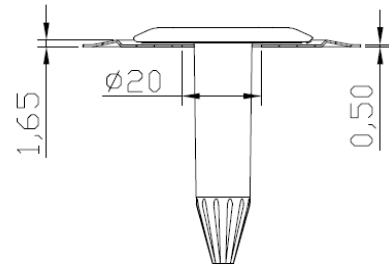
EFXHD-67xLL (ERSS-67xLL-2-T25-M)

**Annex E.17**

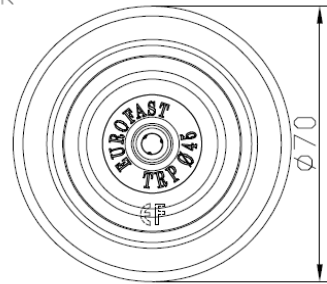
DVP-DL-70N + TRP-45xLL or  
 EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



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



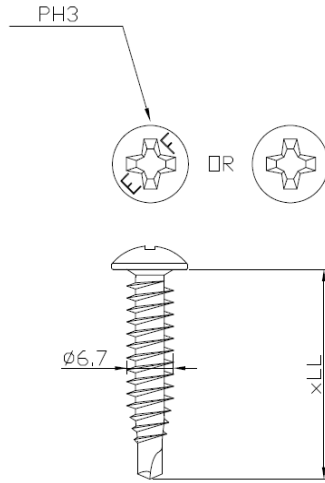
OR



**Eurofast Flat Roof Fasteners**

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

**Annex E.18**



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

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figure 3 of UKAD 030351-00-0402)								
t [mm]	OSB/3				Chipboard	Plywood		Timber C24
	16	18	21	25	19	18	21	24
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 Figures 4 and 5 of UKAD 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)

**Annex F.1**

**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:**

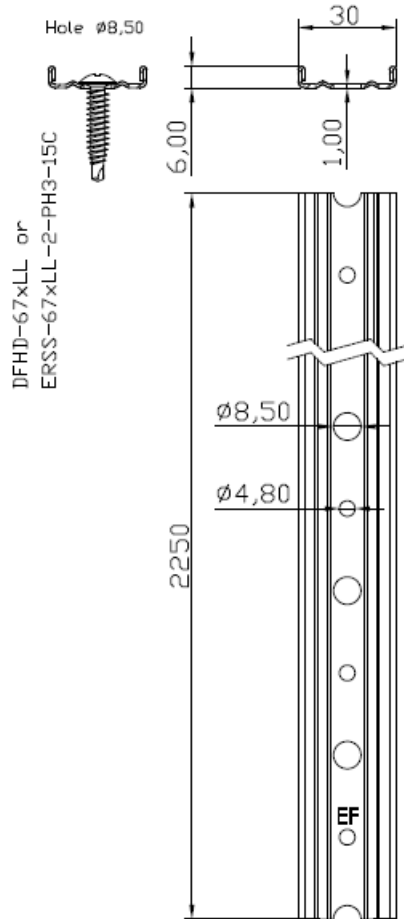
Max. drilling capacity in steel substrate:	2x1,25 mm
HUKAD type:	Truss HUKAD
Recess:	PH3
Fixing in steel substrate:	Minimum 20 mm of the screw fixed through the steel sheet
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation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

**Eurofast Flat Roof Fasteners**

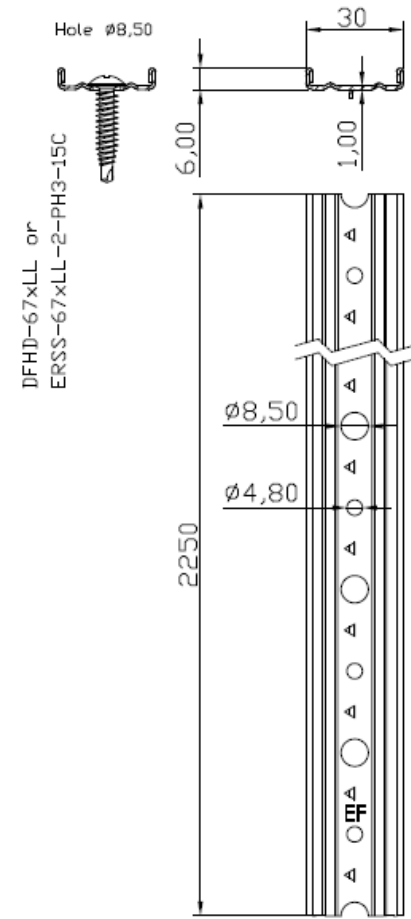
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

**Annex F.2**

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

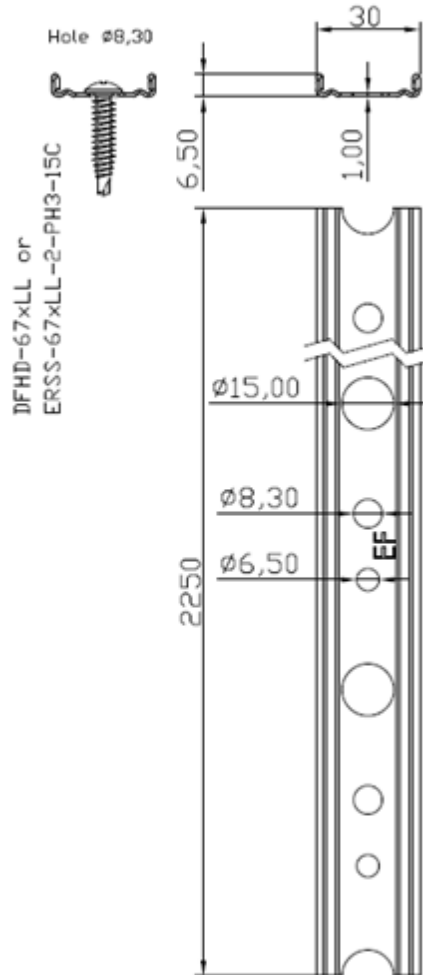


**Eurofast Flat Roof Fasteners**

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

**Annex F.3**

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

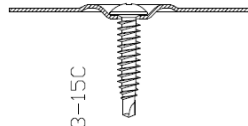


**Eurofast Flat Roof Fasteners**

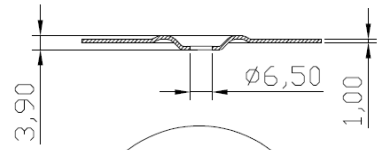
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

**Annex F.4**

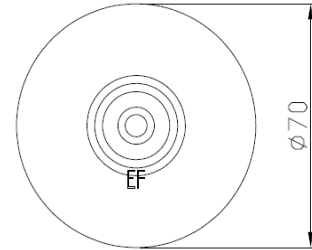
DVP-EF-7010N or EPM-70N-6,5-1.0



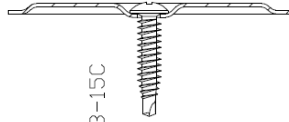
DFHD-67xLL or  
ERSS-67xLL-2-PH3-15C



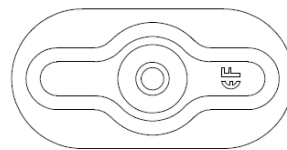
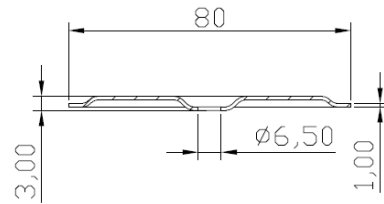
OR



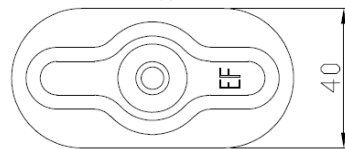
DVP-EF-8040N or EPM-8040N-6,5-1.0



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



OR



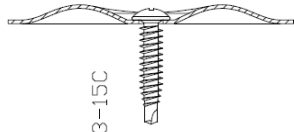
**Eurofast Flat Roof Fasteners**

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

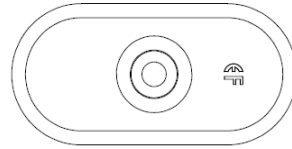
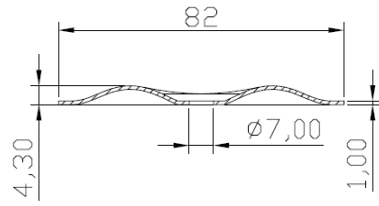
**Annex F.5**



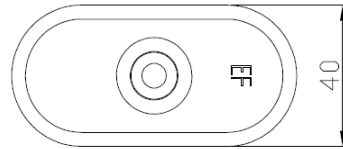
DVP-DF-8240H or EPM-8240H-7.0-1.0



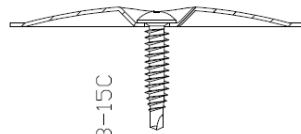
DFHD-67xLL or  
ERSS-67xLL-2-PH3-15C



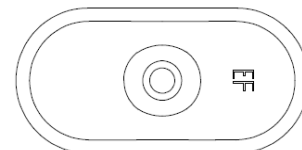
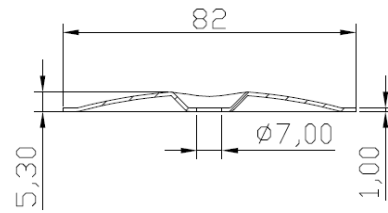
DR



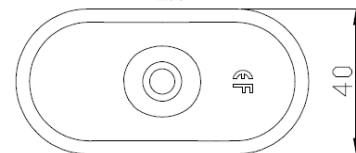
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



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



DR

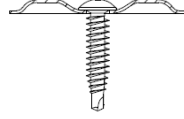


**Eurofast Flat Roof Fasteners**

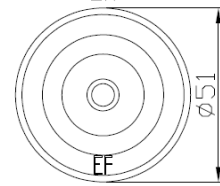
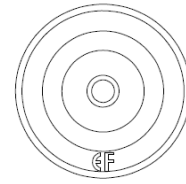
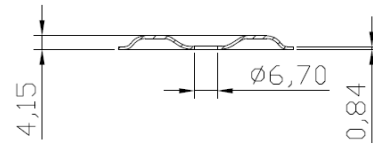
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

**Annex F.6**

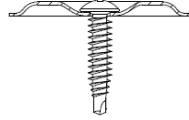
DVP-EF-51N or EPM-51N-6.7-0.84



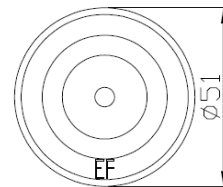
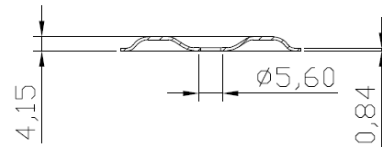
DFHD-67xLL or  
ERSS-67xLL-2-PH3-15C



EPM-51N-5.6-0.84



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

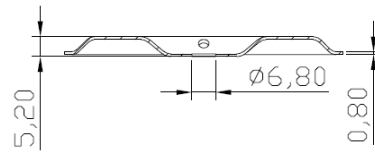
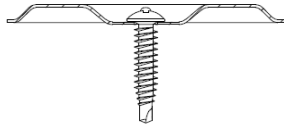


**Eurofast Flat Roof Fasteners**

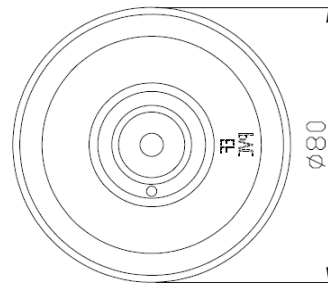
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

**Annex F.7**

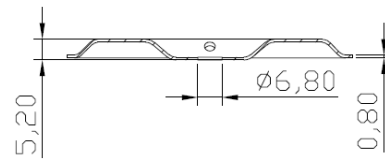
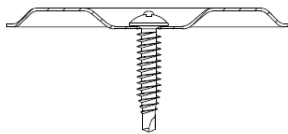
EPM-IP-80-6.8-0.8



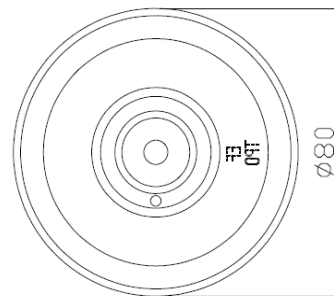
DFHD-67xLL or  
ERSS-67xLL-2-PH3-15C



EPM-IT-80-6.8-0.8



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

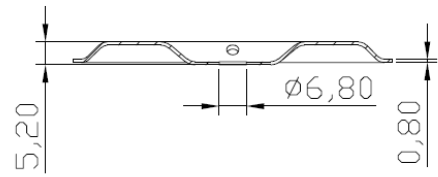
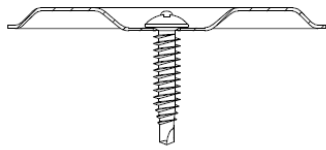


**Eurofast Flat Roof Fasteners**

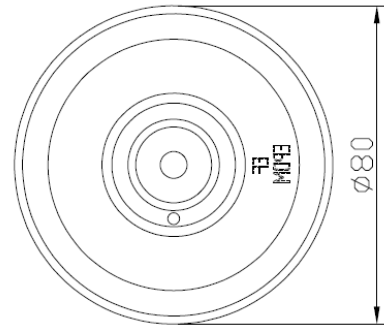
DFHD-67xLL (ERSS-67xLL-2-PH3-15C)

**Annex F.8**

EPM-IE-80-6.8-0.8



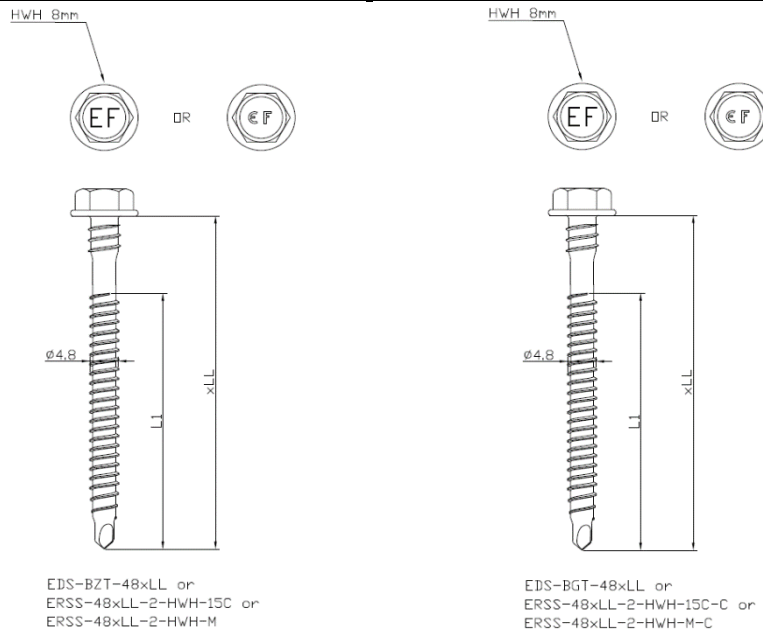
DFHD-67xLL or  
ERSS-67xLL-2-PH3-15C



**Eurofast Flat Roof Fasteners**

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

**Annex F.9**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figure 3 of UKAD 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)

### Annex G.1

<b>Characteristic Values of Axial Pull-Through* Resistance [kN]</b> (according to Figures 4 and 5 of UKAD 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	6,86
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

<b>Characteristic Values of Axial Pull-Through* Resistance [kN]</b> (according to Figures 4 and 5 of UKAD 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)

### Annex G.2

**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:**

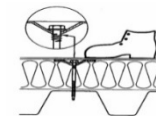
EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)  
 EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)  
 EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

**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
HUKAD type:	Hex Washer HUKAD 8 mm
Screws EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C / ERSS-48xLL-2-HWH-M-C):	Collated screws for use with <b>DEK-FIX</b> tool
Fixing in steel substrate:	Minimum 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**

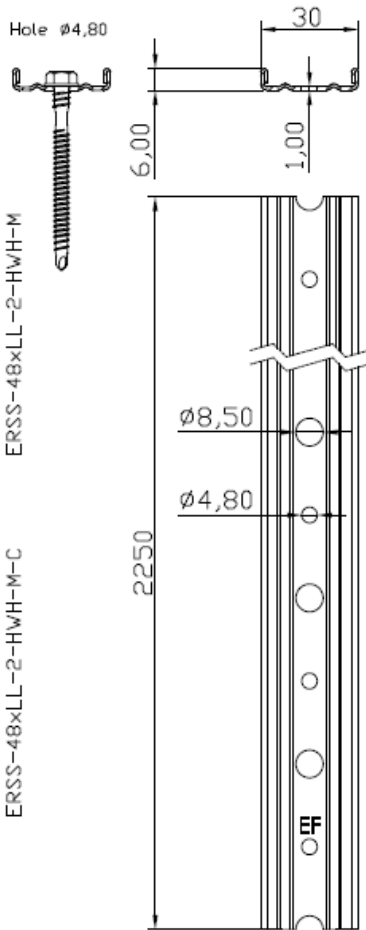
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
 EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.3**

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

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

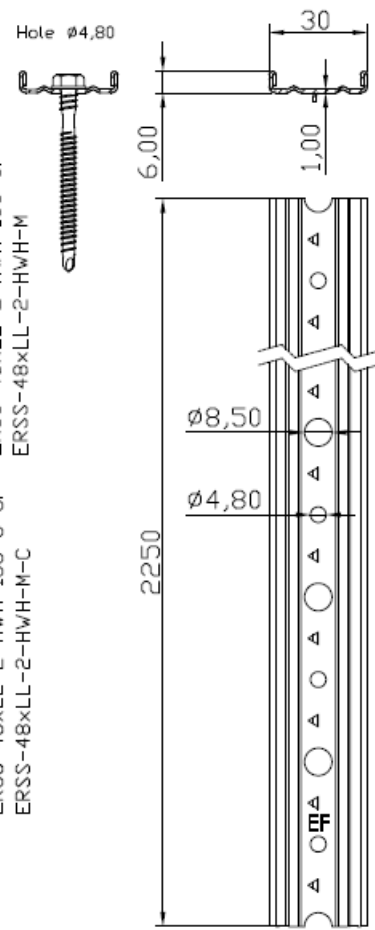
EDS-BZT-48xLL or  
ERSS-48xLL-2-HWH-15C or  
ERSS-48xLL-2-HWH-M



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

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

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



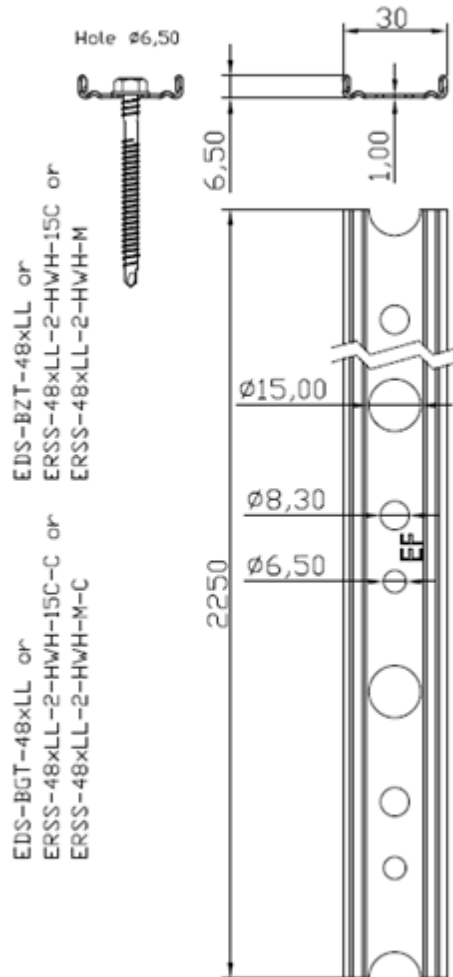
**Eurofast Flat Roof Fasteners**

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.4**



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



**Eurofast Flat Roof Fasteners**

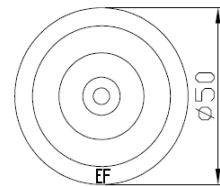
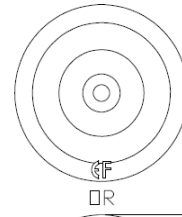
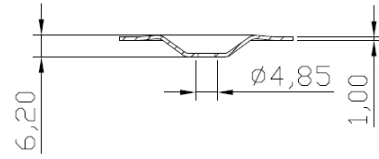
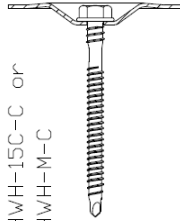
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
 EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.5**

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

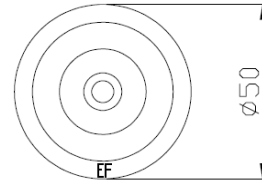
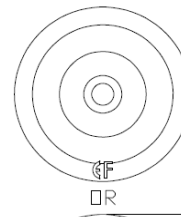
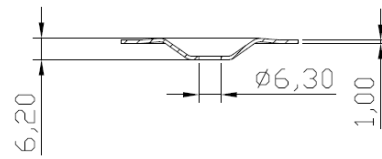
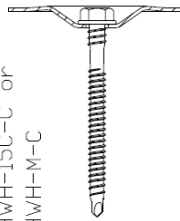
EDS-BGT-48xLL or  
ERSS-48xLL-2-HWH-15C-C or  
ERSS-48xLL-2-HWH-M-C



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

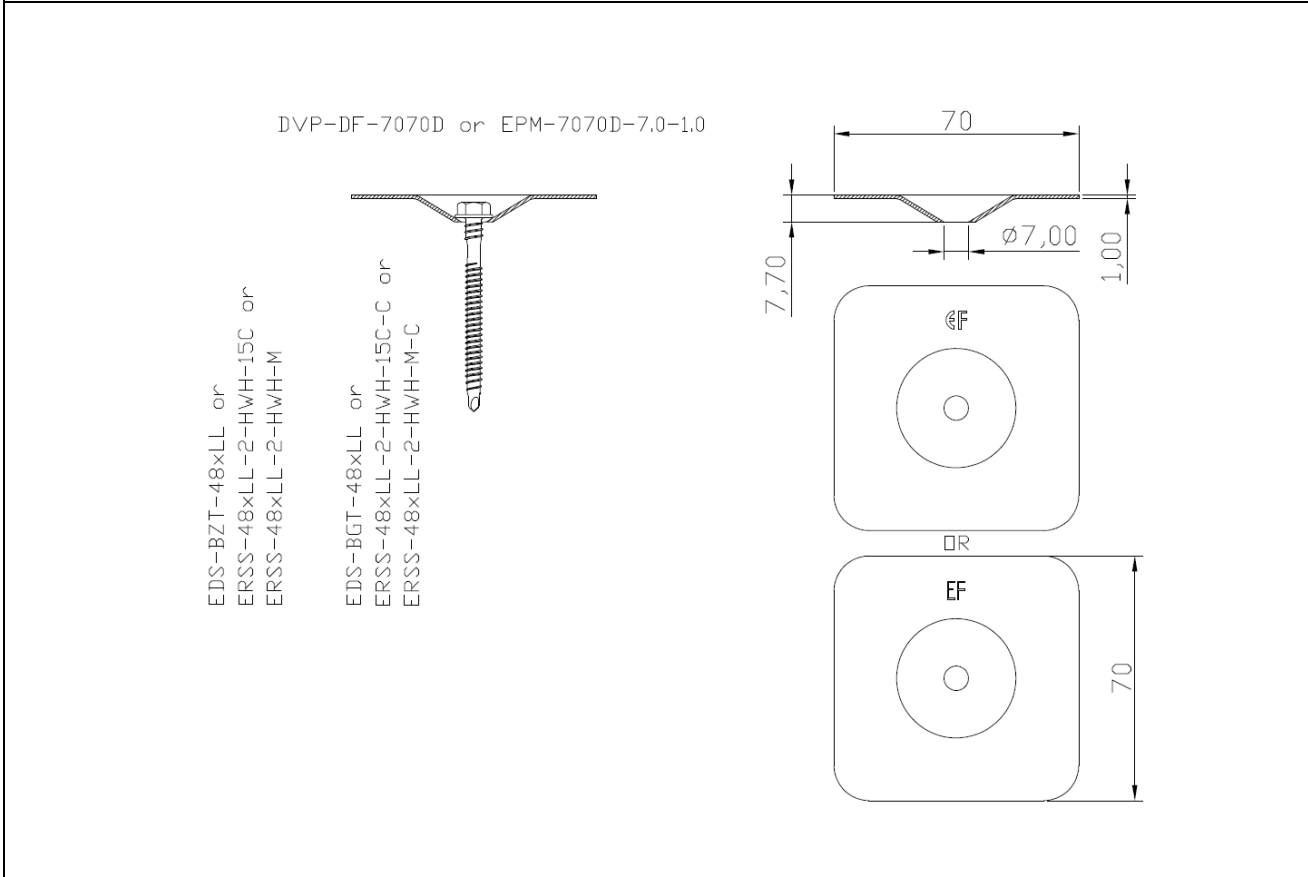
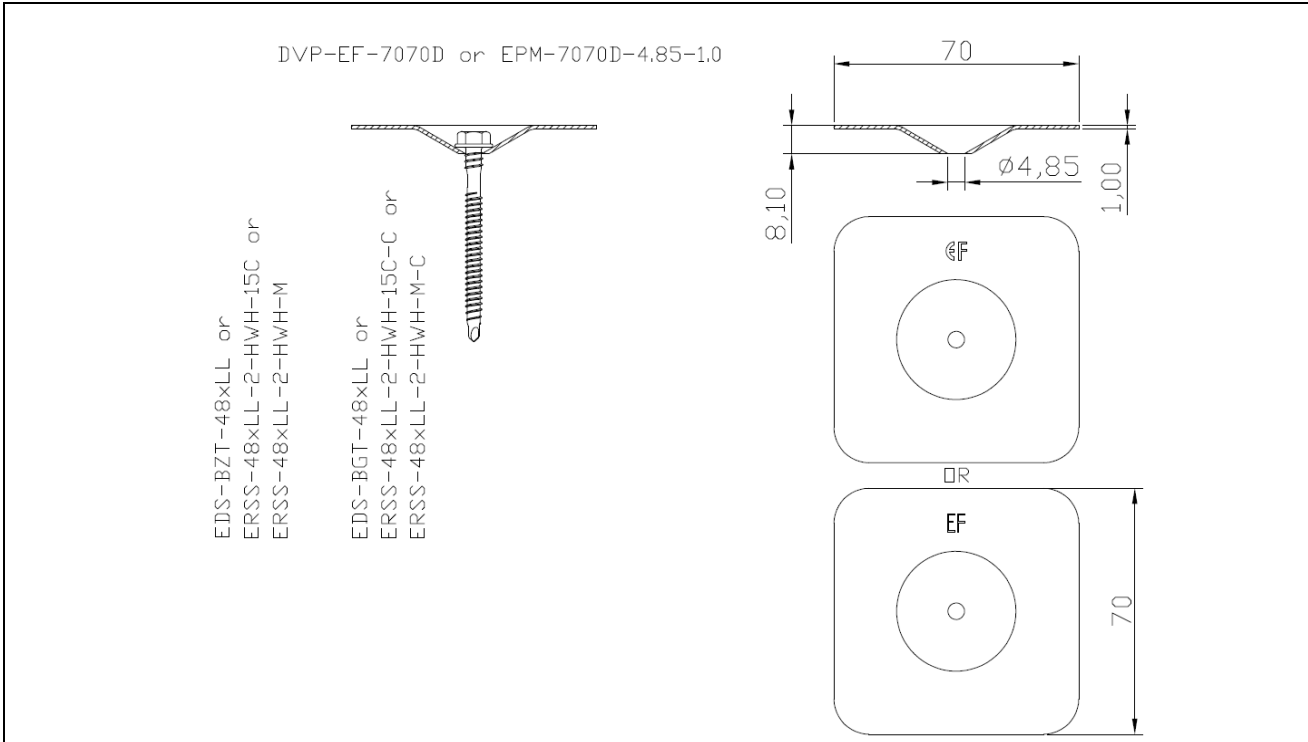
EDS-BGT-48xLL or  
ERSS-48xLL-2-HWH-15C-C or  
ERSS-48xLL-2-HWH-M-C



**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**

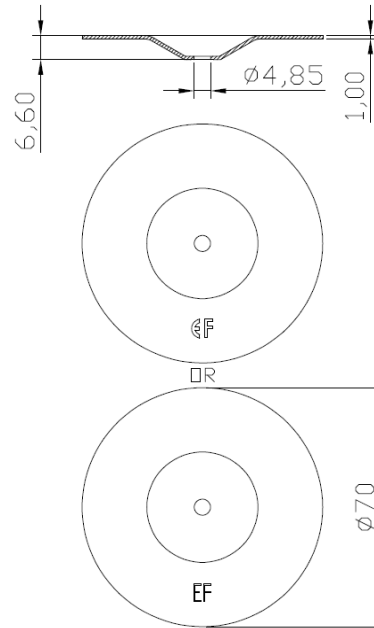
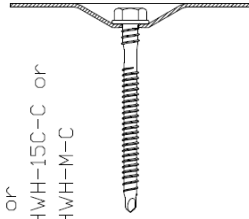


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex G.7</b>
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M) EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)	

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

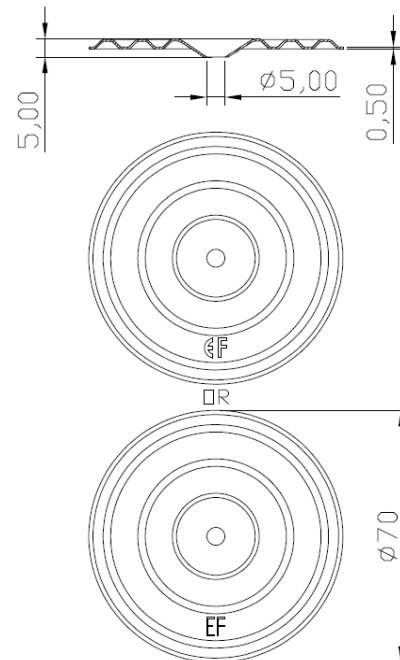
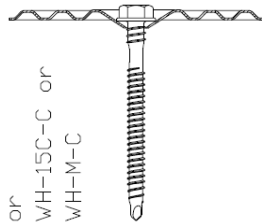
EDS-BGT-48xLL or  
ERSS-48xLL-2-HWH-15C-C or  
ERSS-48xLL-2-HWH-M-C



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**

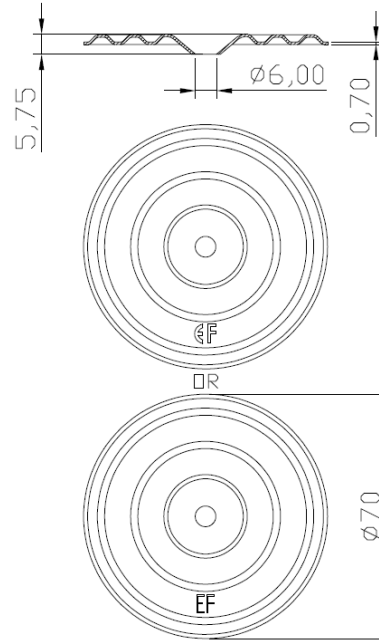
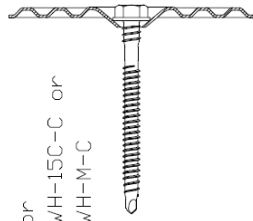
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.8**

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

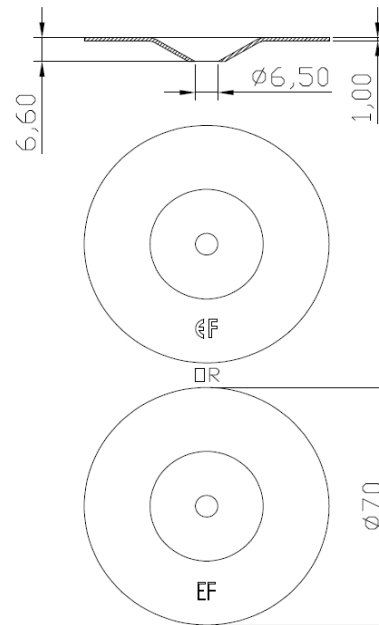
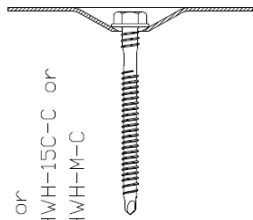
EDS-BGT-48xLL or  
ERSS-48xLL-2-HWH-15C-C or  
ERSS-48xLL-2-HWH-M-C



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**

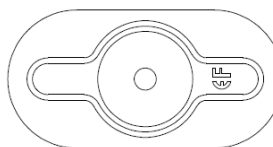
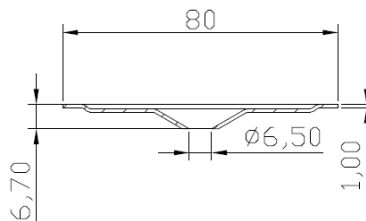
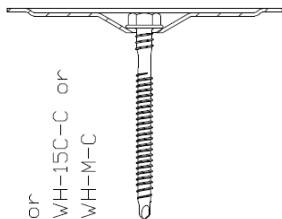
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.9**

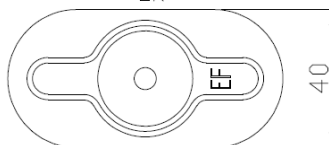
DVP-EF-8040D or EPM-8040D-6.5-1.0

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



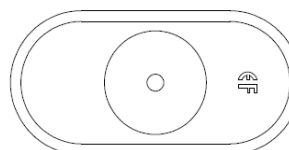
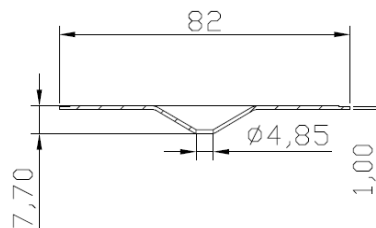
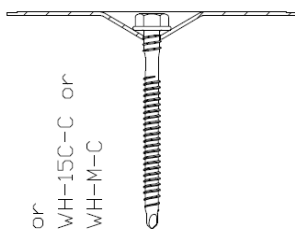
OR



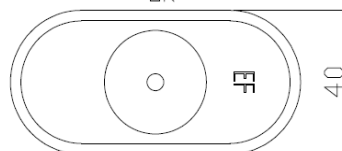
DVP-EF-8240D or EPM-8240D-4.85-1.0

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



OR



**Eurofast Flat Roof Fasteners**

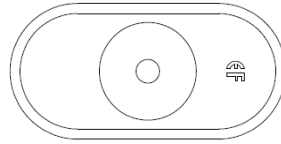
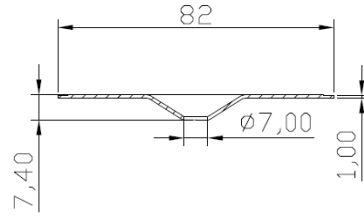
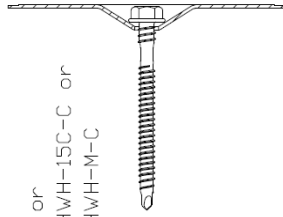
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.10**

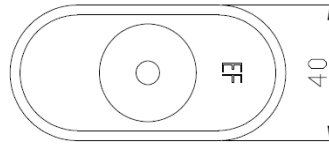
DVP-DF-8240D or EPM-8240D-7.00-1.0

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



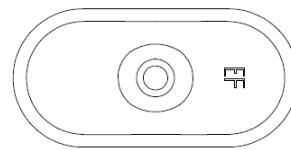
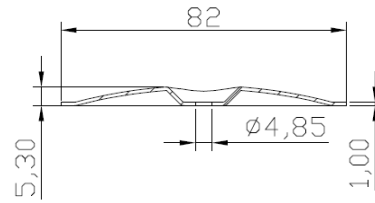
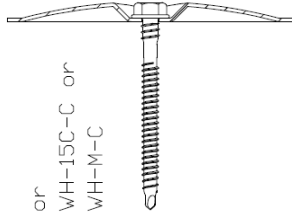
DR



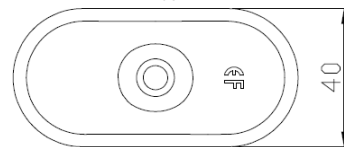
DVP-DF-8240XH or EPM-8240XH-4.85-1.0

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



DR



**Eurofast Flat Roof Fasteners**

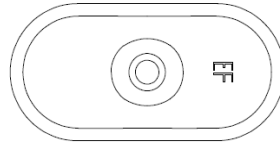
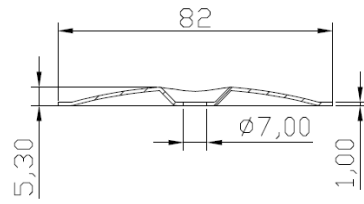
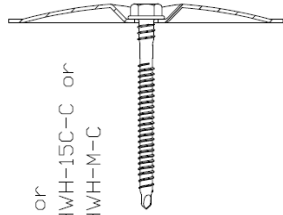
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.11**

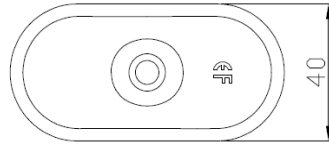
DVP-DF-8240XH or EPM-8240XH-7.0-1.0

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



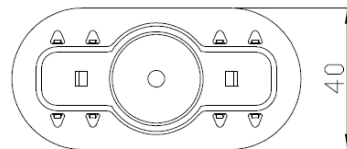
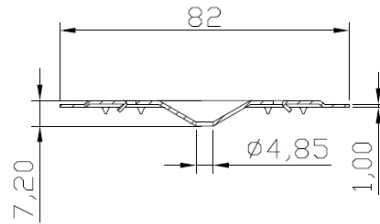
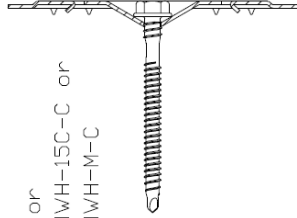
DR



DVP-EFB-8240D or EPM-B-8240D-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



40

**Eurofast Flat Roof Fasteners**

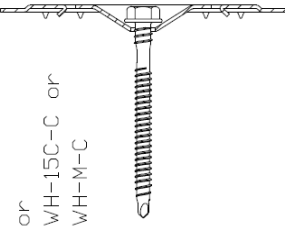
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.12**

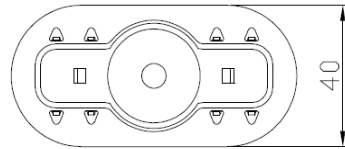
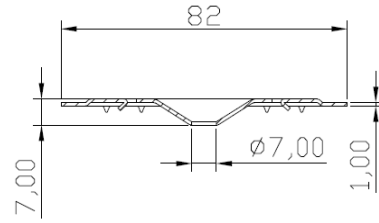


DVP-DFB-8240D or EPM-B-8240D-7.0-1.0

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

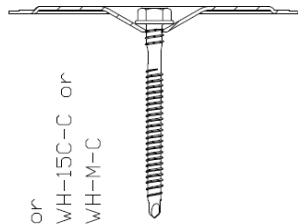


EDS-BGT-48xLL or  
ERSS-48xLL-2-HWH-15C-C or  
ERSS-48xLL-2-HWH-M-C

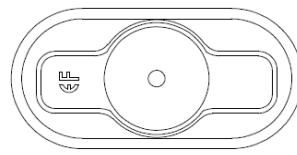
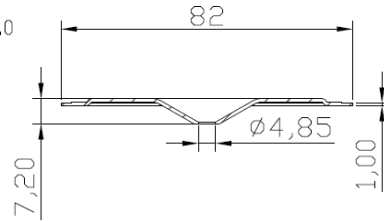


DVP-EFZK-8240D or EPM-ZK-8240D-4.85-1.0

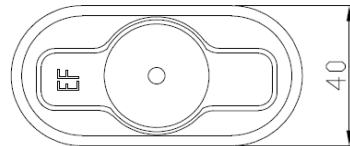
EDS-BZT-48xLL or  
ERSS-48xLL-2-HWH-15C or  
ERSS-48xLL-2-HWH-M



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



OR



**Eurofast Flat Roof Fasteners**

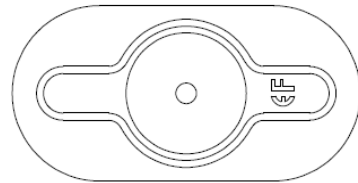
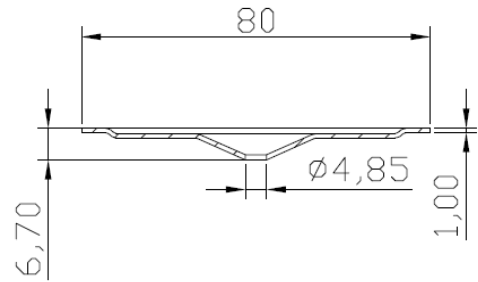
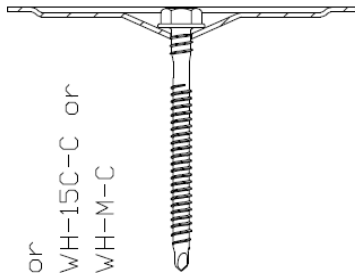
EDS-BZT-48xLL (ERSS-48xLL-2-HWH-15C or ERSS-48xLL-2-HWH-M)  
EDS-BGT-48xLL (ERSS-48xLL-2-HWH-15C-C or ERSS-48xLL-2-HWH-M-C)

**Annex G.13**

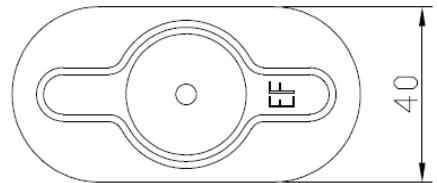
EDS-BZT-48xLL or  
 ERSS-48xLL-2-HWH-15C or  
 ERSS-48xLL-2-HWH-M

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

DVP-EFF-8040D or EPM-8040D-4.85-1.0



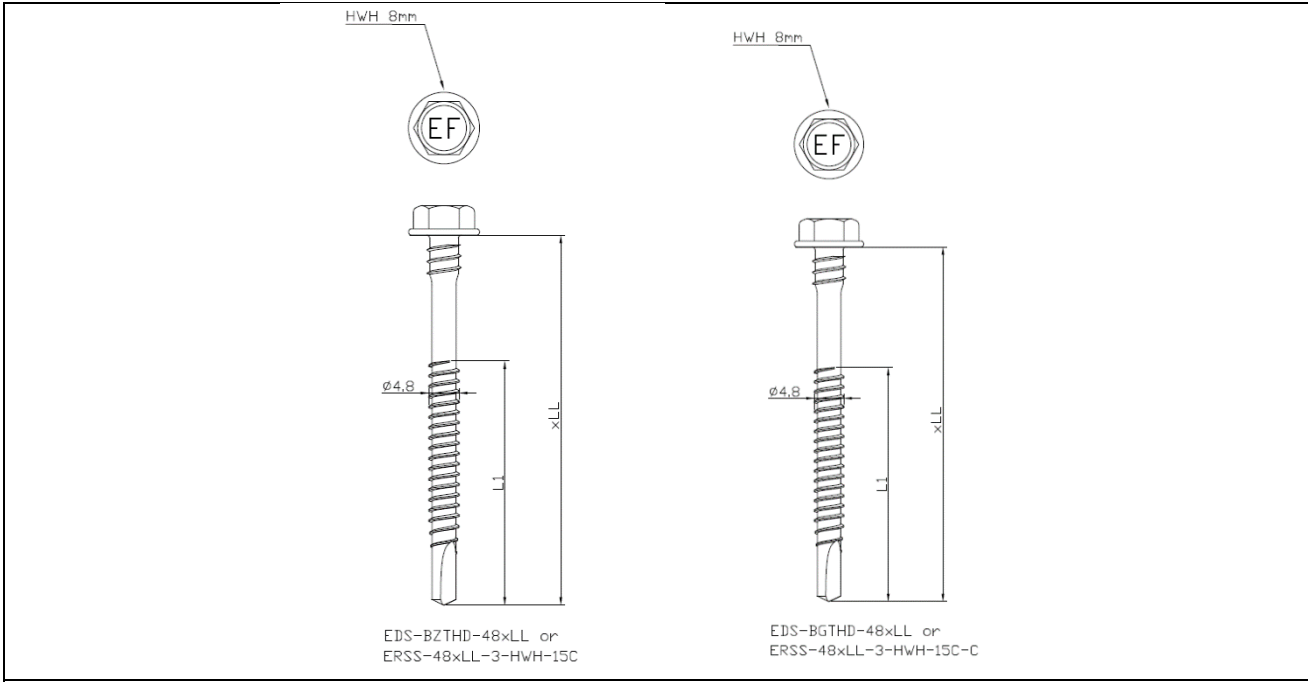
OR



**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.14**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)			
t [mm]	Steel S320GD*		
	1,00	1,25	1,50
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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex H.1</b>
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C) EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)	

<b>Characteristic Values of Axial Pull-Through* Resistance [kN]</b> (according to Figures 4 and 5 of UKAD 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:**

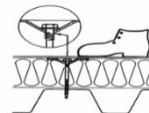
EDF-BAR F (ETM-2250-30-4.8-8.5-1.0)  
EDF-BAR FB (ETM-B-2250-30-4.8-8.5-1.0)  
EDF-BAR F-TUBE (ETM-T-2250-30-6.5-8.3-15.0-1.0)

**Substrate:**

Steel S280 EN 10346  
Steel S320 EN 10346

**Installation data:**

Max. drilling capacity in steel substrate: 2x1,50 mm  
HUKAD type: Hex Washer HUKAD 8 mm  
Screws EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C): Collated screws for use with **DEK-FIX** tool  
Fixing in steel substrate: Minimum 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

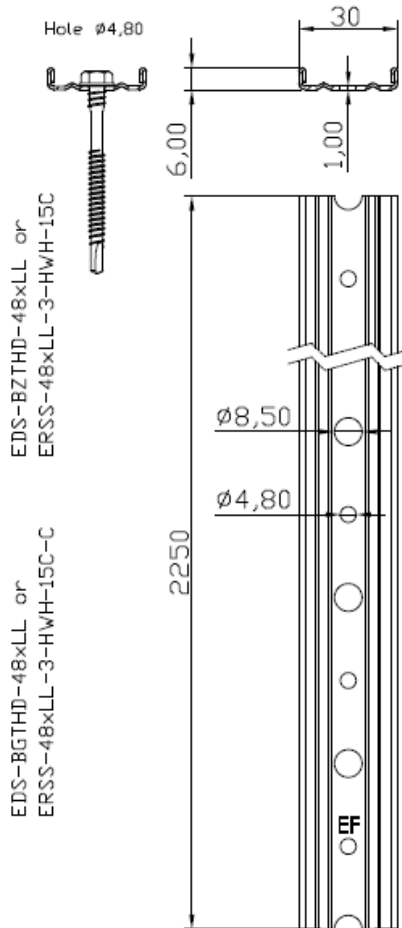


**Eurofast Flat Roof Fasteners**

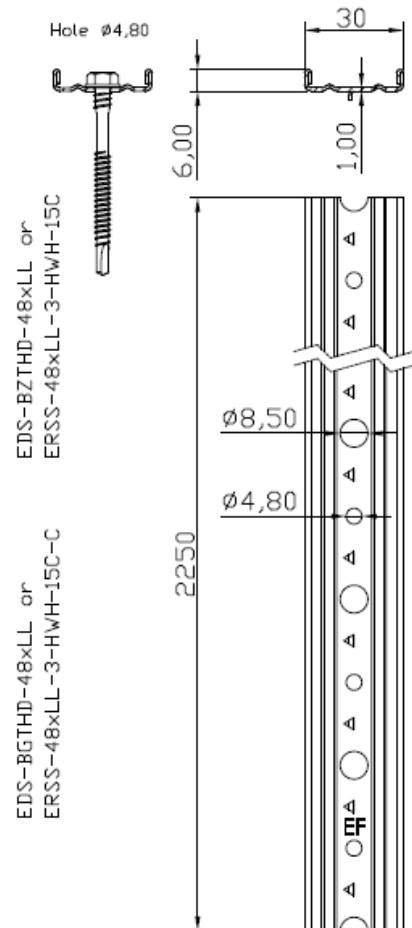
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)  
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

**Annex H.2**

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

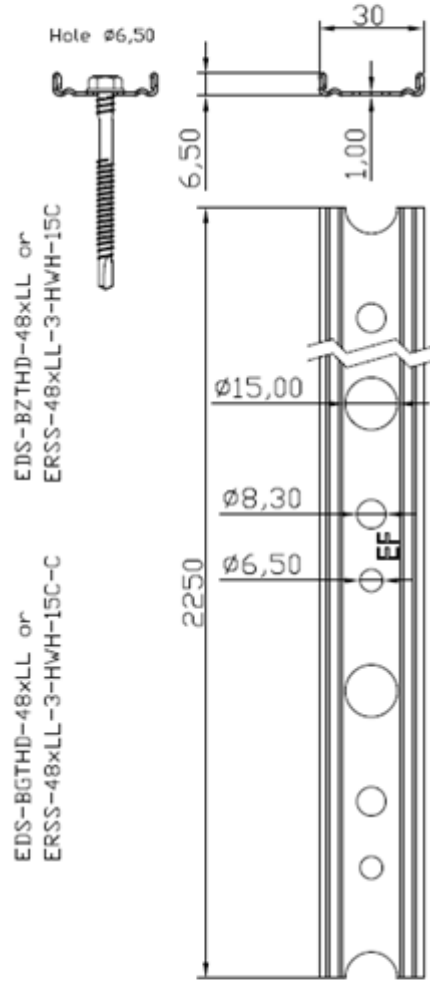


**Eurofast Flat Roof Fasteners**

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

**Annex H.3**

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



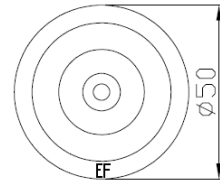
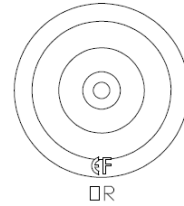
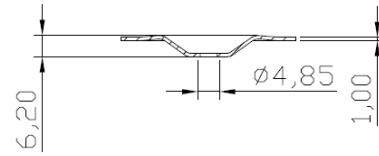
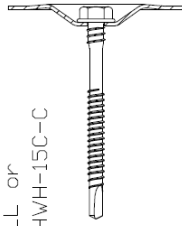
**Eurofast Flat Roof Fasteners**

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

**Annex H.4**

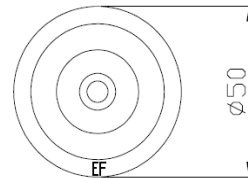
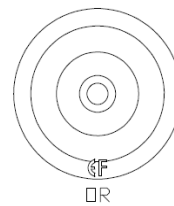
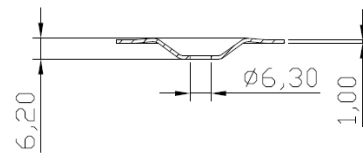
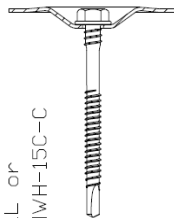
DVP-EF-5010DFR or EPM-50D-4.85-1.0

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



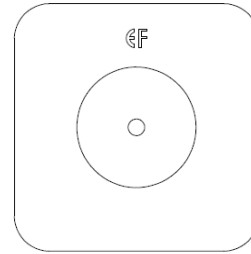
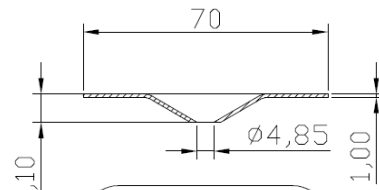
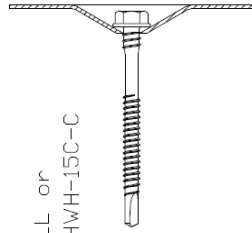
**Eurofast Flat Roof Fasteners**

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

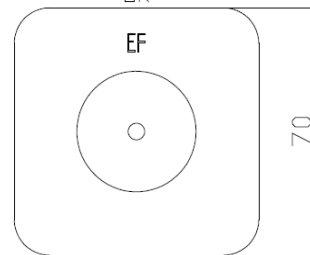
**Annex H.5**

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

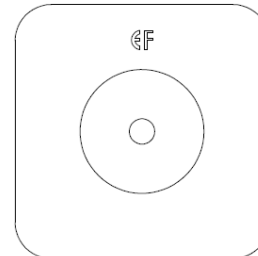
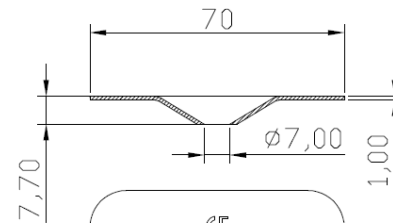
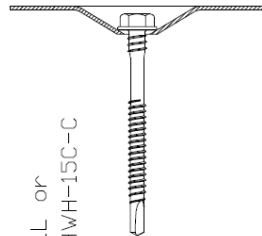


DR

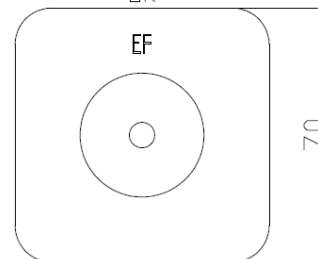


DVP-DF-7070D or EPM-7070D-7.0-1.0

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



DR



**Eurofast Flat Roof Fasteners**

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

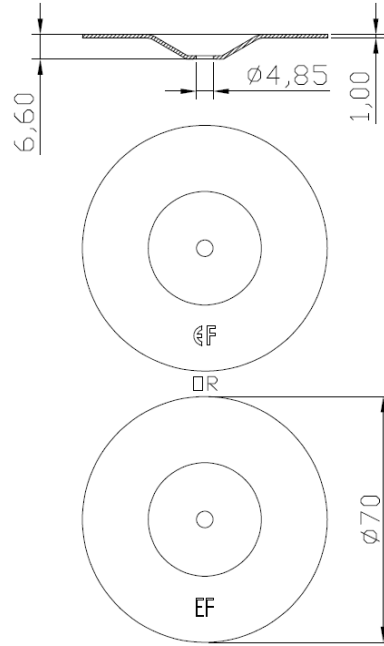
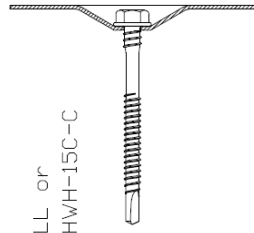
**Annex H.6**



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

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

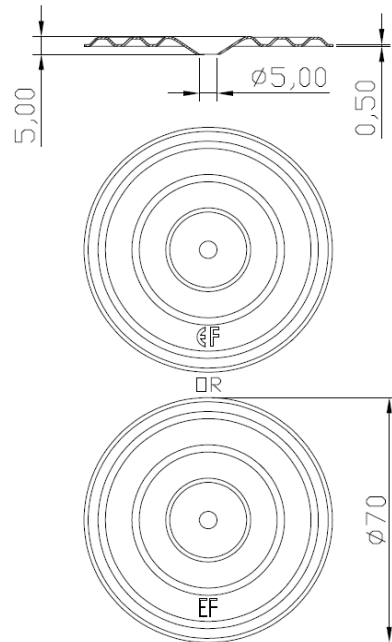
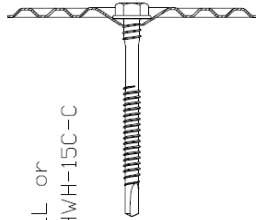
EDS-BGTHD-48xLL or  
ERSS-48xLL-3-HWH-15C-C



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**

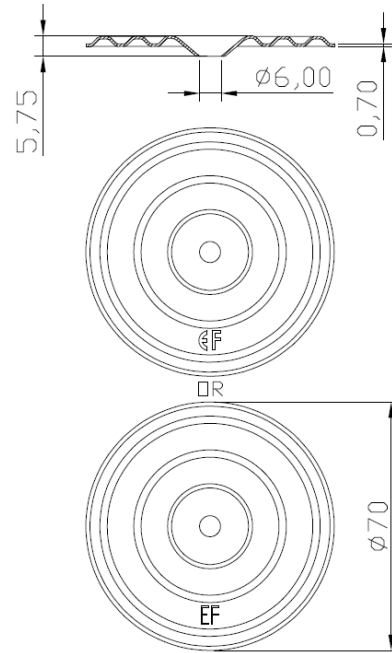
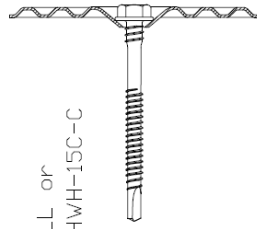
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)  
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

**Annex H.7**

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

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

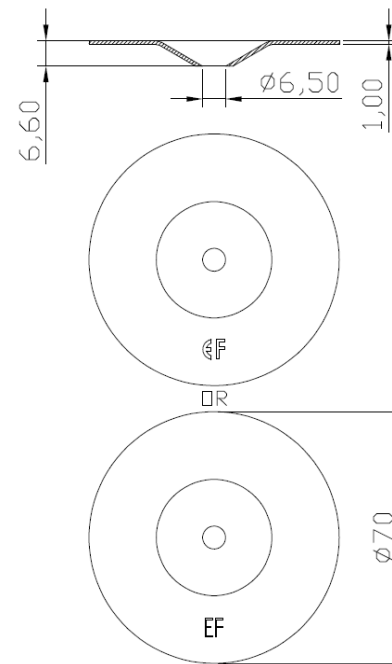
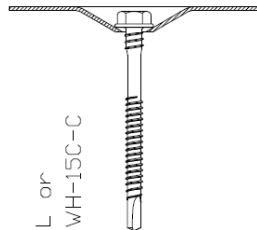
EDS-BGTHD-48xLL or  
ERSS-48xLL-3-HWH-15C-C



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



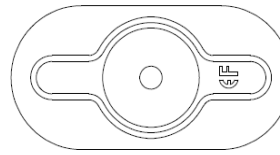
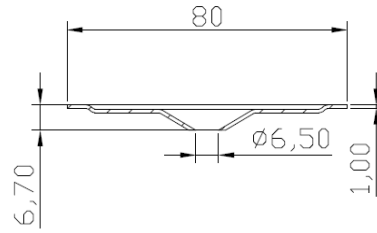
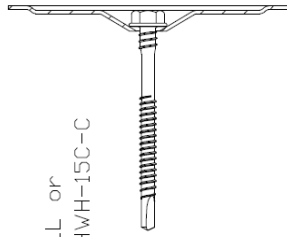
**Eurofast Flat Roof Fasteners**

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

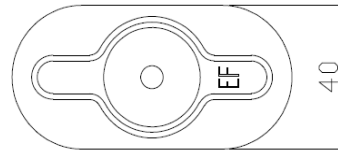
**Annex H.8**

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

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

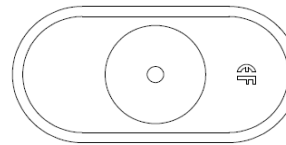
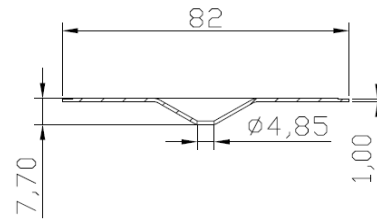
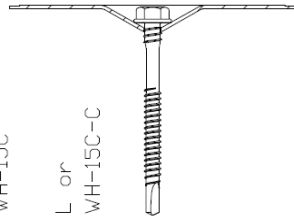


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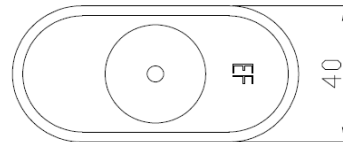


DVP-EF-8240D or EPM-8240D-4.85-1.0

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



OR



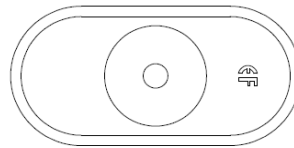
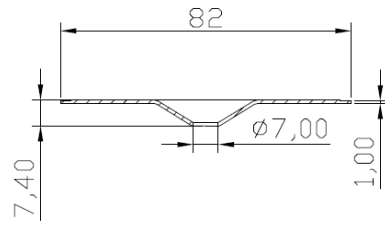
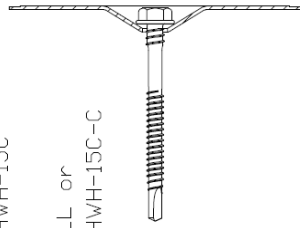
**Eurofast Flat Roof Fasteners**

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

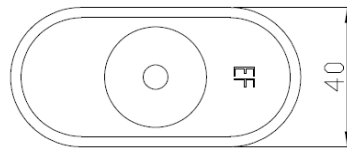
**Annex H.9**

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

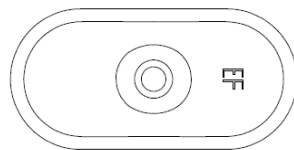
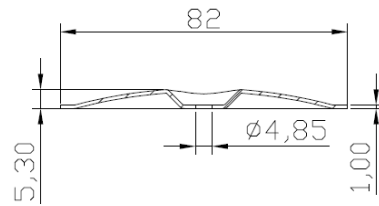
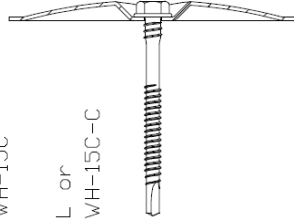


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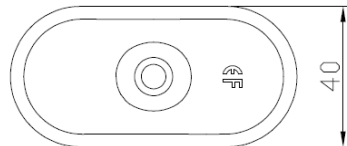


DVP-DF-8240XH or EPM-8240XH-4.85-1.0

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



DR



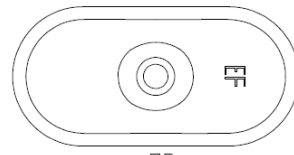
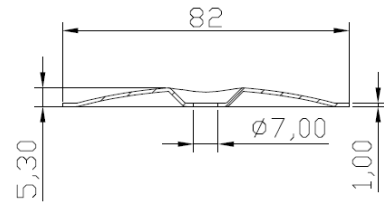
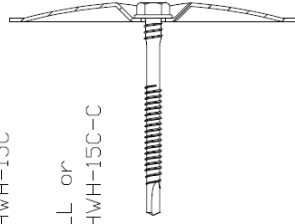
**Eurofast Flat Roof Fasteners**

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

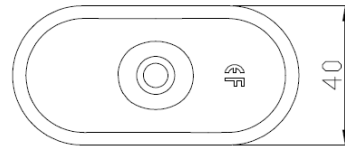
**Annex H.10**

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

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

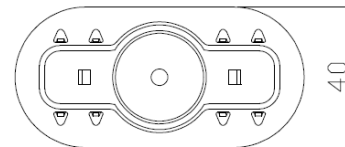
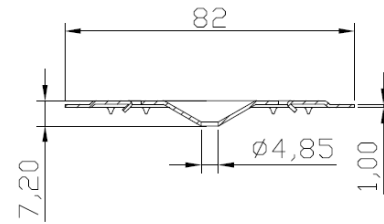
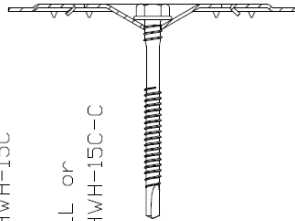


OR



DVP-EFB-8240D or EPM-B-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**

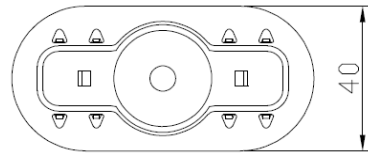
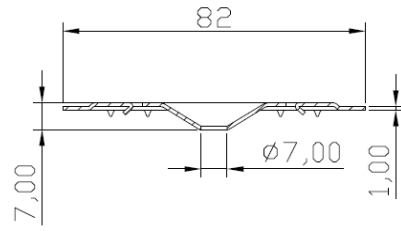
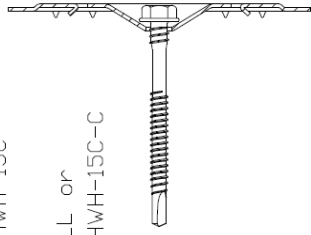
EDS-BZTHD-48xLL (ERSS-48xLL-3-HWH-15C)  
EDS-BGTHD-48xLL (ERSS-48xLL-3-HWH-15C-C)

**Annex H.11**

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

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

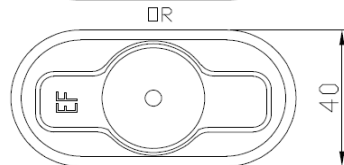
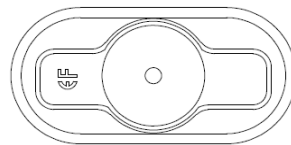
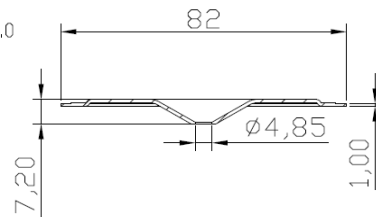
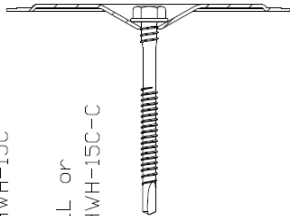
EDS-BGTHD-48xLL or  
ERSS-48xLL-3-HWH-15C-C



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



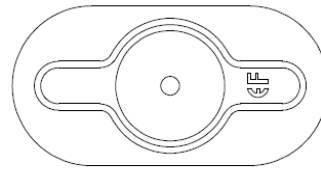
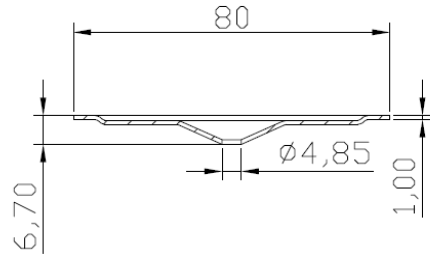
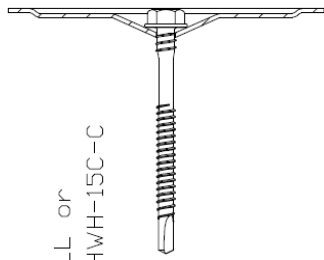
**Eurofast Flat Roof Fasteners**

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

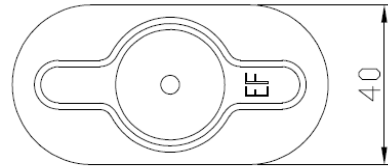
**Annex H.12**

DVP-EFF-8040D or EPM-8040D-4.85-1.0

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



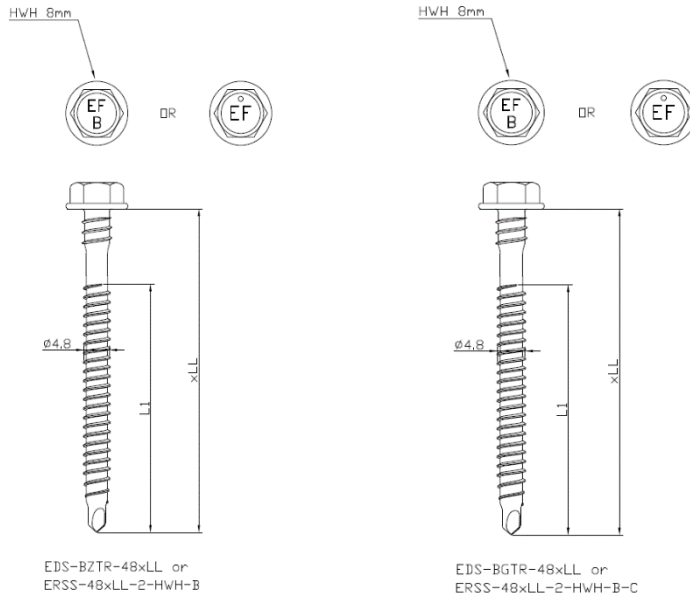
OR



**Eurofast Flat Roof Fasteners**

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

**Annex H.13**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figure 3 of UKAD 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)

### Annex I.1



<b>Characteristic Values of Axial Pull-Through* Resistance [kN]</b> (according to Figures 4 and 5 of UKAD 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

<b>Characteristic Values of Axial Pull-Through* Resistance [kN]</b> (according to Figures 4 and 5 of UKAD 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)

## Annex I.2

**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:**

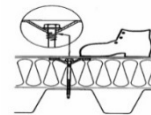
EDF-BAR F	(ETM-2250-30-4.8-8.5-1.0)
EDF-BAR FB	(ETM-B-2250-30-4.8-8.5-1.0)
EDF-BAR F-TUBE	(ETM-T-2250-30-6.5-8.3-15.0-1.0)

**Substrate:**

Steel S280		EN 10346
Steel S320		EN 10346
Aluminium	R <sub>m</sub> ≥ 195 N/mm <sup>2</sup>	EN 485
OSB/3	ρ <sub>min</sub> = 550 kg/m <sup>3</sup>	EN 12369-1
Chipboard	ρ <sub>min</sub> = 600 kg/m <sup>3</sup>	EN 12369-1
Plywood	ρ <sub>min</sub> = 400 kg/m <sup>3</sup>	EN 12369-2
Timber, class ≥ C24	ρ <sub>min</sub> = 350 kg/m <sup>3</sup>	EN 338

**Installation data:**

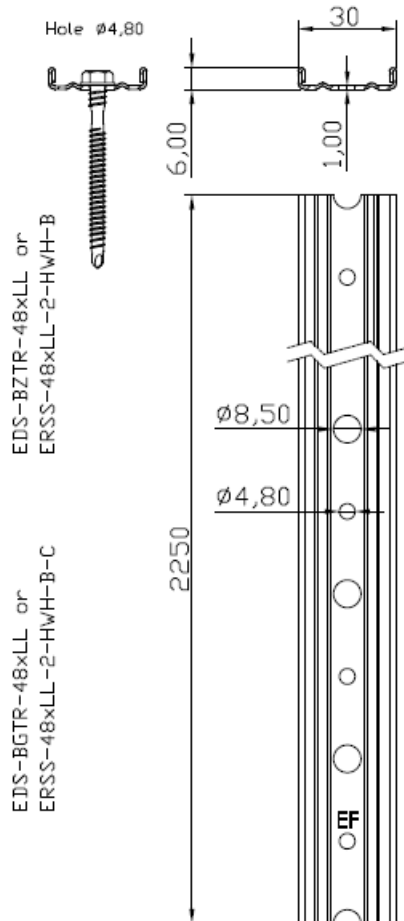
Max. drilling capacity in steel substrate:	2 x 1,25 mm
HUKAD type:	Hex Washer HUKAD 8 mm
Screws EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C):	Collated screws for use with <b>DEK-FIX</b> tool
Fixing in steel substrate:	Minimum 30 mm fixed through the steel sheet
Fixing in aluminium substrate:	Minimum 30 mm fixed 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**

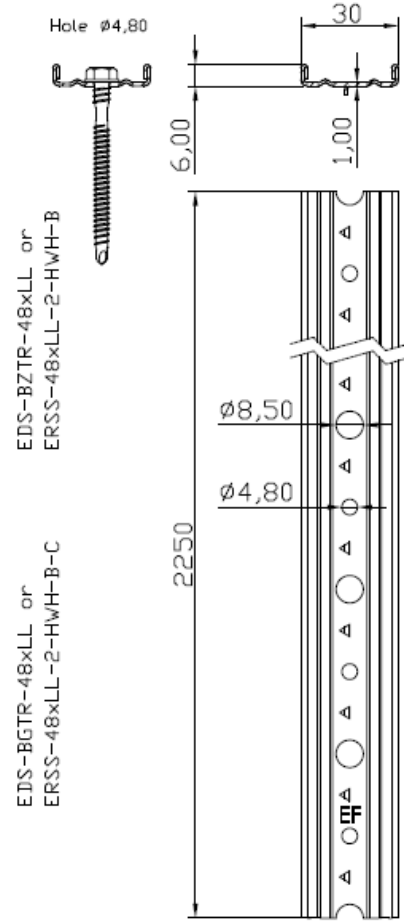
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.3**

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

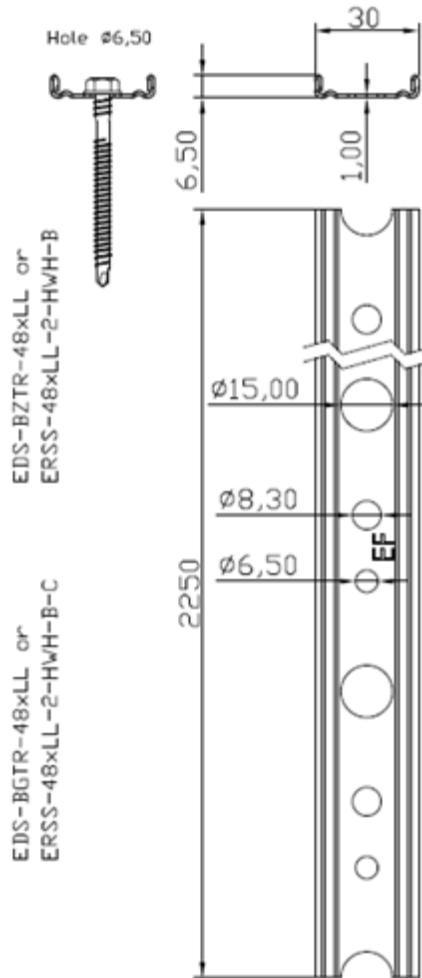


**Eurofast Flat Roof Fasteners**

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

**Annex I.4**

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



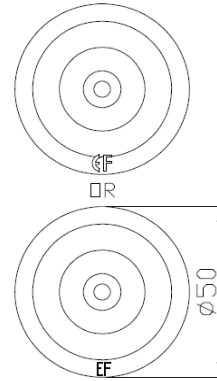
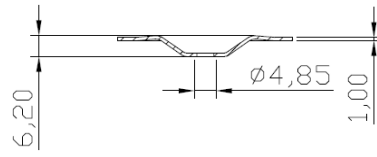
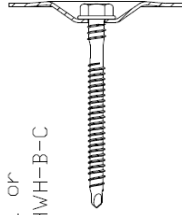
**Eurofast Flat Roof Fasteners**

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

**Annex I.5**

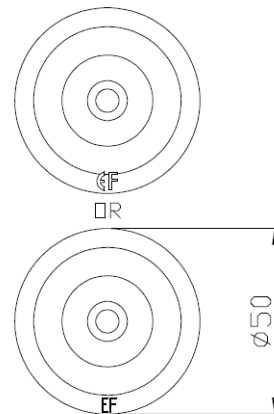
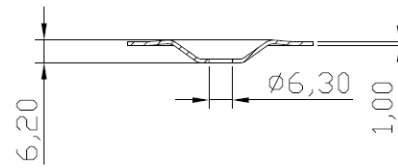
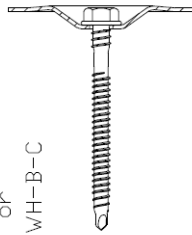
DVP-EF-5010DFR or EPM-50D-4.85-1.0

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



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

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



**Eurofast Flat Roof Fasteners**

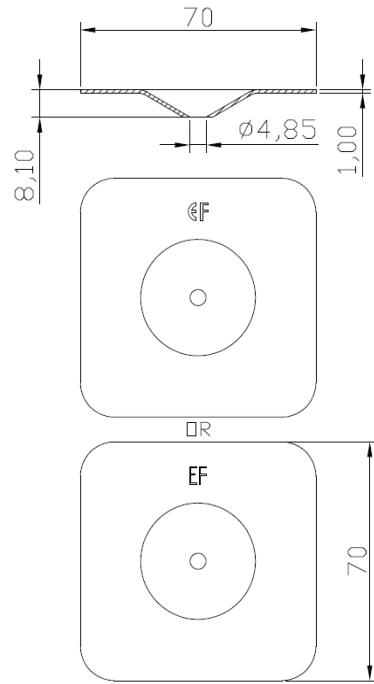
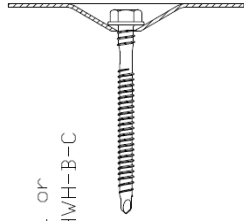
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.6**

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

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

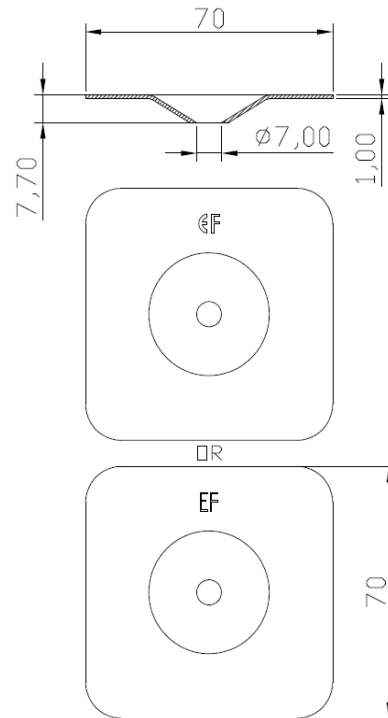
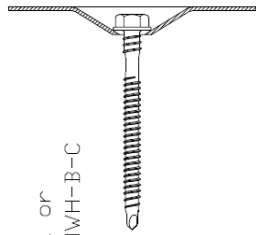
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



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

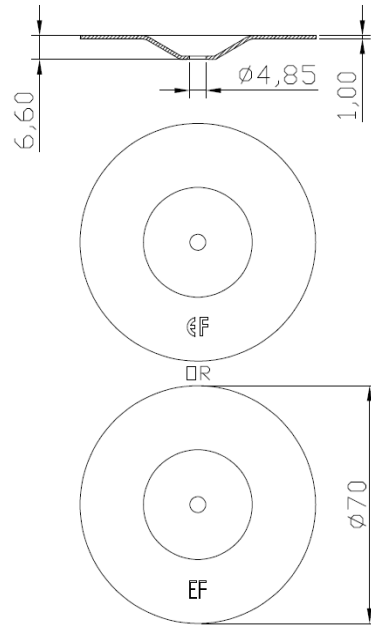
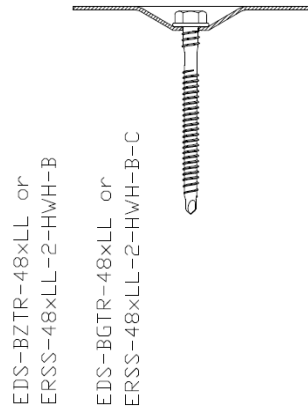


**Eurofast Flat Roof Fasteners**

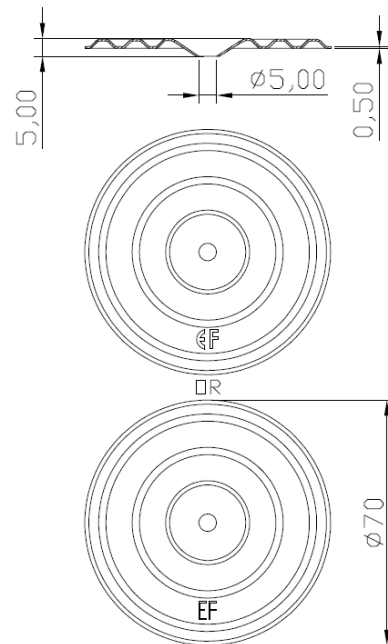
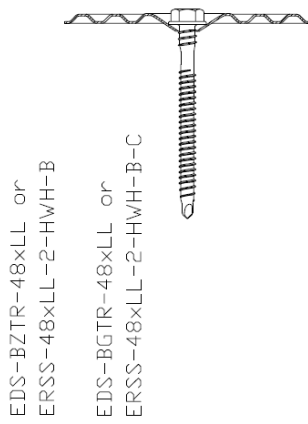
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.7**

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



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

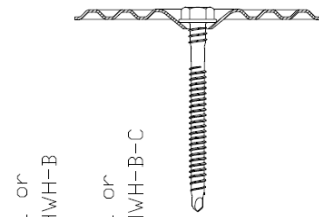


**Eurofast Flat Roof Fasteners**

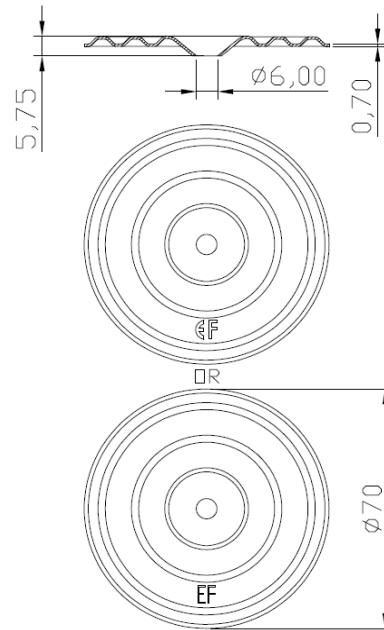
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.8**

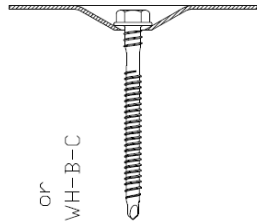
DVP-EF-7007D or EPM-70D-6.0-0.7



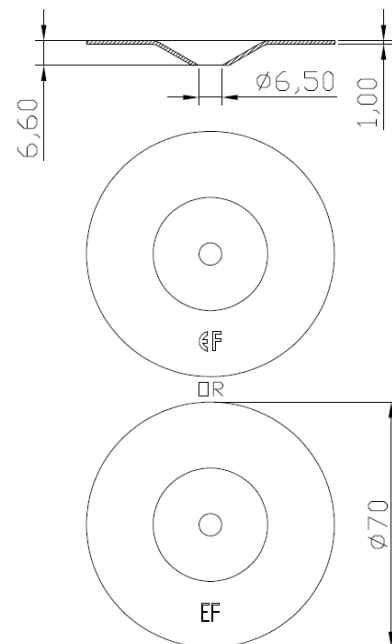
EDS-BZTR-48xLL or  
ERSS-48xLL-2-HWH-B  
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



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



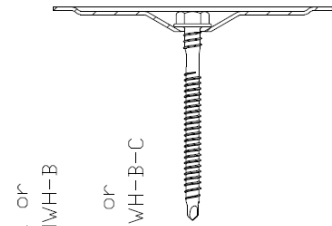
**Eurofast Flat Roof Fasteners**

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

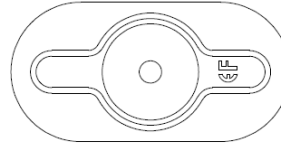
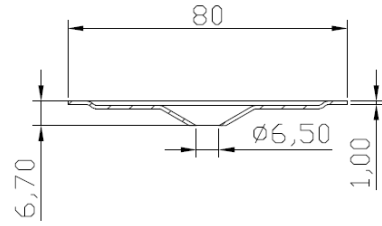
**Annex I.9**



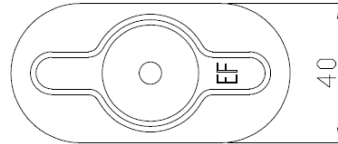
DVP-EF-8040D or EPM-8040D-6.5-1.0



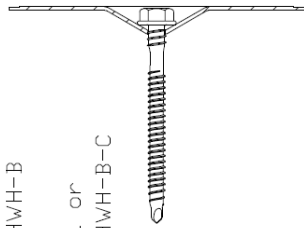
EDS-BZTR-48xLL or  
ERSS-48xLL-2-HWH-B  
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



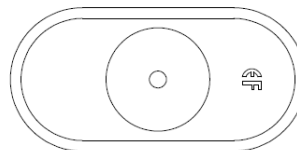
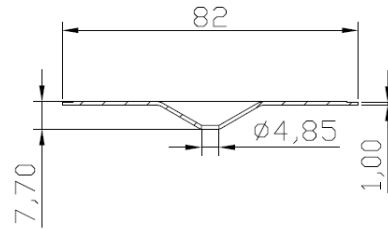
DR



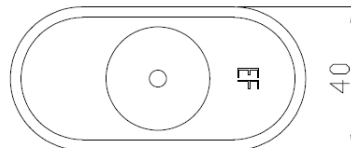
DVP-EF-8240D or EPM-8240D-4.85-1.0



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



DR

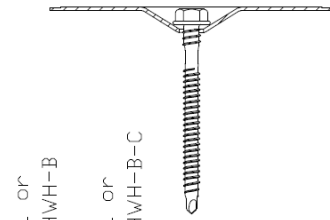


**Eurofast Flat Roof Fasteners**

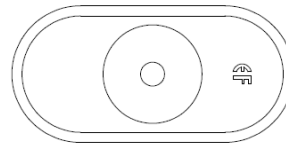
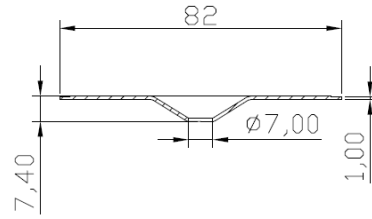
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.10**

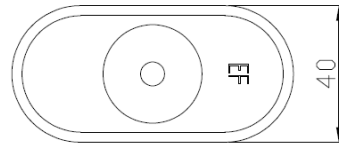
DVP-DF-8240D or EPM-8240D-7.00-1.0



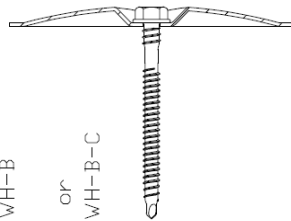
EDS-BZTR-48xLL or  
ERSS-48xLL-2-HWH-B  
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



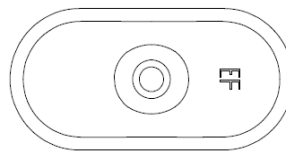
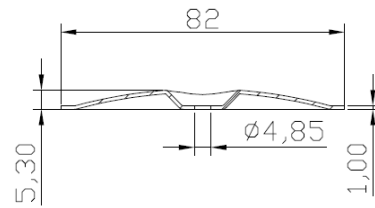
OR



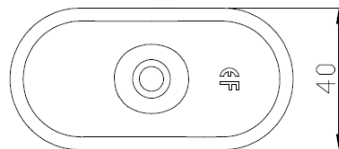
DVP-DF-8240XH or EPM-8240XH-4.85-1.0



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



OR

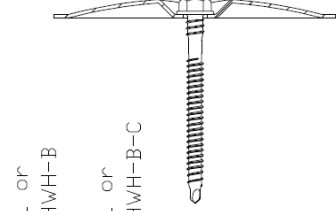


**Eurofast Flat Roof Fasteners**

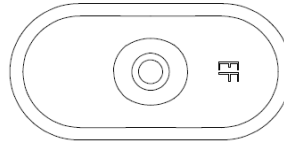
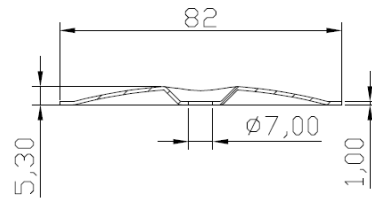
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.11**

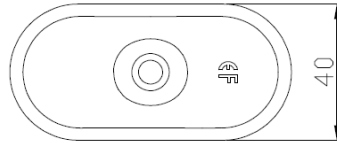
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



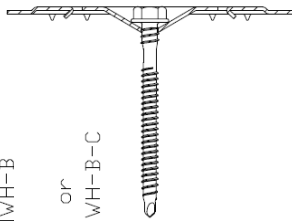
EDS-BZTR-48xLL or  
ERSS-48xLL-2-HWH-B  
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



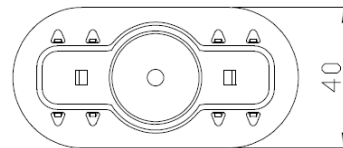
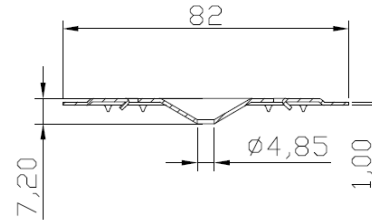
OR



DVP-EFB-8240D or EPM-B-8240D-4.85-1.0



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

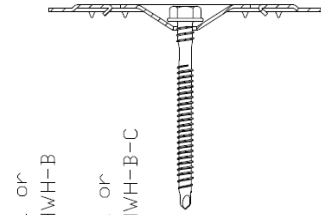


**Eurofast Flat Roof Fasteners**

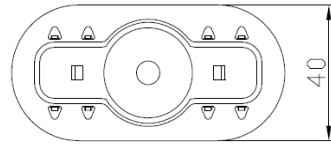
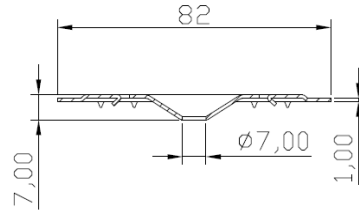
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.12**

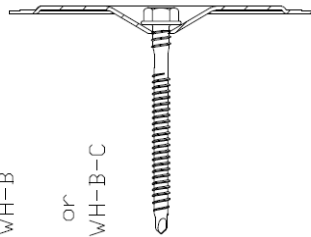
DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



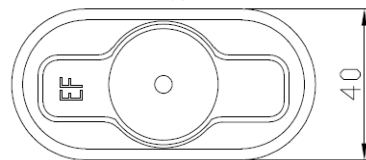
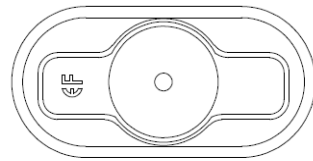
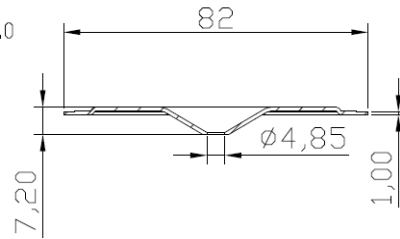
EDS-BZTR-48xLL or  
ERSS-48xLL-2-HWH-B  
EDS-BGTR-48xLL or  
ERSS-48xLL-2-HWH-B-C



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

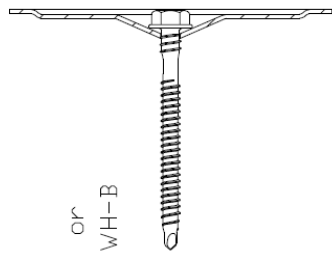


**Eurofast Flat Roof Fasteners**

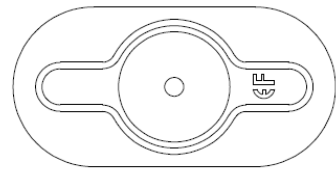
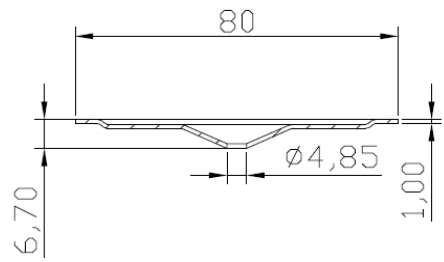
EDS-BZTR-48xLL (ERSS-48xLL-2-HWH-B)  
EDS-BGTR-48xLL (ERSS-48xLL-2-HWH-B-C)

**Annex I.13**

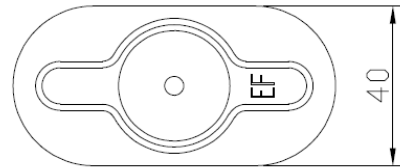
DVP-EFF-8040D or EPM-8040D-4.85-1.0



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



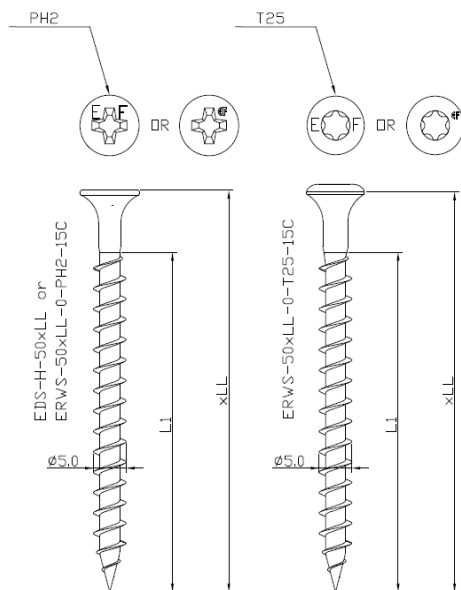
OR



**Eurofast Flat Roof Fasteners**

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

**Annex I.14**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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

### Annex J.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

### Annex J.2

**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:**

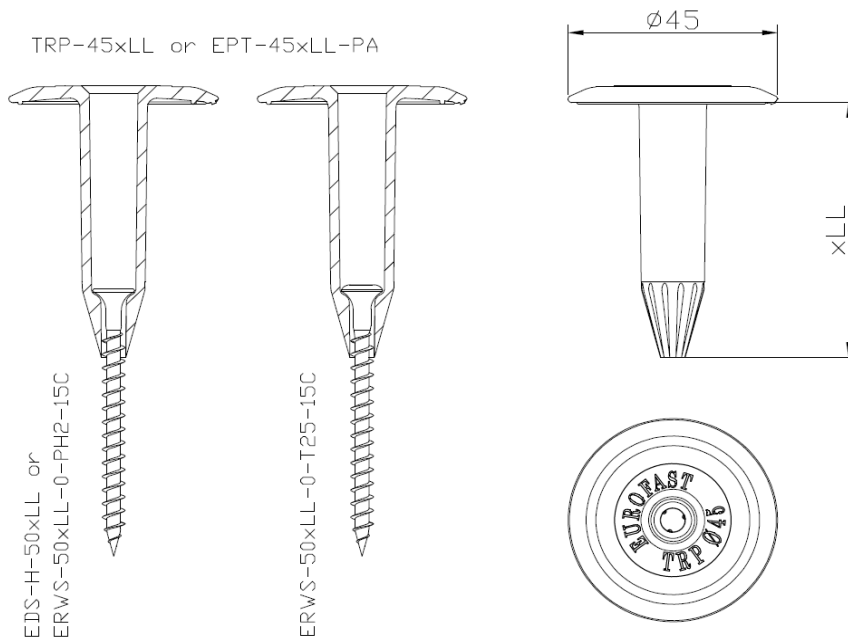
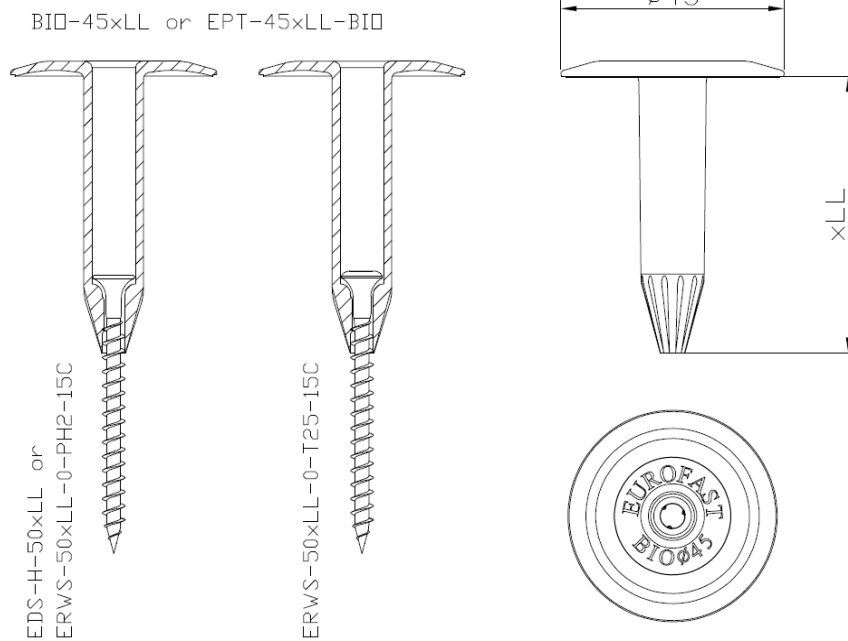
HUKAD type:	Bugle HUKAD / Raised Bugle HUKAD
Recess:	PH2 / TX25
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool:	30 kg
Installation tool speed:	2000 - 2500 rpm

**Eurofast Flat Roof Fasteners**

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

**Annex J.3**

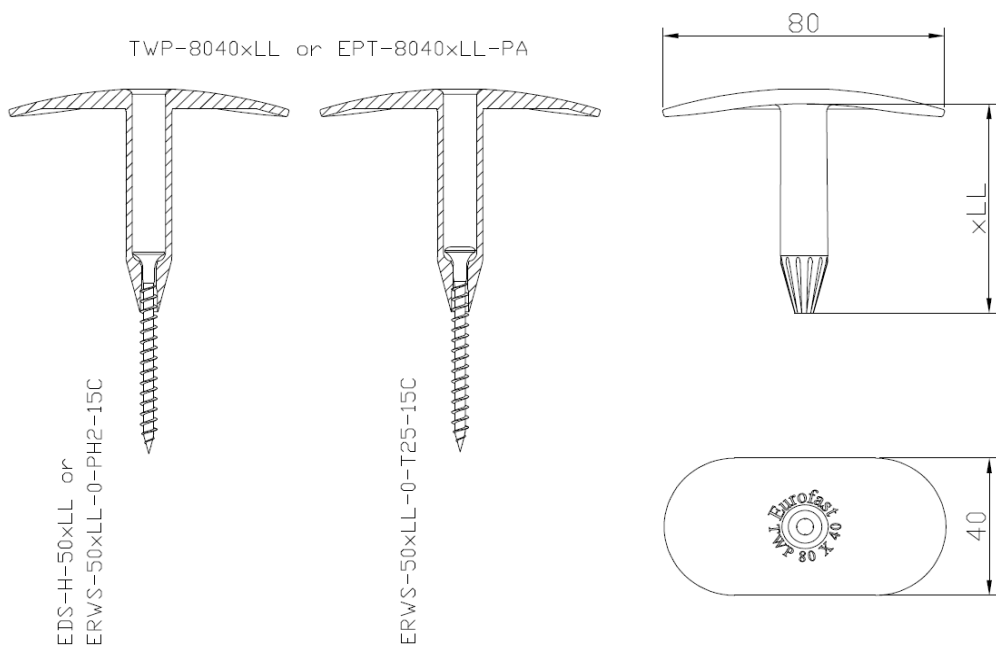
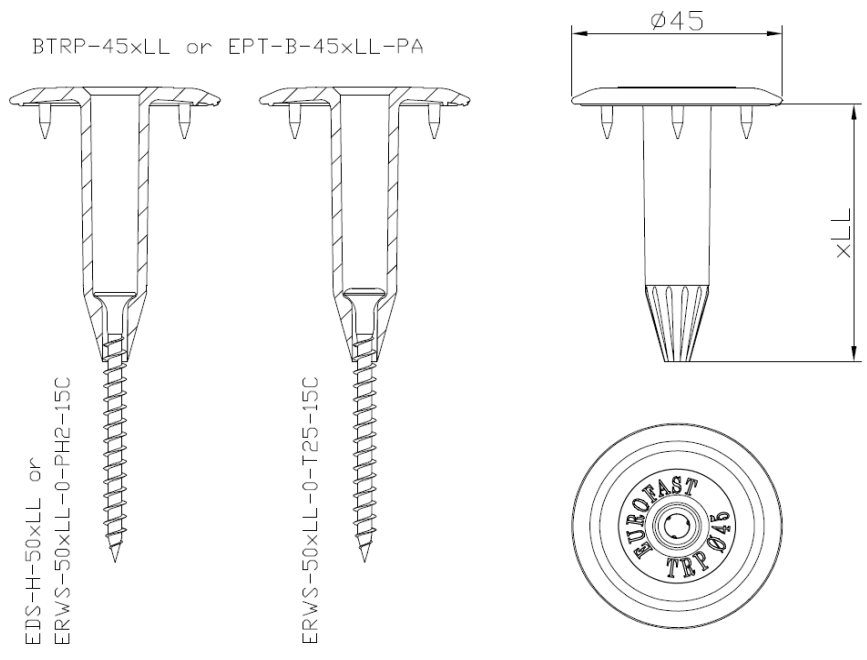




**Eurofast Flat Roof Fasteners**

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

**Annex J.4**

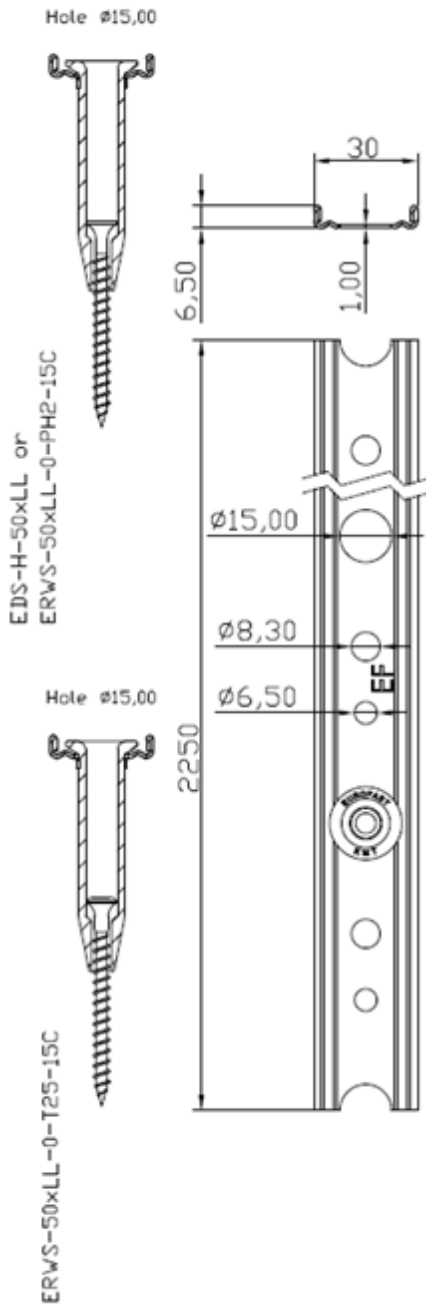


**Eurofast Flat Roof Fasteners**

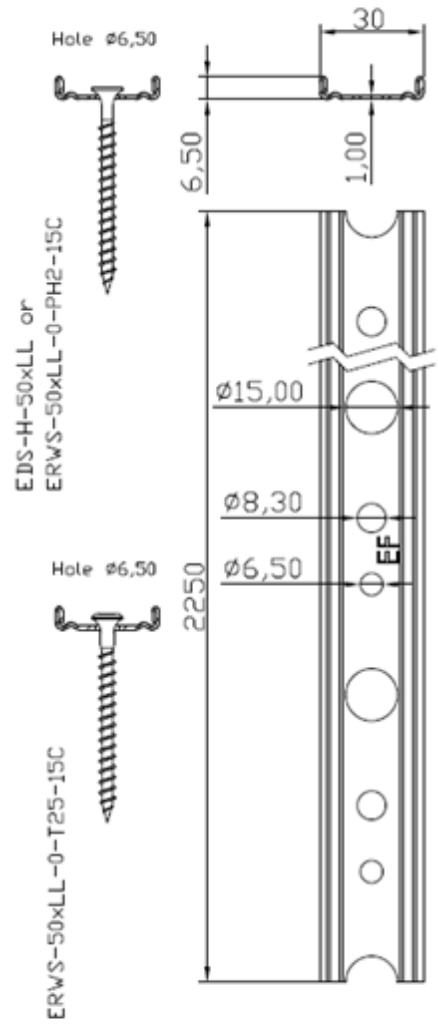
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)  
ERWS-50xLL-0-T25-15C

**Annex J.5**

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

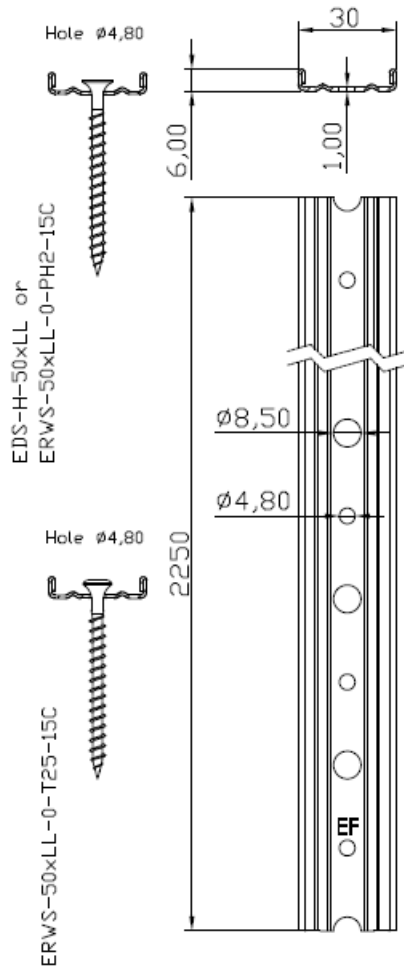


**Eurofast Flat Roof Fasteners**

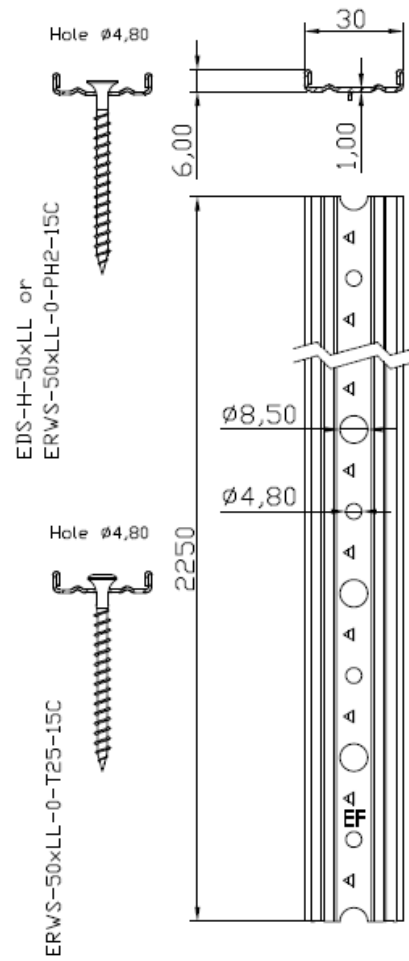
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)  
ERWS-50xLL-0-T25-15C

**Annex J.6**

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



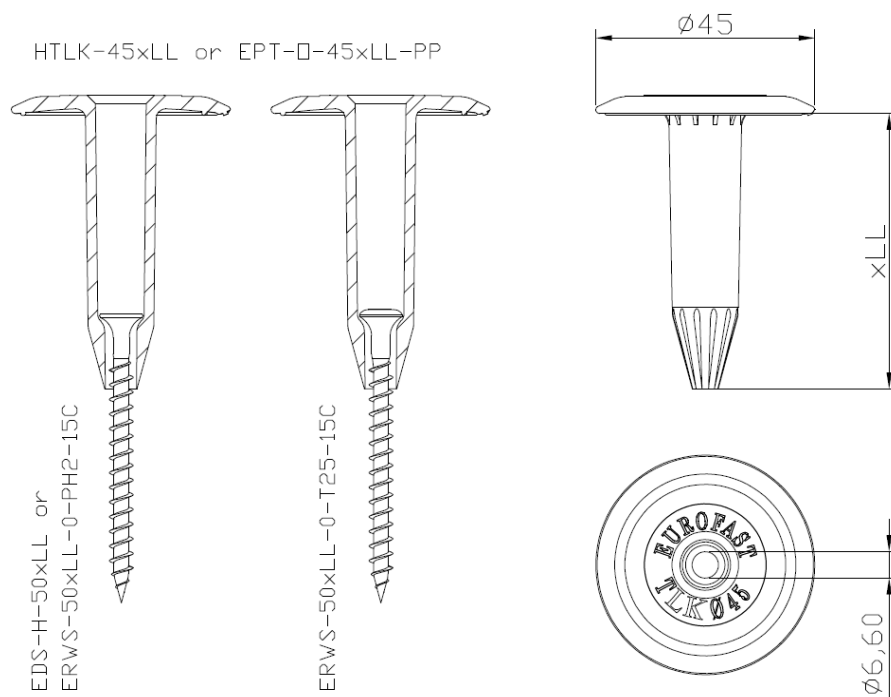
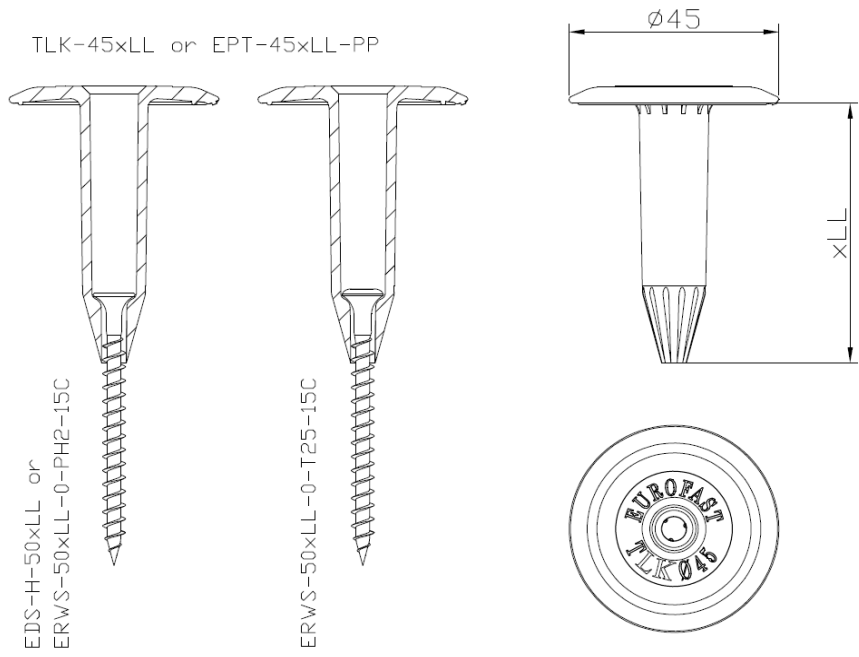
EDF-BAR FB or  
ETM-B-2250-30-4.8-8.5-1.0



**Eurofast Flat Roof Fasteners**

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

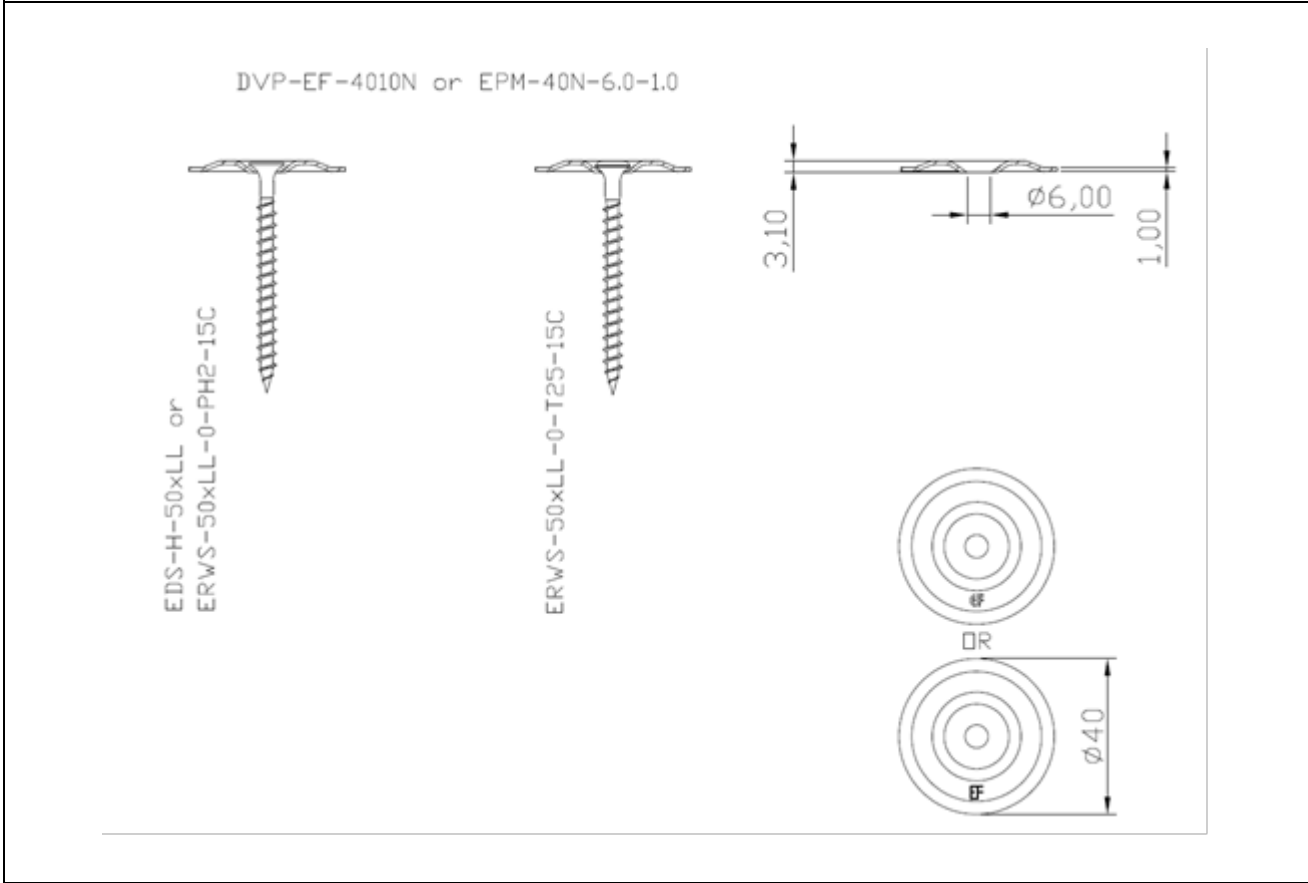
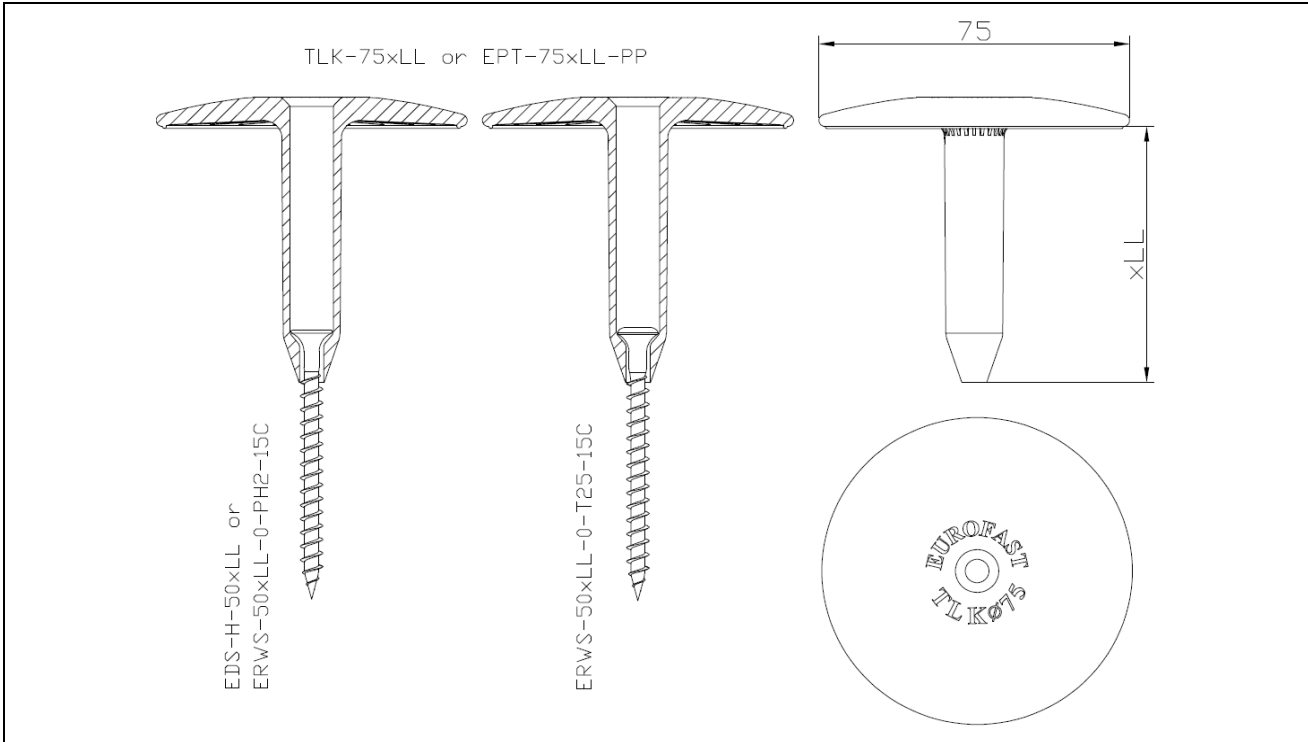
**Annex J.7**



**Eurofast Flat Roof Fasteners**

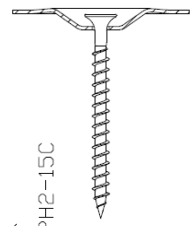
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ERWS-50xLL-0-T25-15C

**Annex J.8**

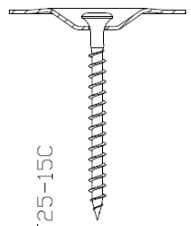


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.9</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

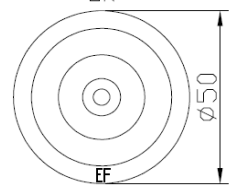
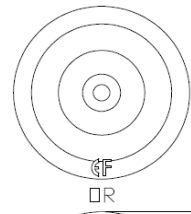
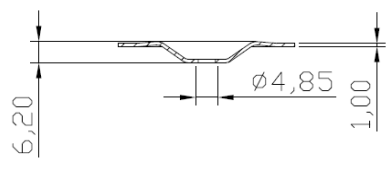
DVP-EF-5010DFR or EPM-50D-4.85-1.0



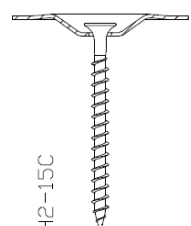
EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



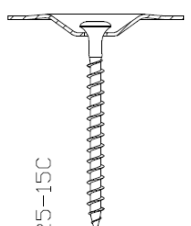
ERWS-50xLL-0-T25-15C



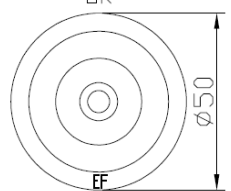
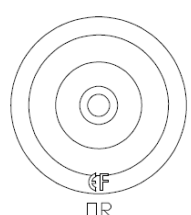
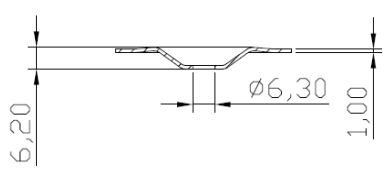
DVP-EF-5010D or EPM-50D-6.3-1.0



EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



ERWS-50xLL-0-T25-15C



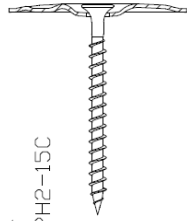
**Eurofast Flat Roof Fasteners**

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

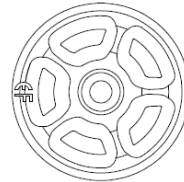
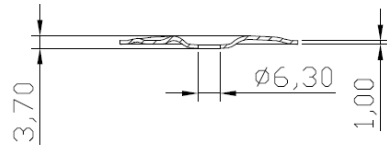
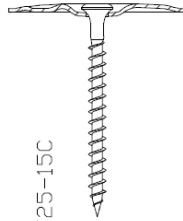
**Annex J.10**

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

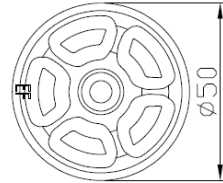
EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



ERWS-50xLL-0-T25-15C

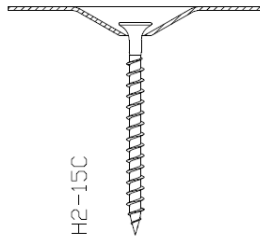


DR

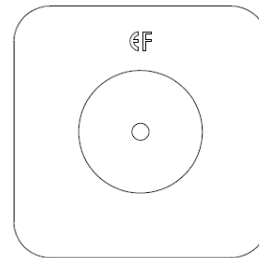
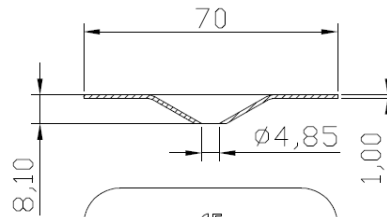
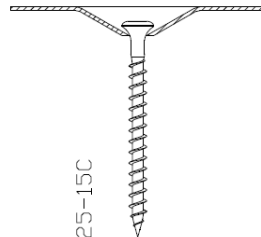


DVP-EF-7070D or EPM-7070D-4.85-1.0

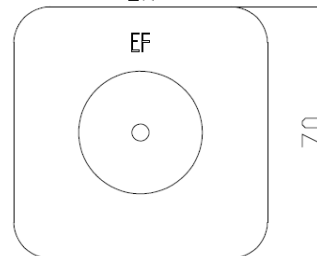
EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



ERWS-50xLL-0-T25-15C



DR

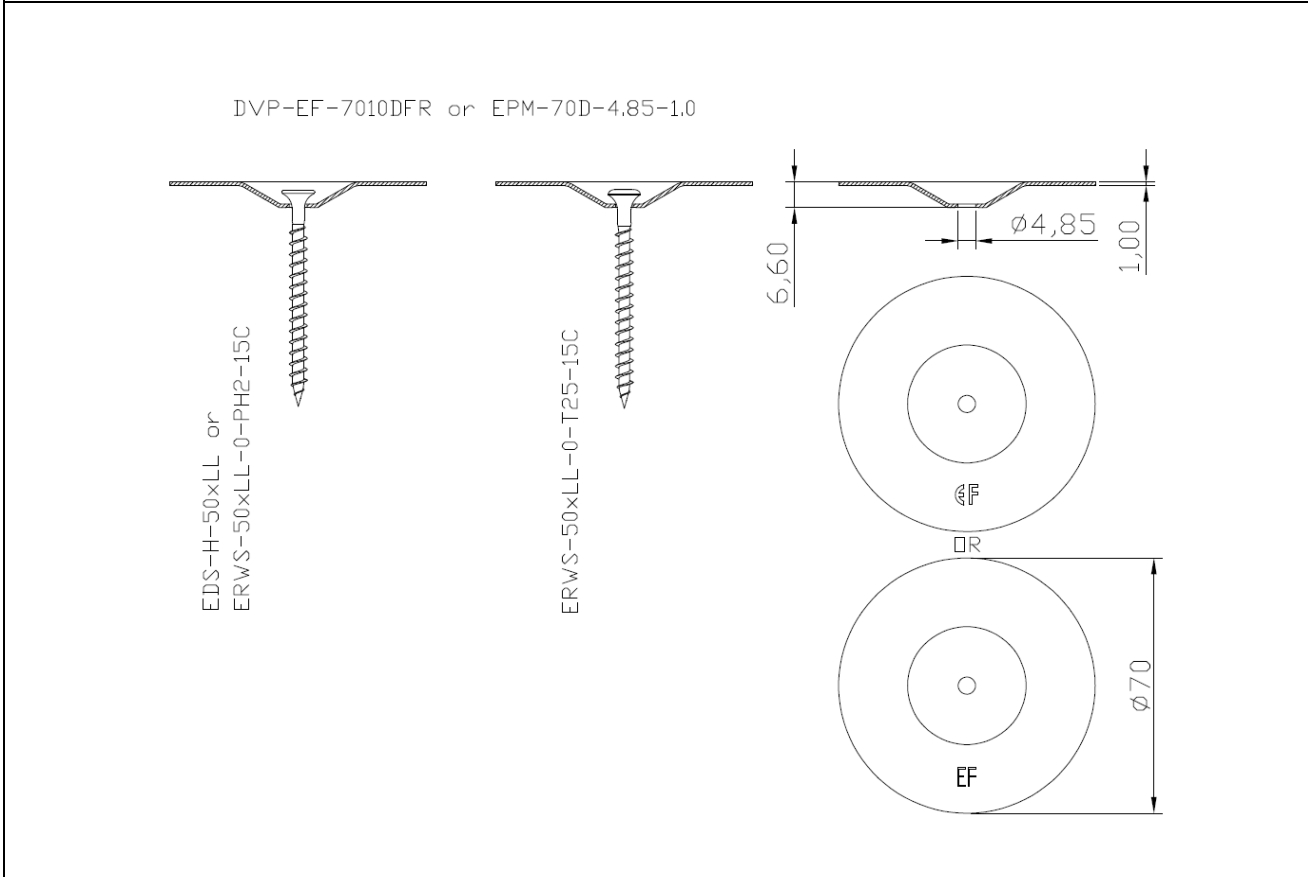
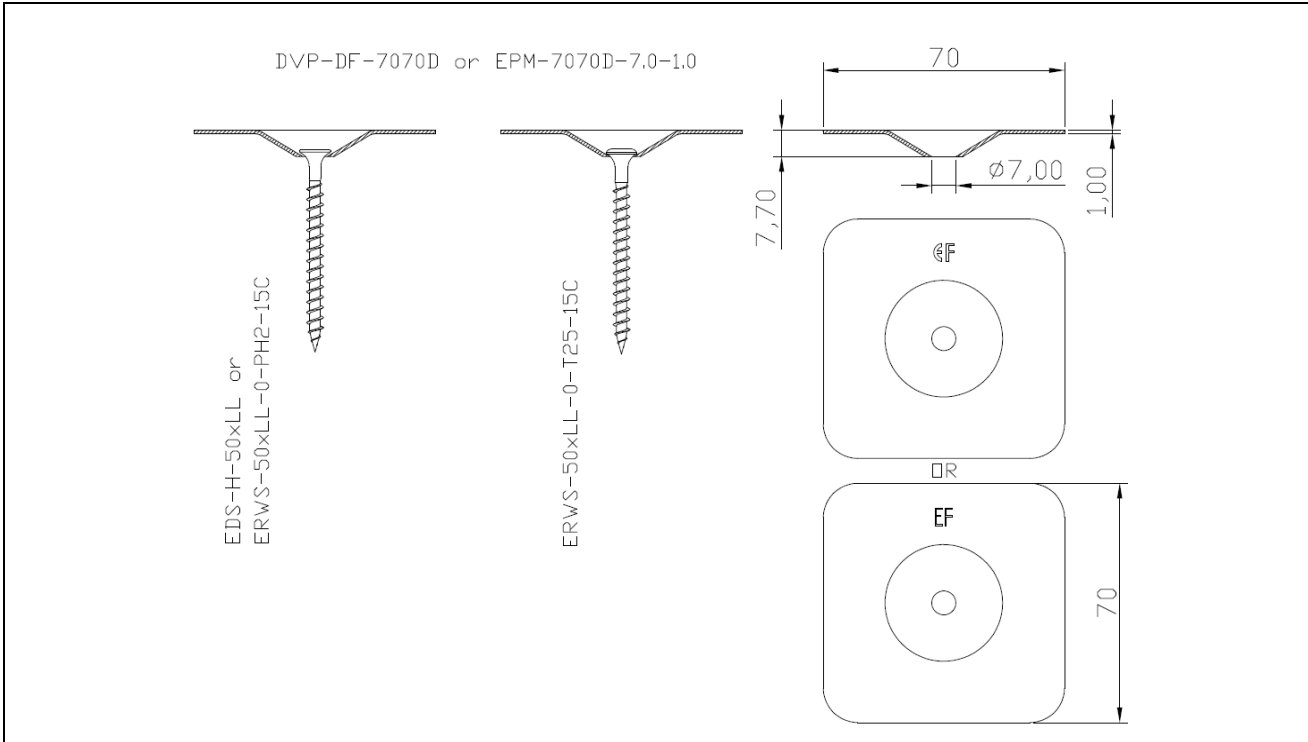


**Eurofast Flat Roof Fasteners**

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

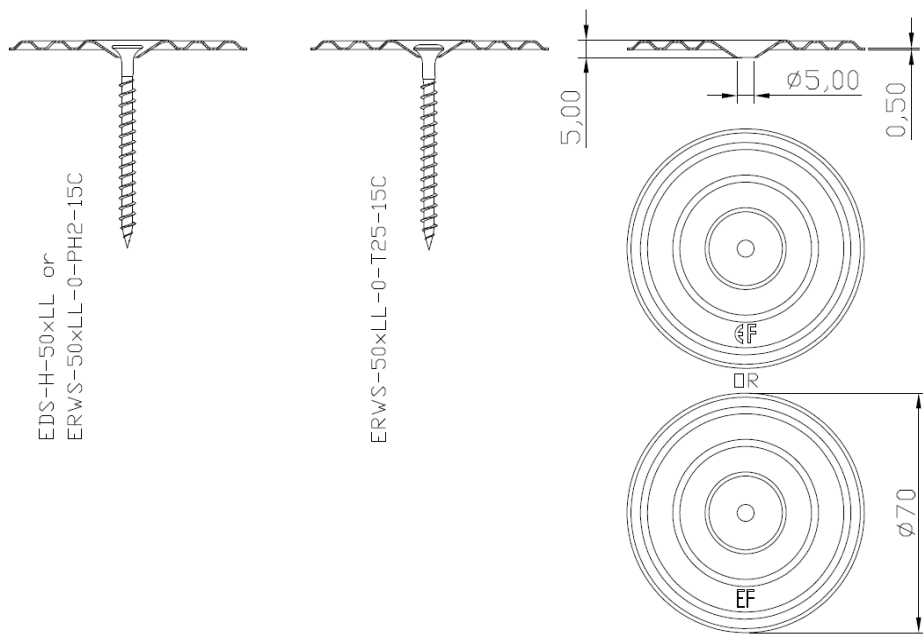
**Annex J.11**



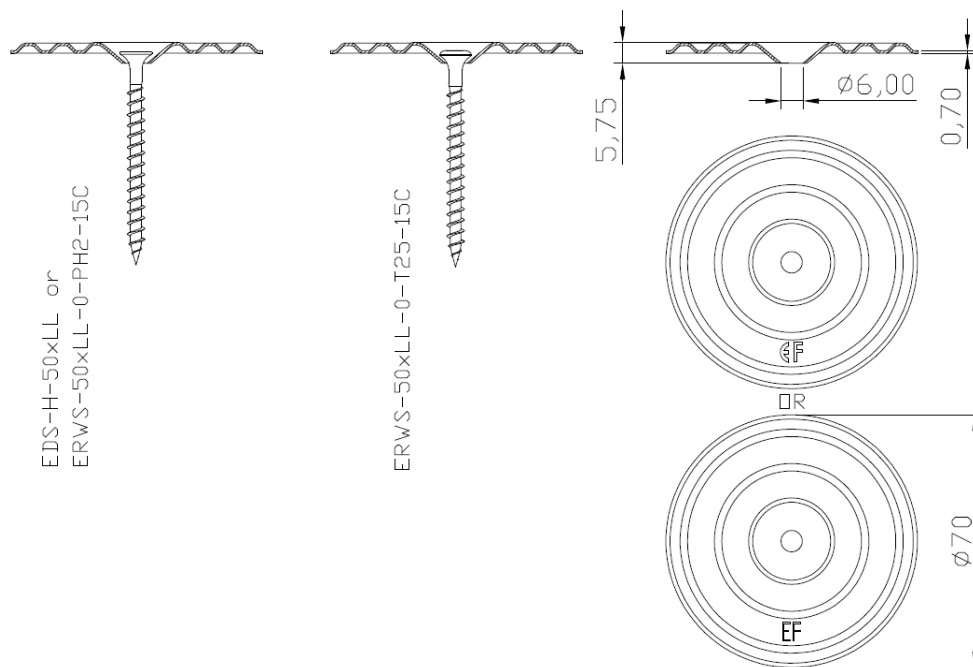


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.12</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

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



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

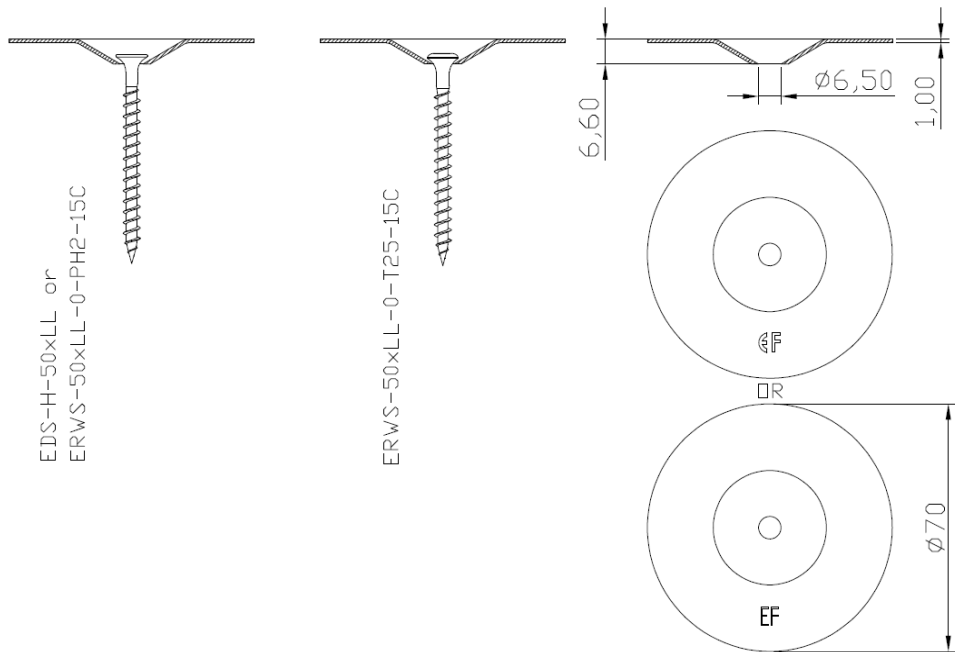


**Eurofast Flat Roof Fasteners**

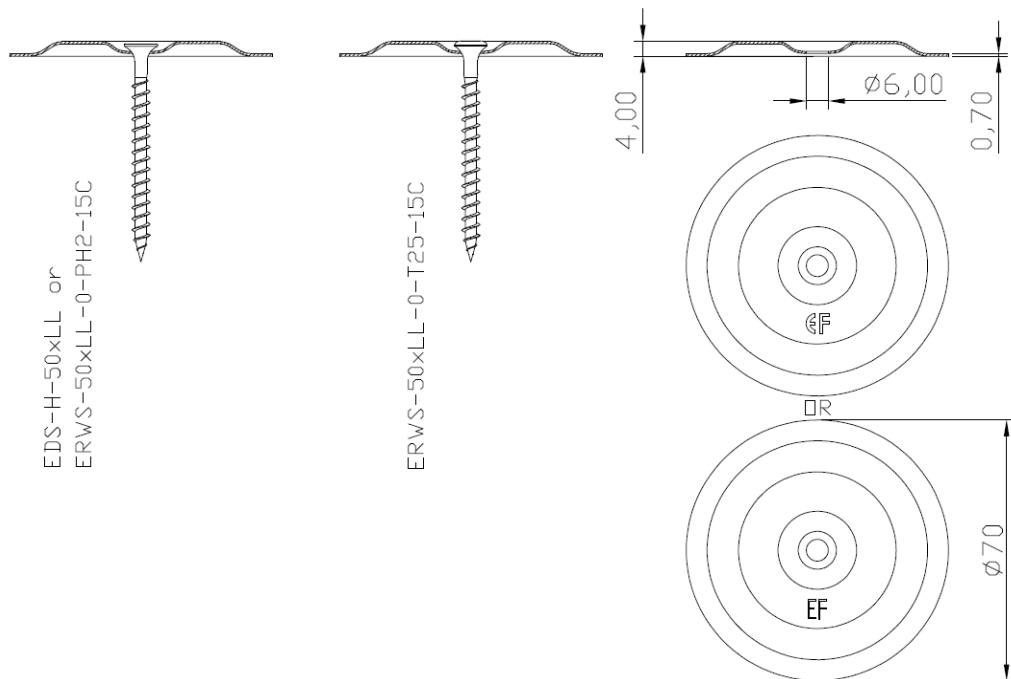
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)  
ERWS-50xLL-0-T25-15C

**Annex J.13**

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



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

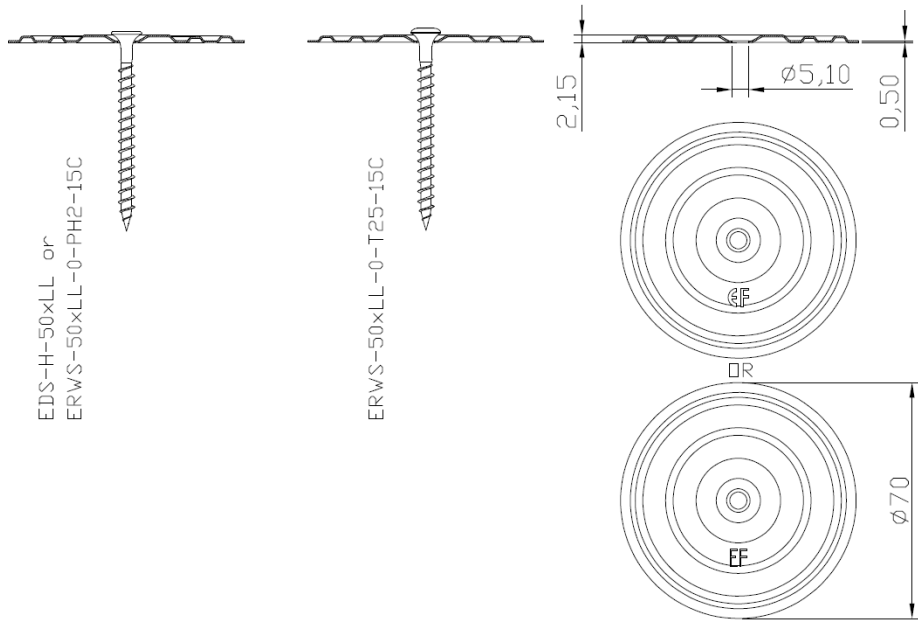


**Eurofast Flat Roof Fasteners**

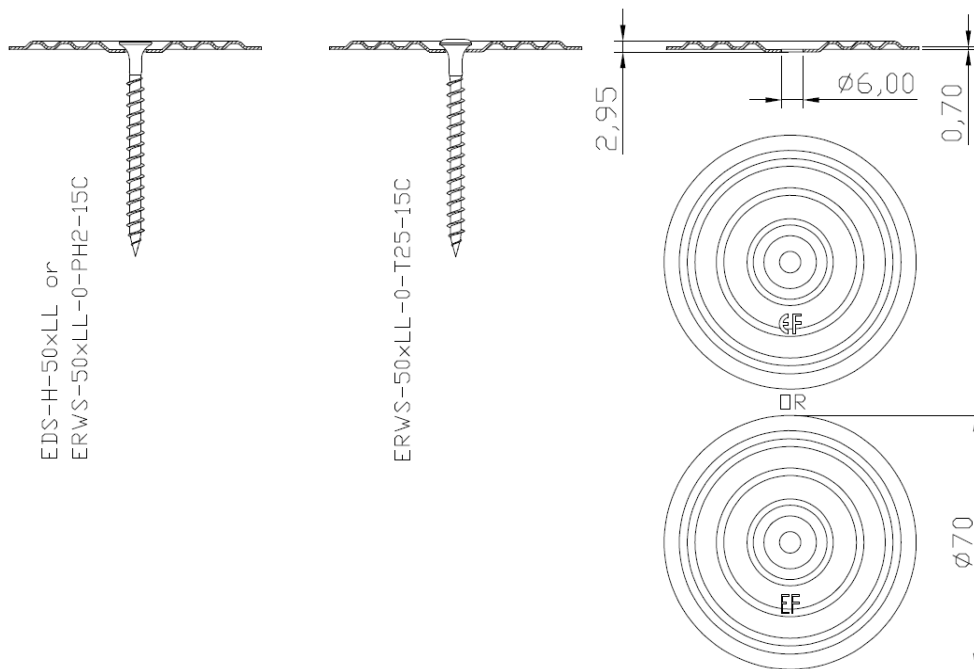
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)  
ERWS-50xLL-0-T25-15C

**Annex J.14**

DVP-EF-7005N or EPM-70N-5.1-0.5



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

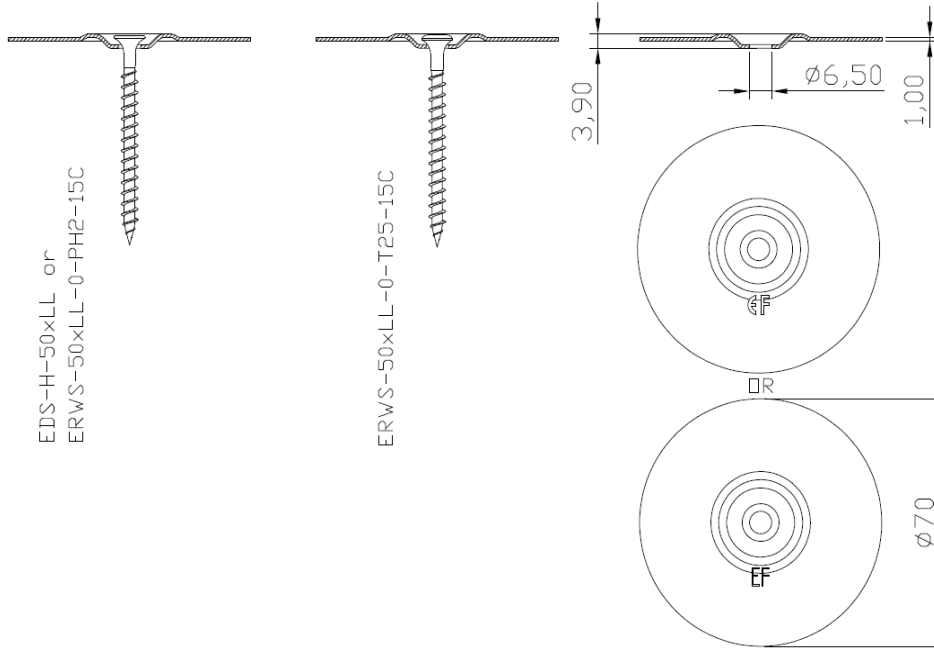


**Eurofast Flat Roof Fasteners**

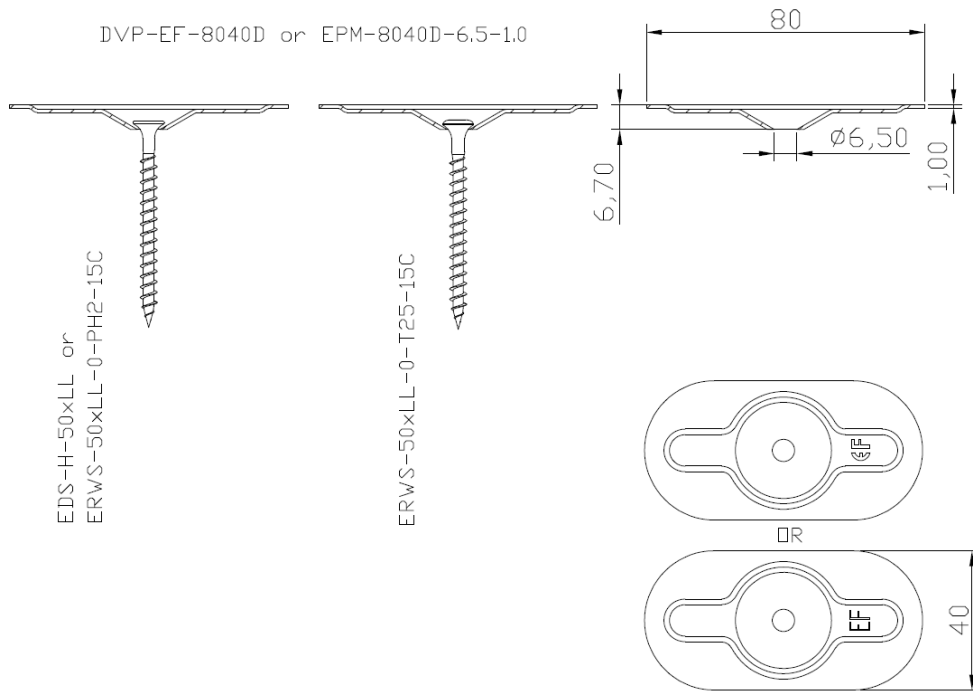
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C)  
ERWS-50xLL-0-T25-15C

**Annex J.15**

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



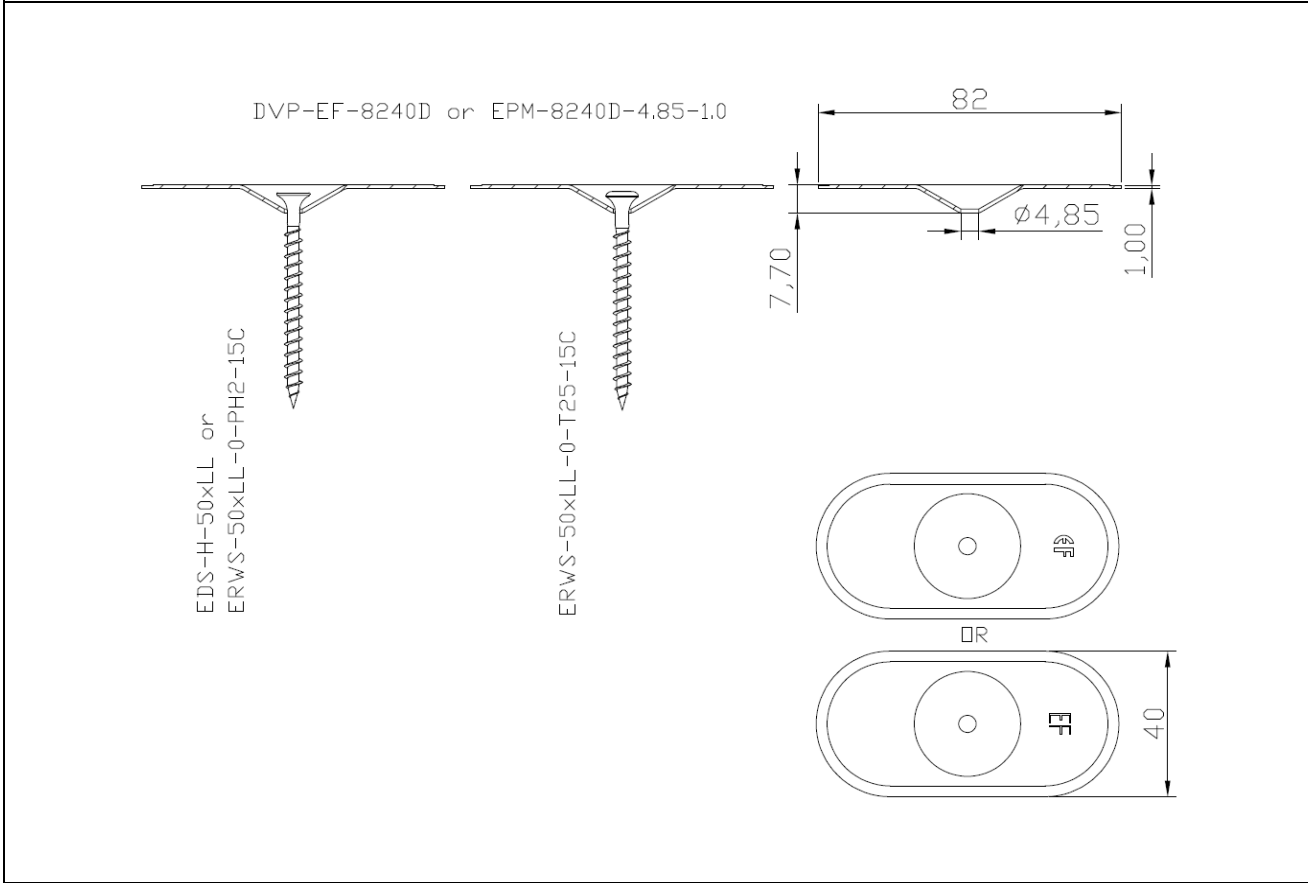
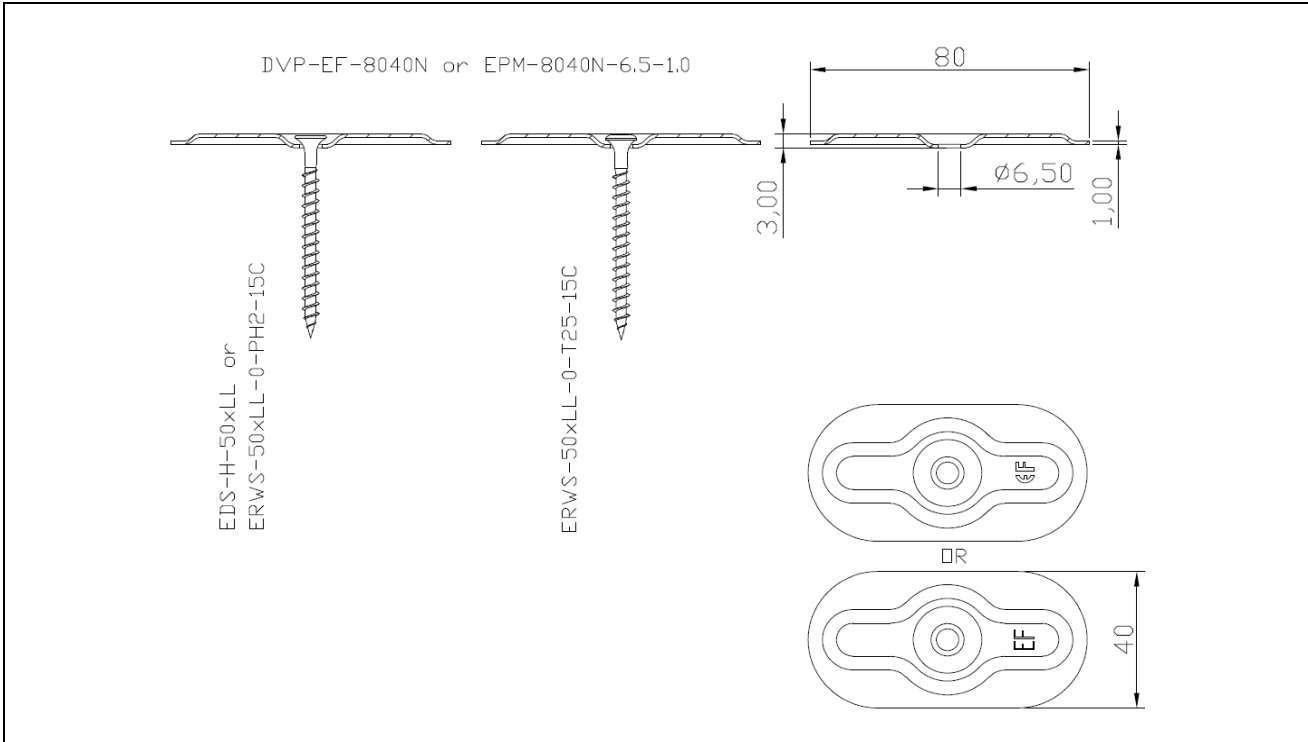
DVP-EF-8040D or EPM-8040D-6.5-1.0



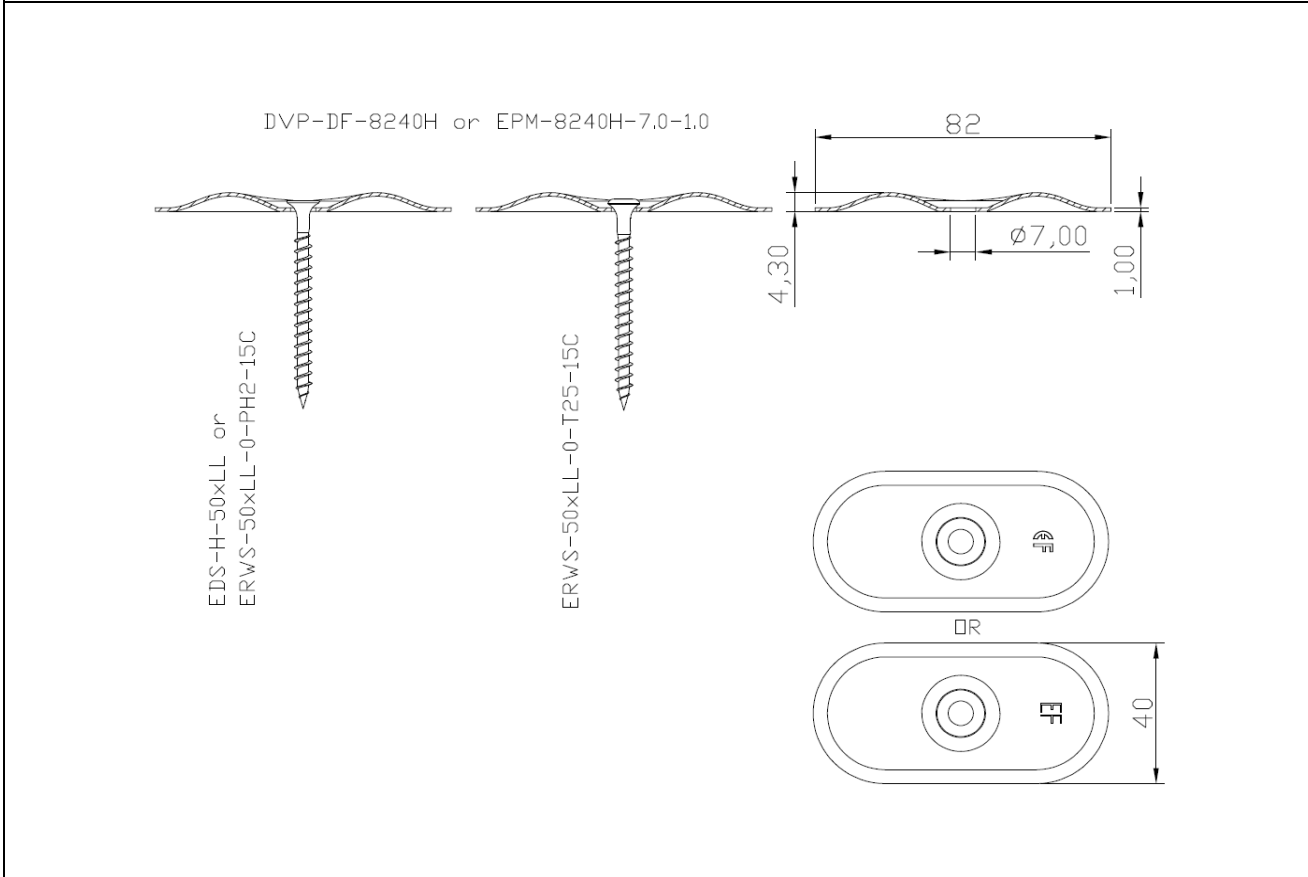
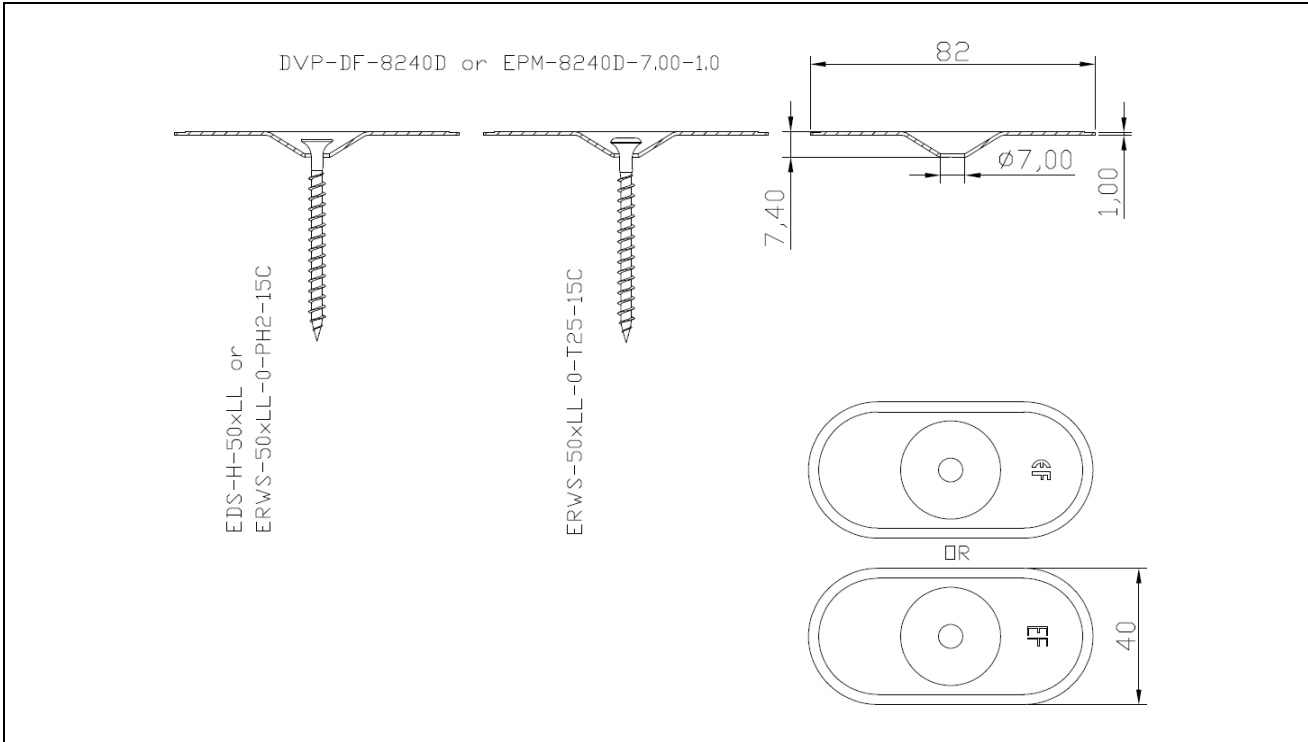
**Eurofast Flat Roof Fasteners**

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

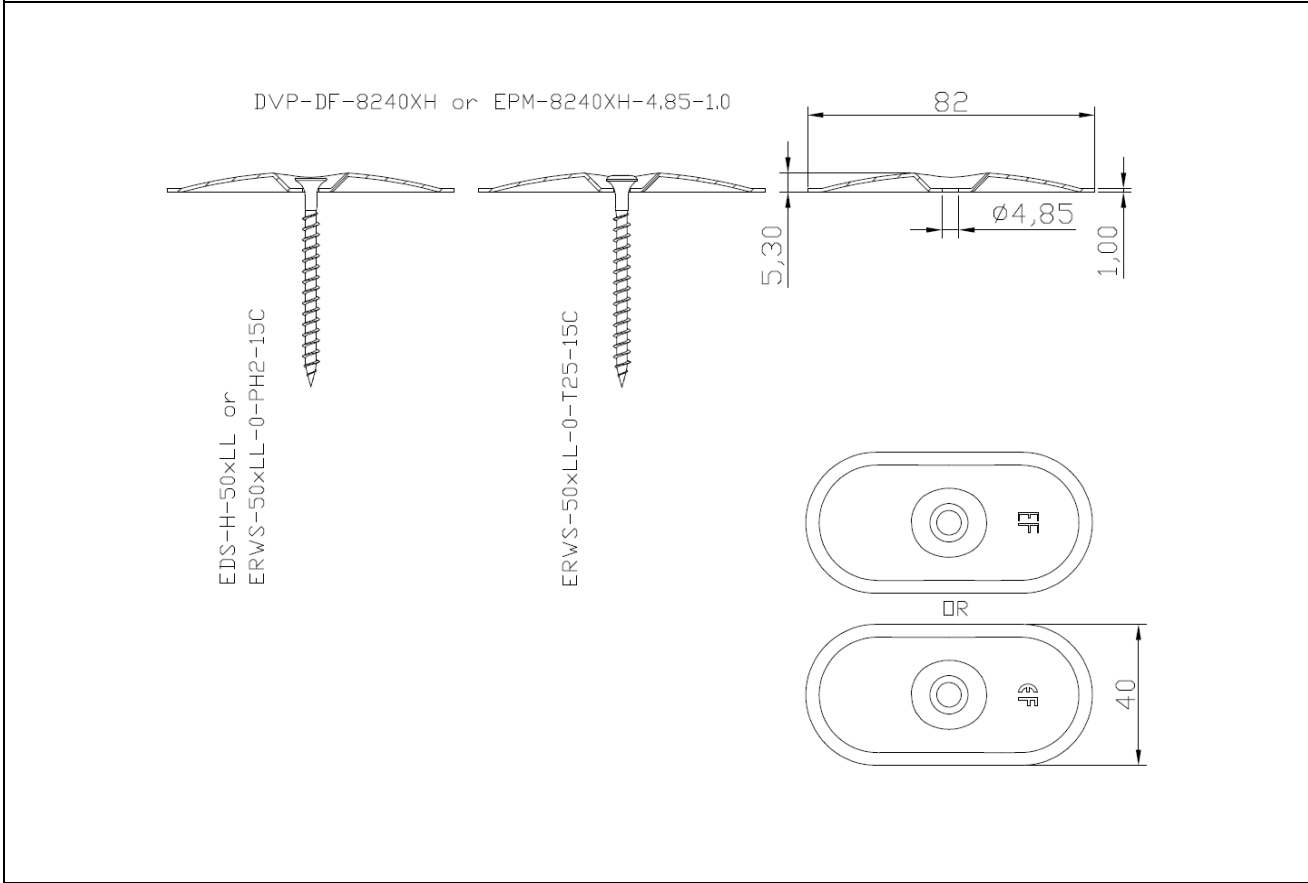
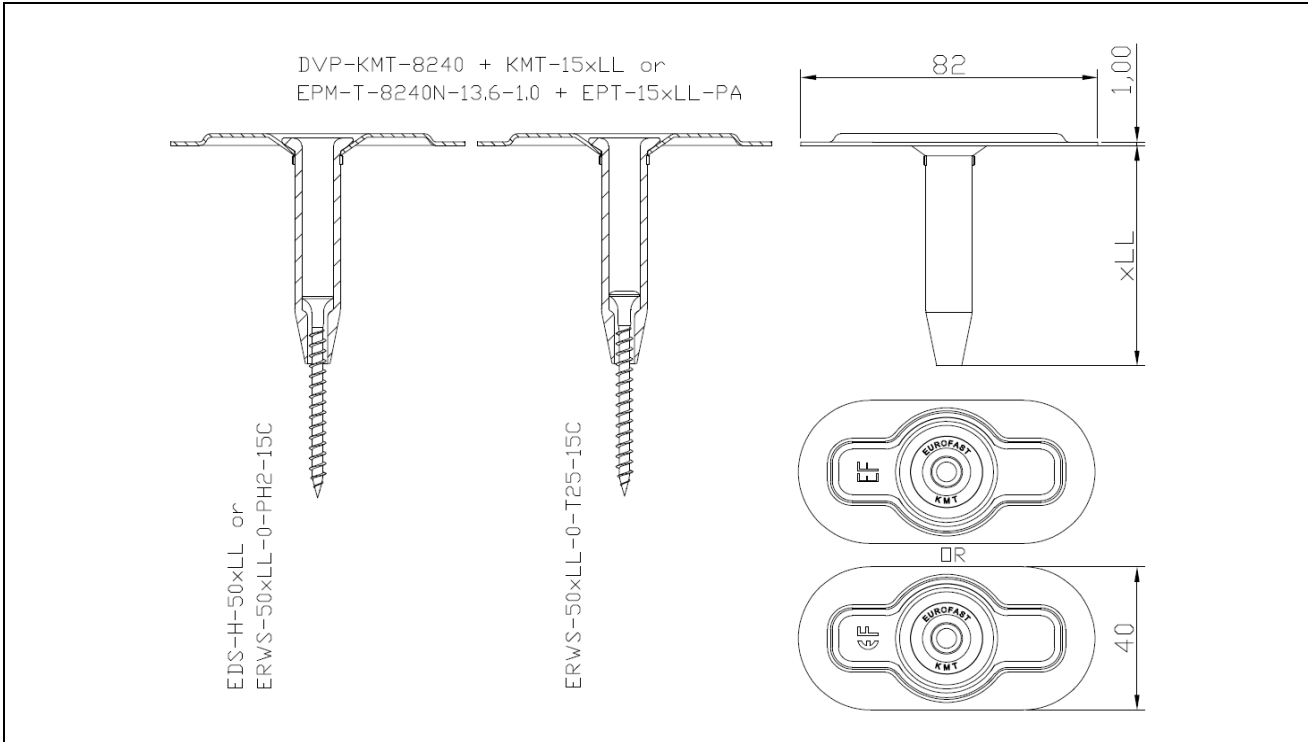
**Annex J.16**



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.17</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

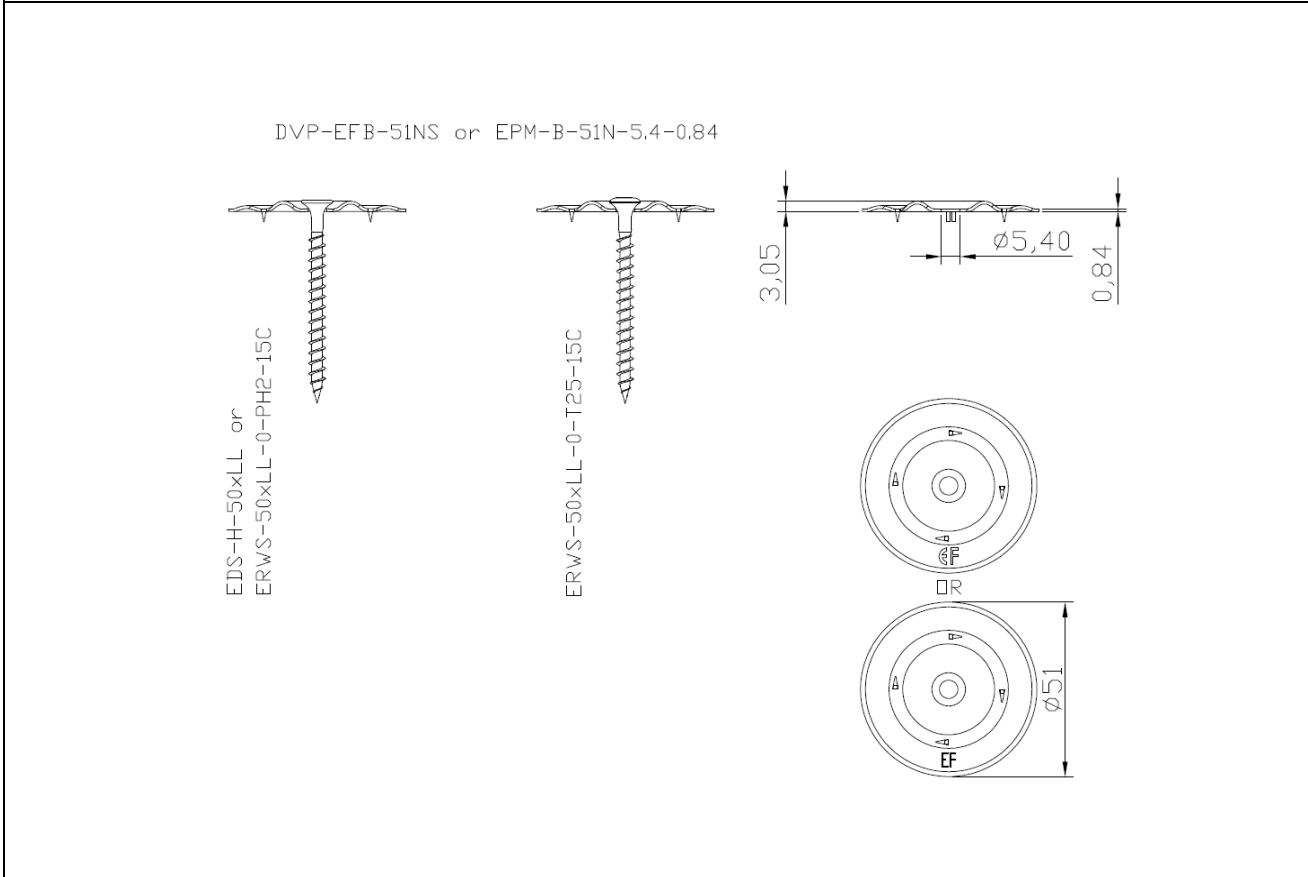
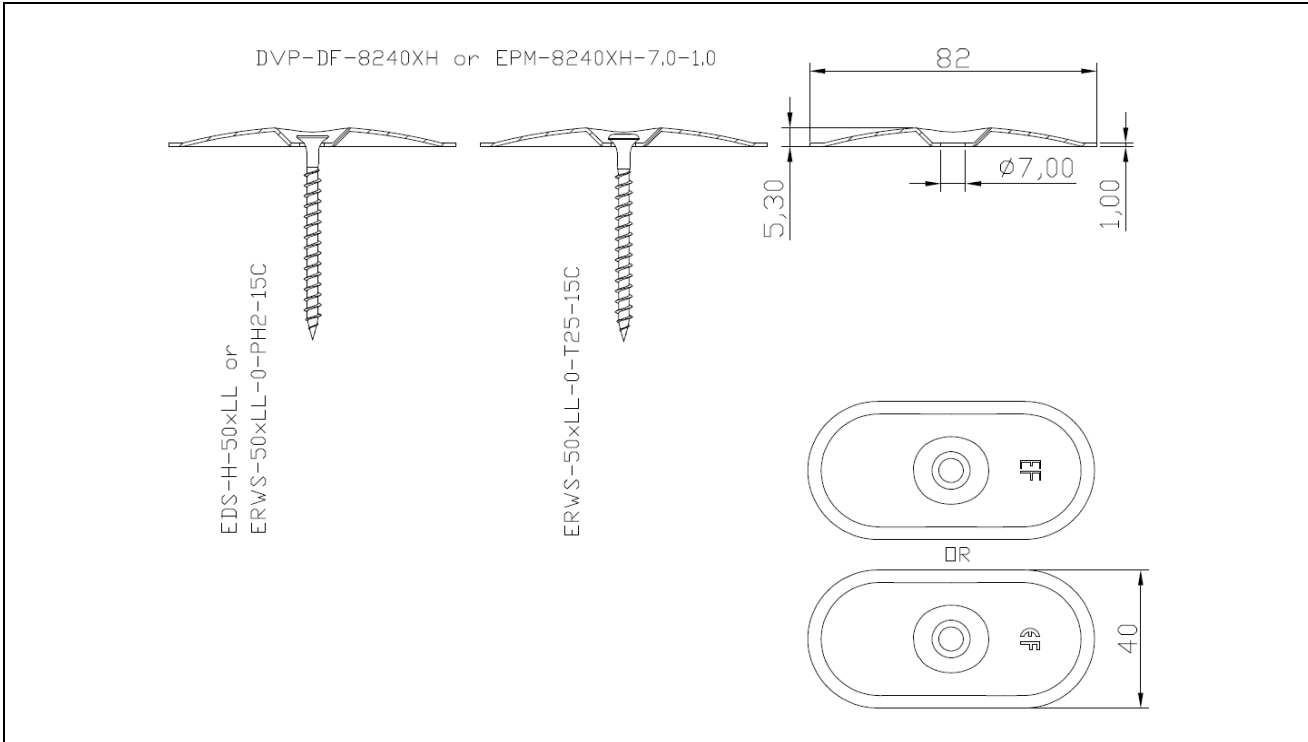


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.18</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	



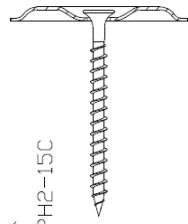
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.19</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	



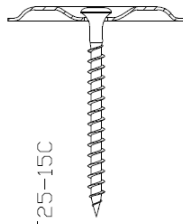


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.20</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

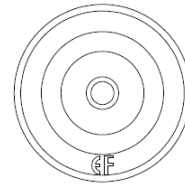
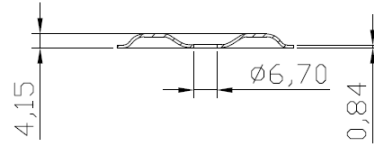
DVP-EF-51N or EPM-51N-6.7-0.84



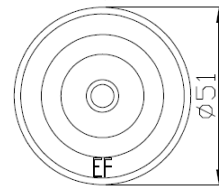
EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



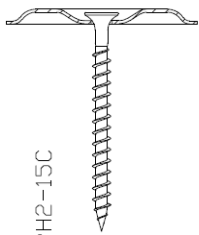
ERWS-50xLL-0-T25-15C



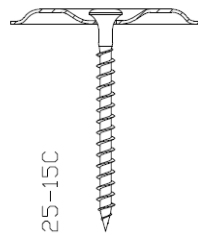
OR



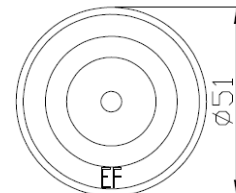
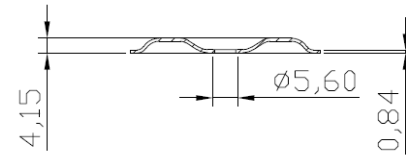
EPM-51N-5.6-0.84



EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C



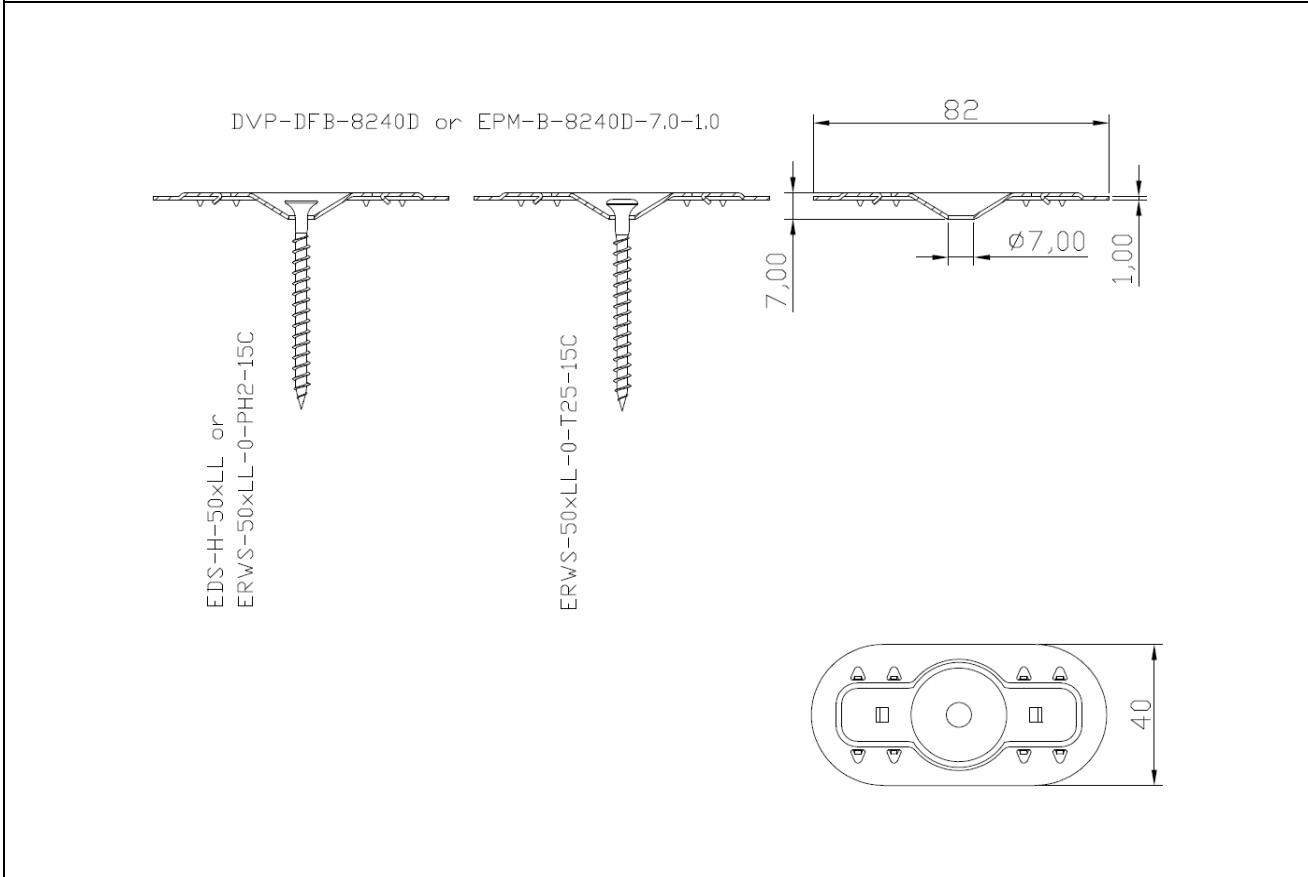
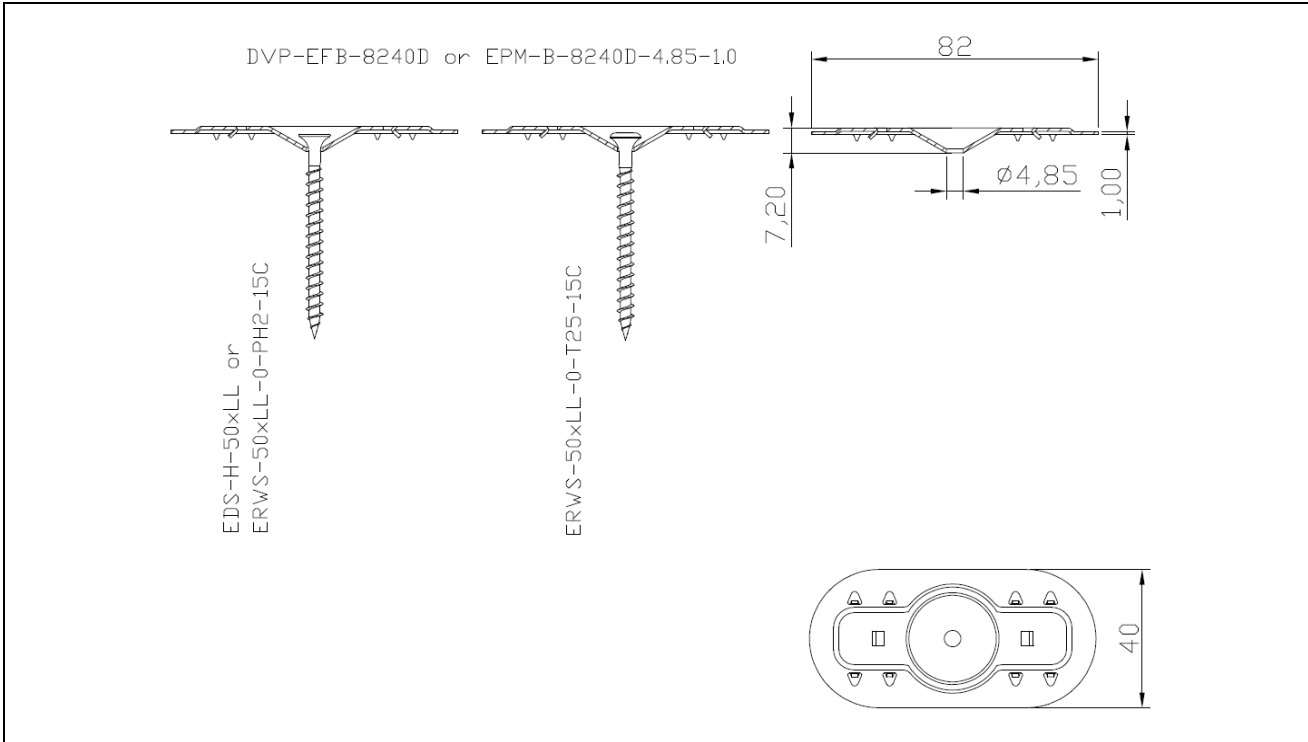
ERWS-50xLL-0-T25-15C



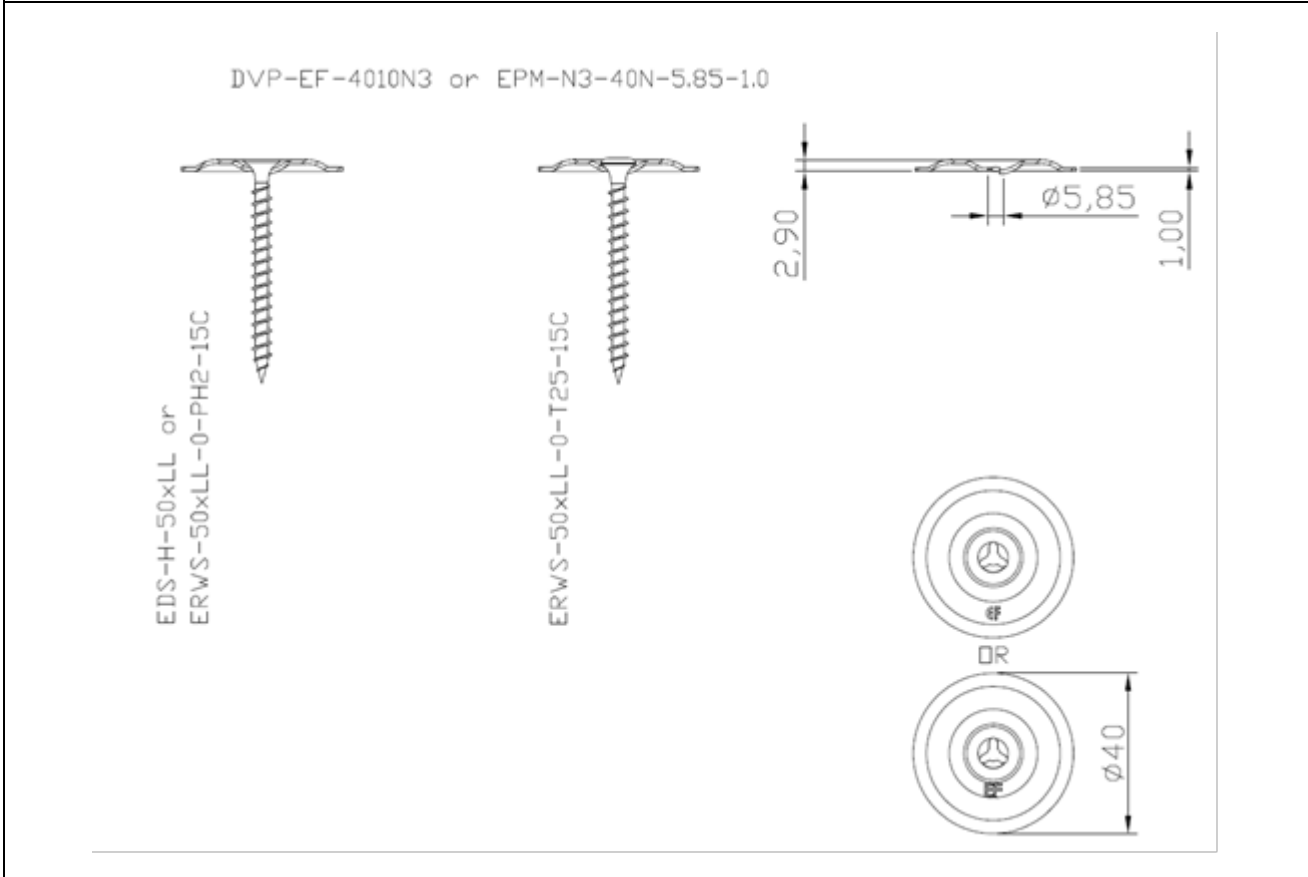
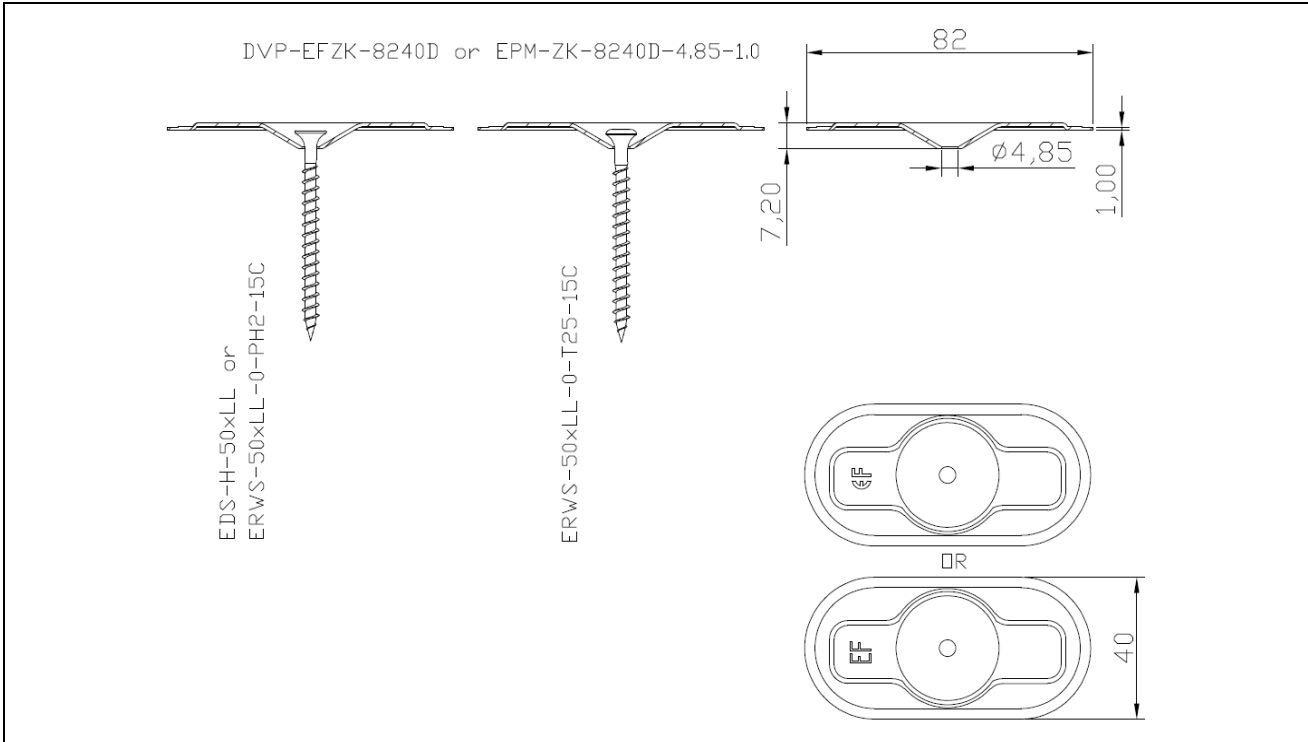
**Eurofast Flat Roof Fasteners**

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

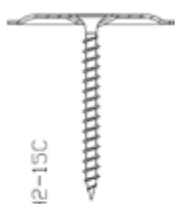

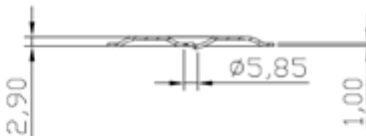


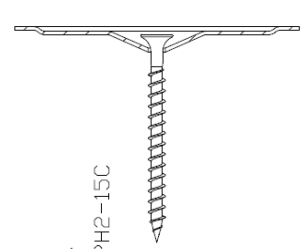
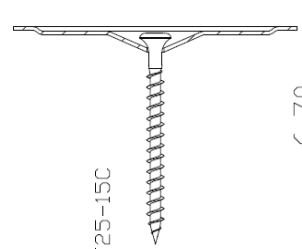
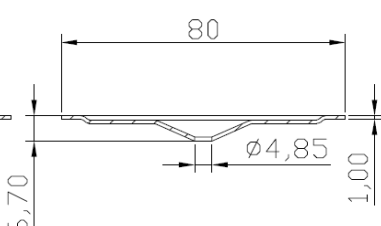
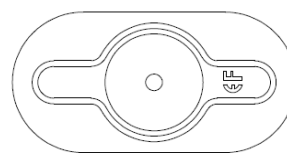
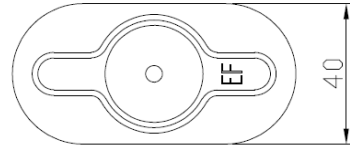
**Annex J.21**

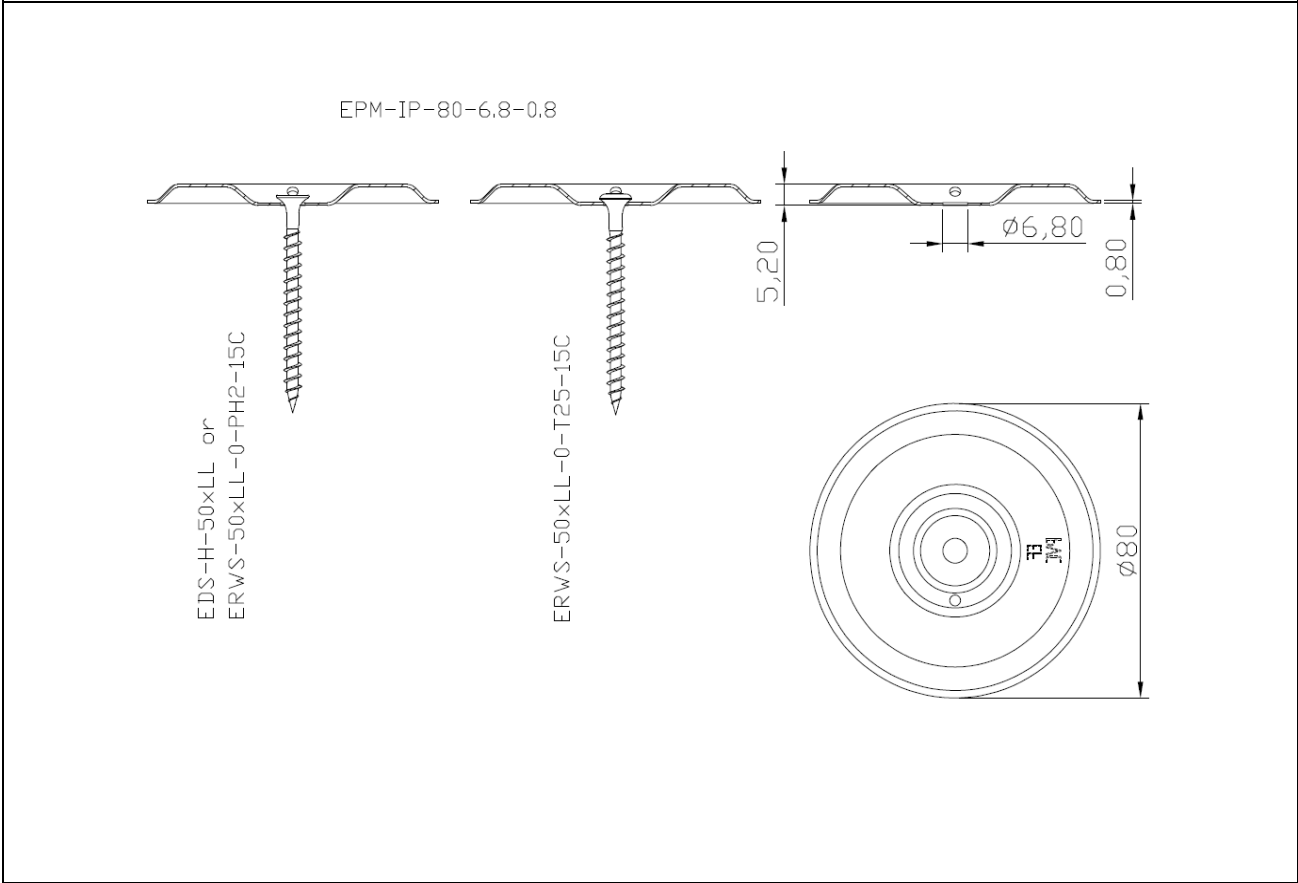
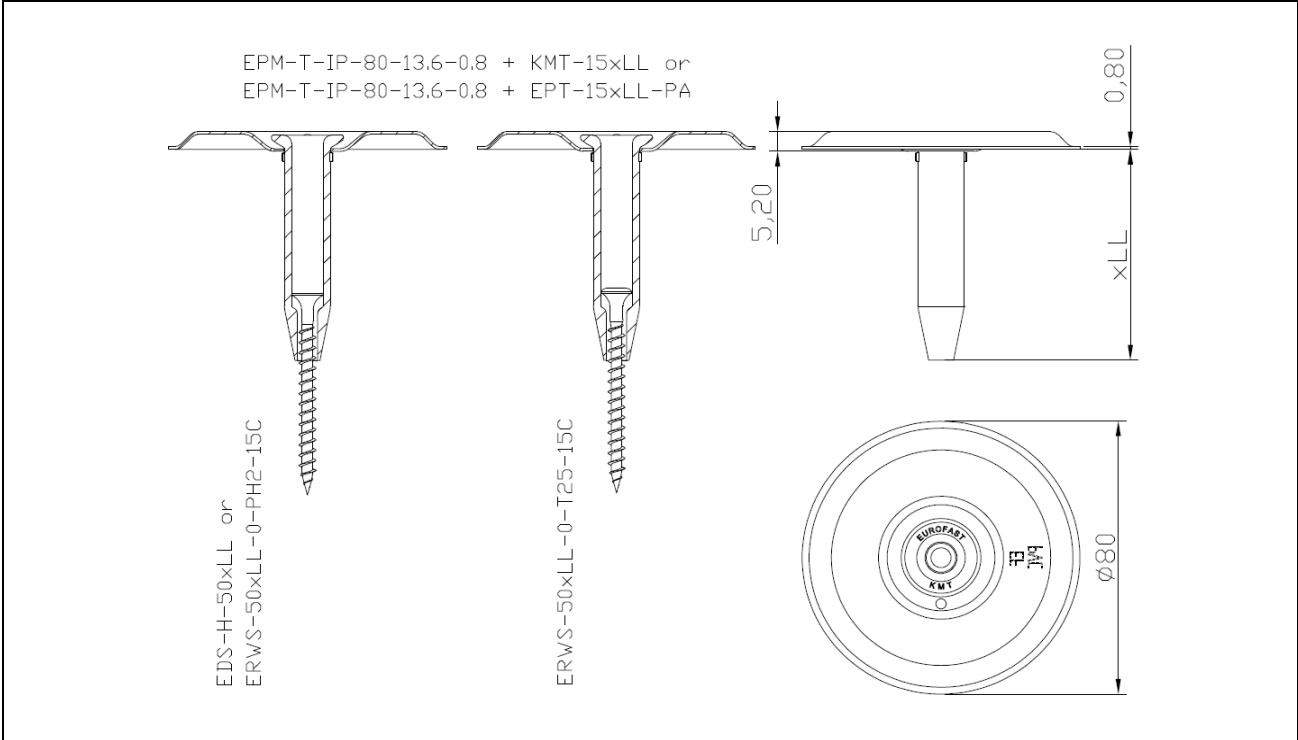


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.22</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	

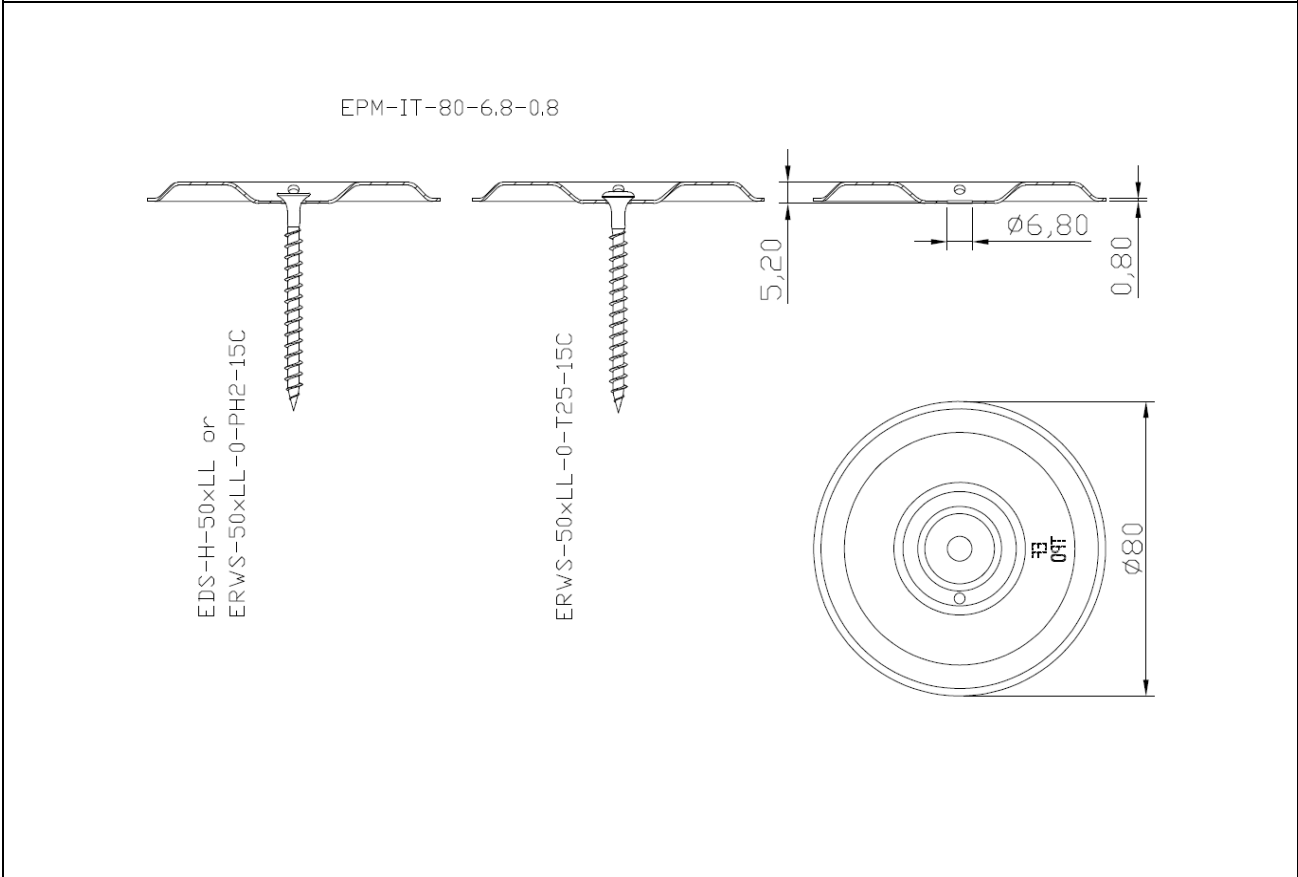
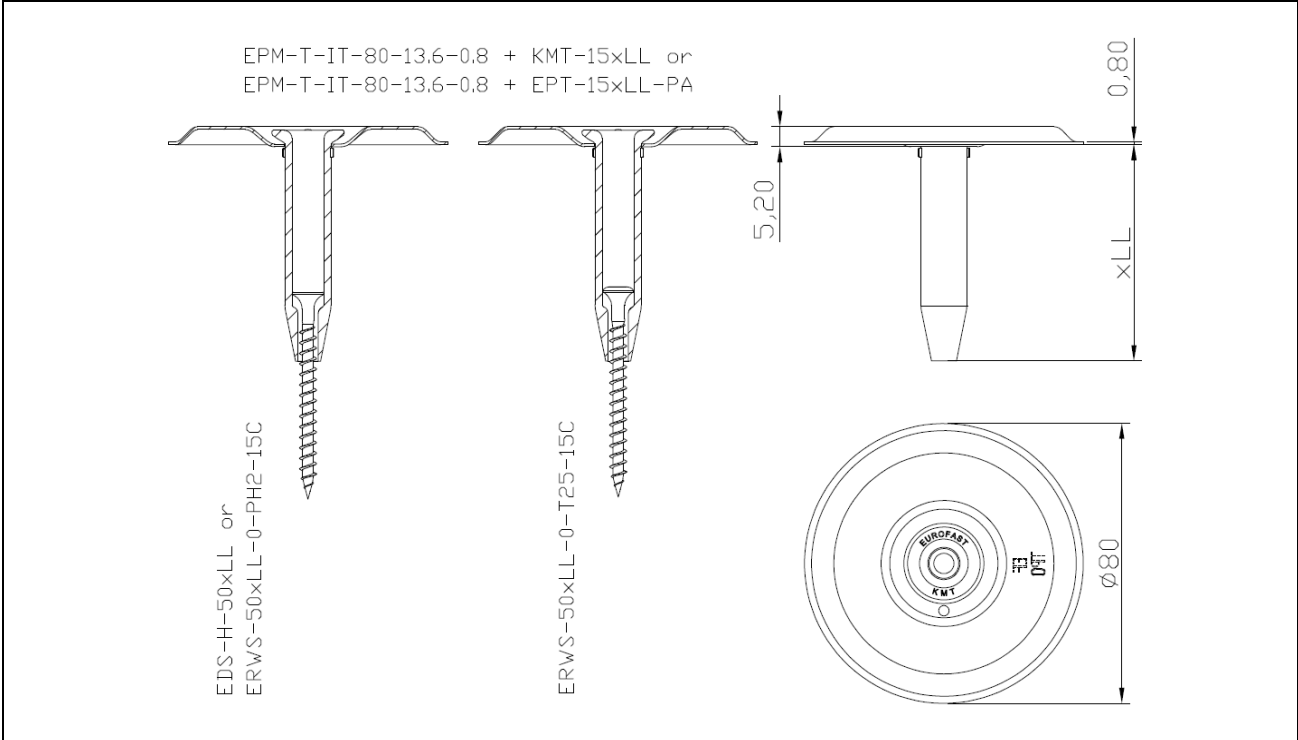


<b>Eurofast Flat Roof Fasteners</b>		<b>Annex J.23</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C		

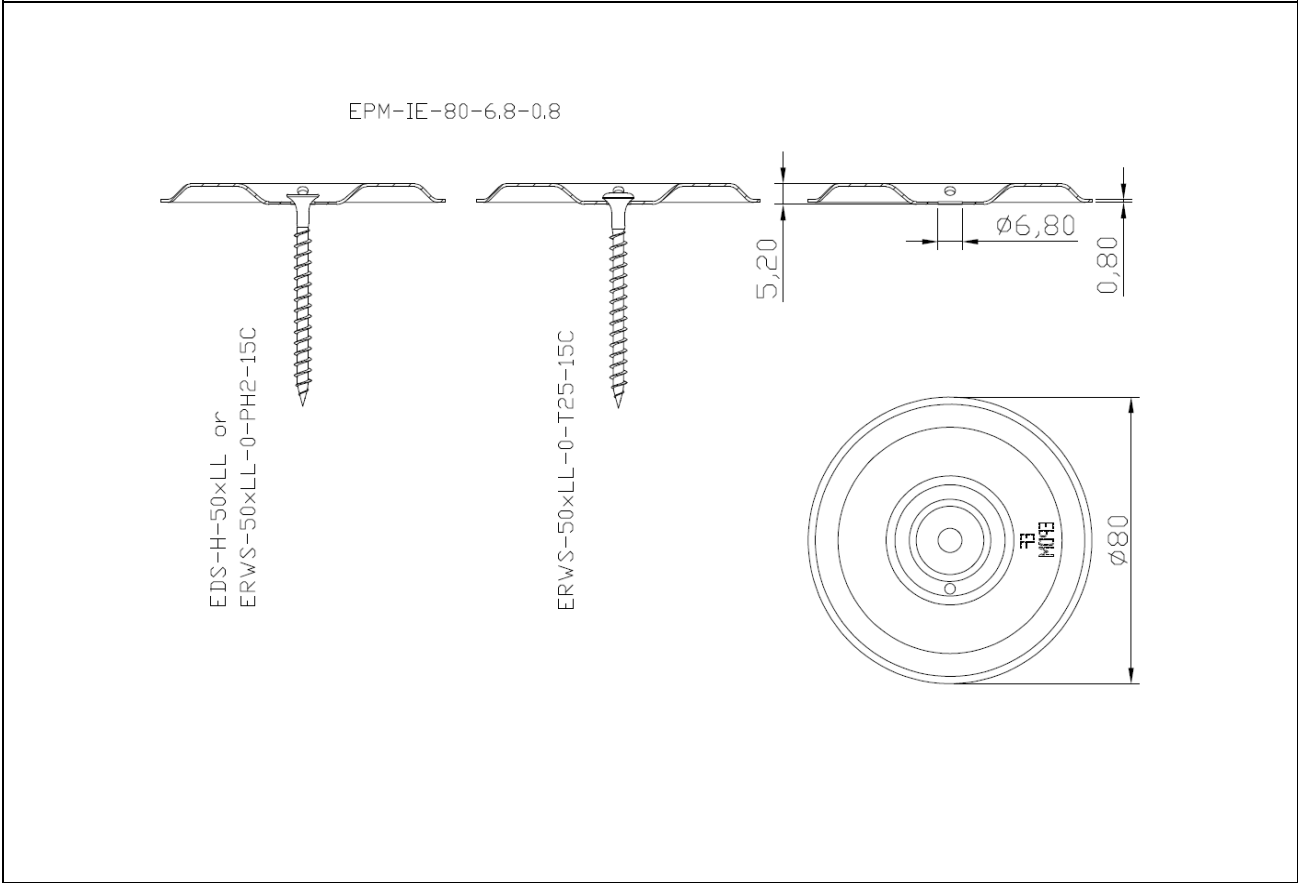
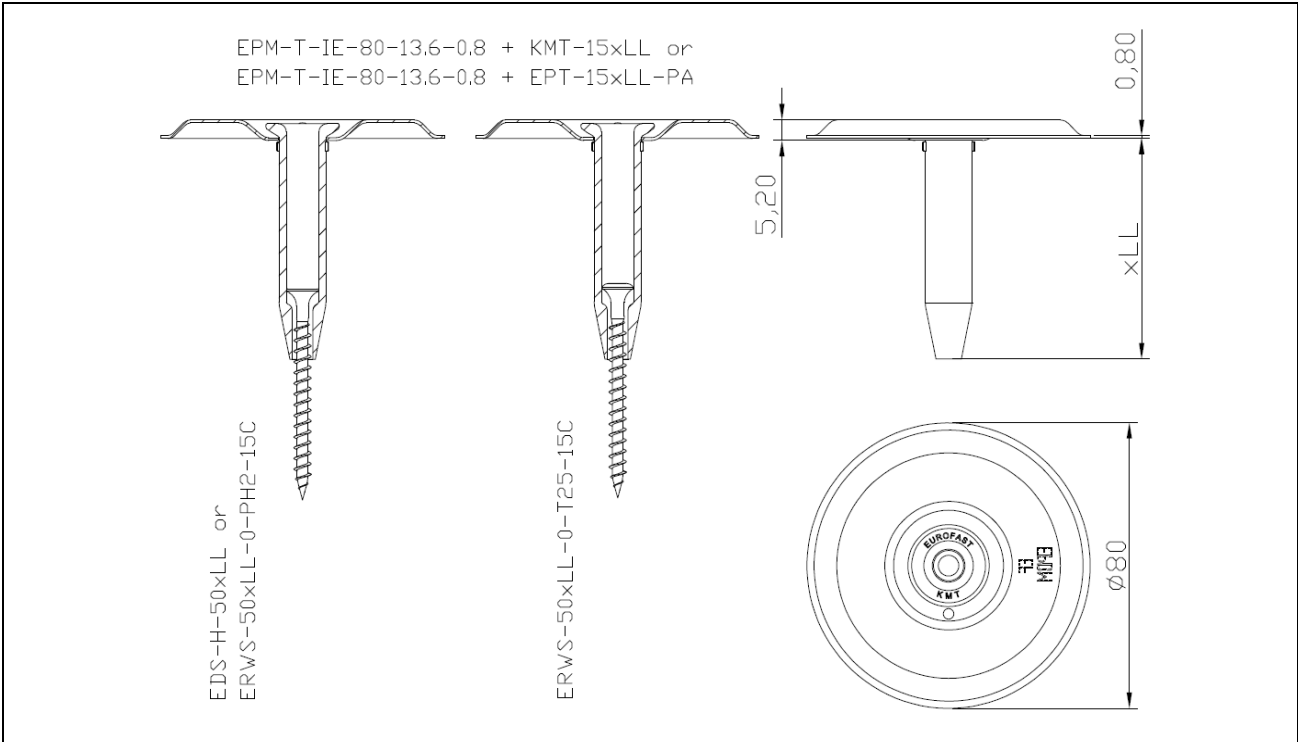
<p style="text-align: center;">DVP-EF-5010N3 or EPM-N3-50N-5.85-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p>  </div> <div style="text-align: center;"> <p>ERWS-50xLL-0-T25-15C</p>  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>DR</p>  <p>50</p> </div>	
<p style="text-align: center;">DVP-EFF-8040D or EPM-8040D-4.85-1.0</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>EDS-H-50xLL or ERWS-50xLL-0-PH2-15C</p>  </div> <div style="text-align: center;"> <p>ERWS-50xLL-0-T25-15C</p>  </div> <div style="text-align: center;">  </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>DR</p>  <p>40</p> </div>	
<p><b>Eurofast Flat Roof Fasteners</b></p> <p>EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C</p>	<p><b>Annex J.24</b></p>



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.25</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	



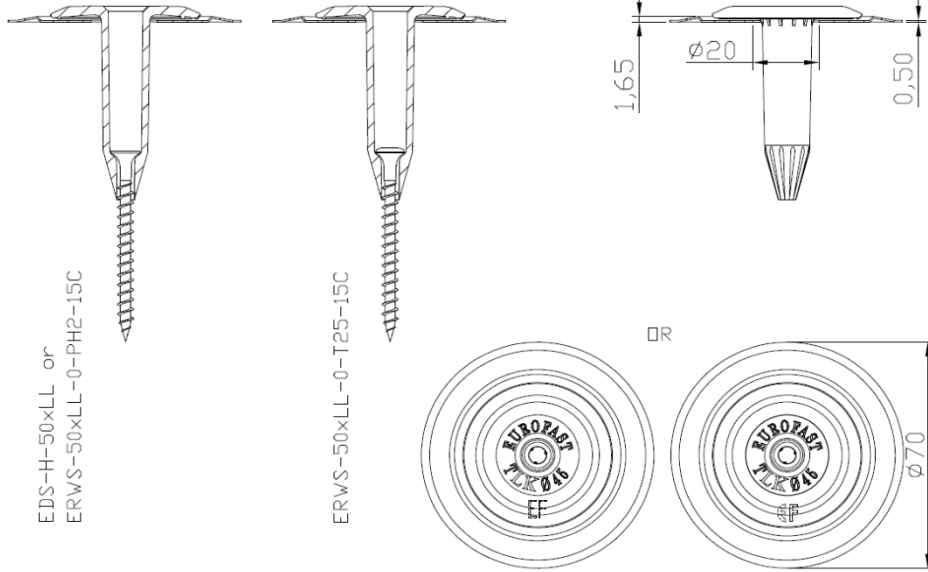
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.26</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	



<b>Eurofast Flat Roof Fasteners</b>	<b>Annex J.27</b>
EDS-H-50xLL (ERWS-50xLL-0-PH2-15C) ERWS-50xLL-0-T25-15C	



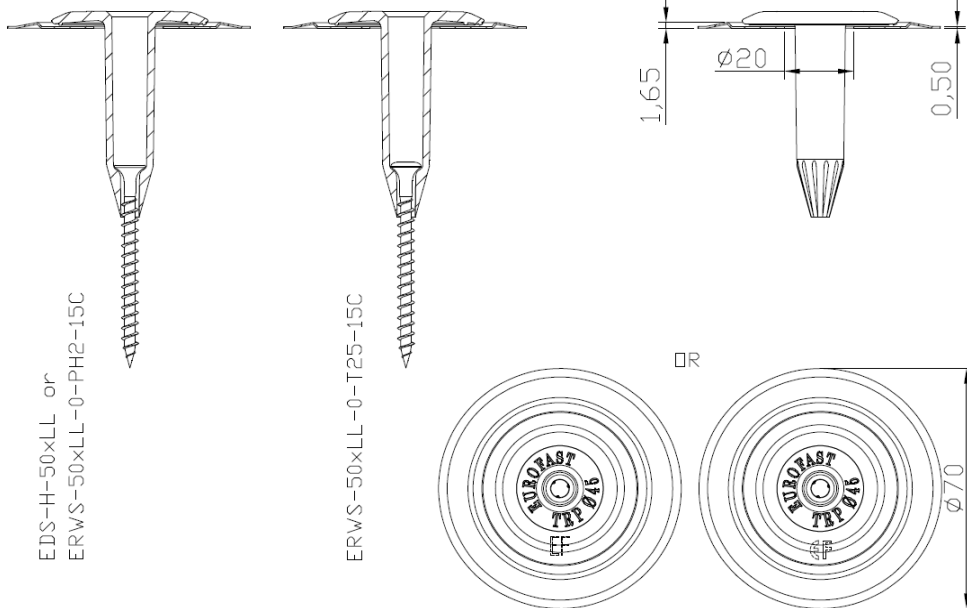
DVP-DL-70N + TLK-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C

ERWS-50xLL-0-T25-15C

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



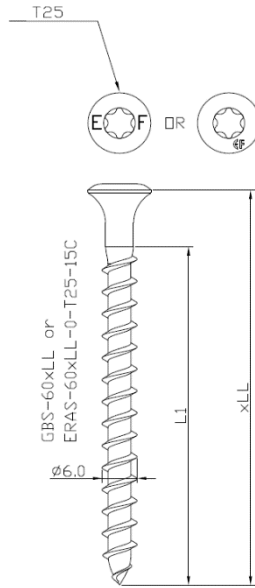
EDS-H-50xLL or  
ERWS-50xLL-0-PH2-15C

ERWS-50xLL-0-T25-15C

**Eurofast Flat Roof Fasteners**

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

**Annex J.28**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)				
	Autoclaved aerated concrete AAC 600 kg/m <sup>3</sup>	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 Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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)

### Annex K.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex K.2</b>
GBS-60xLL (ERAS-60xLL-0-T25-15C)	

**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 <sup>3</sup>	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

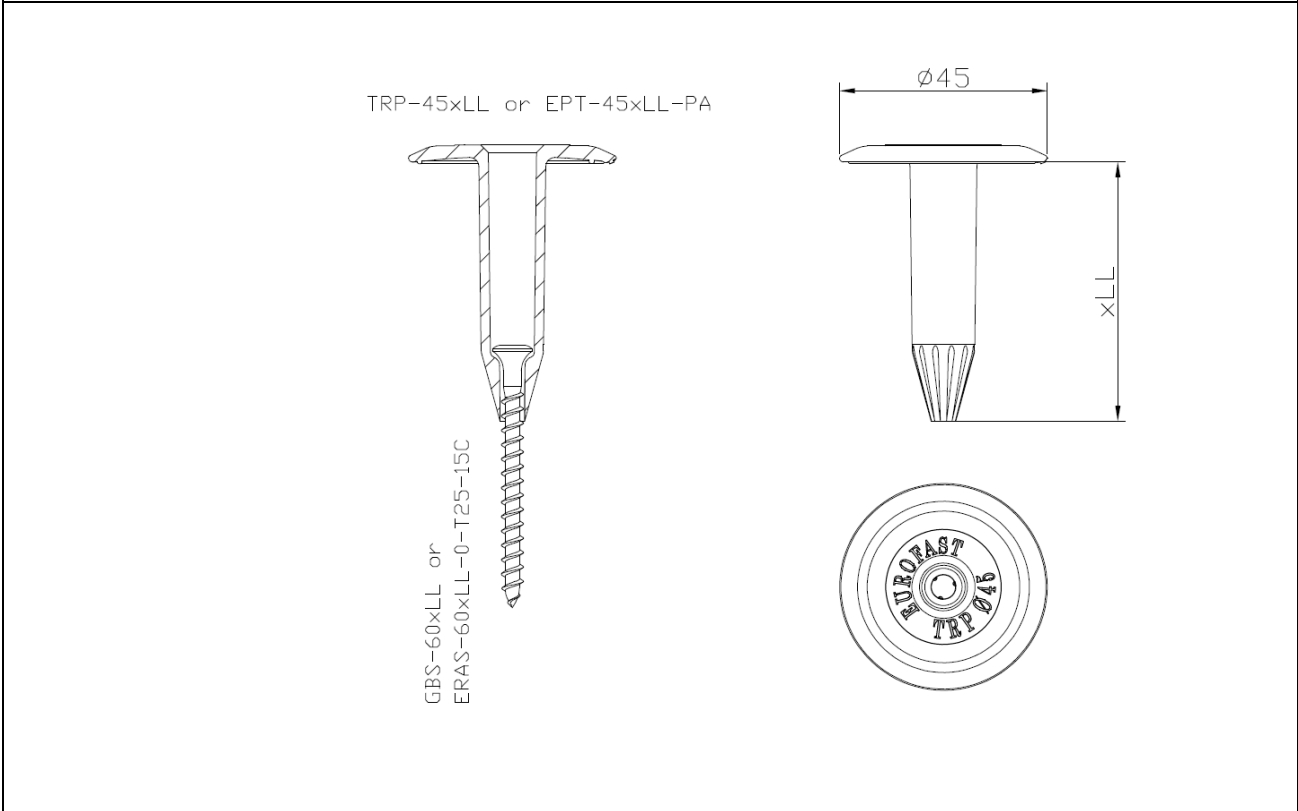
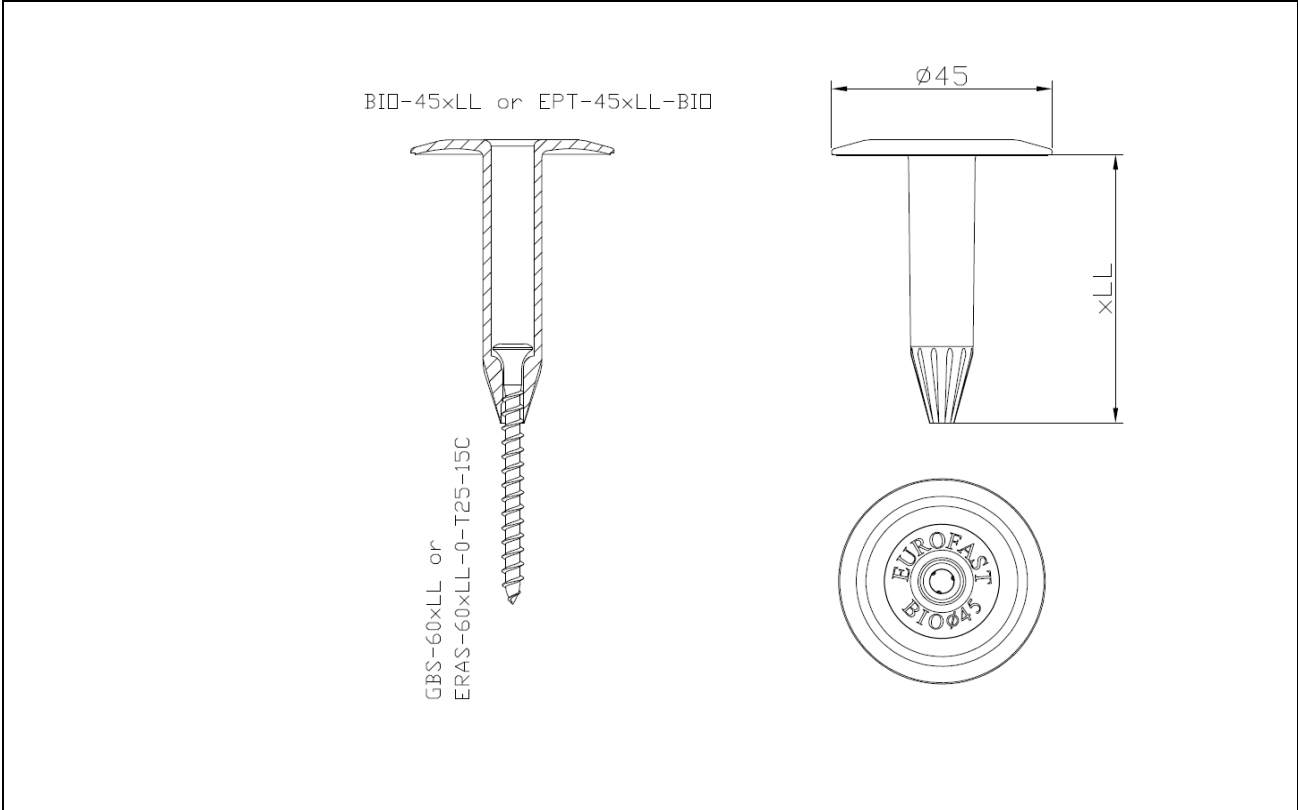
**Installation data:**

HUKAD type:	Raised Bugle HUKAD
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

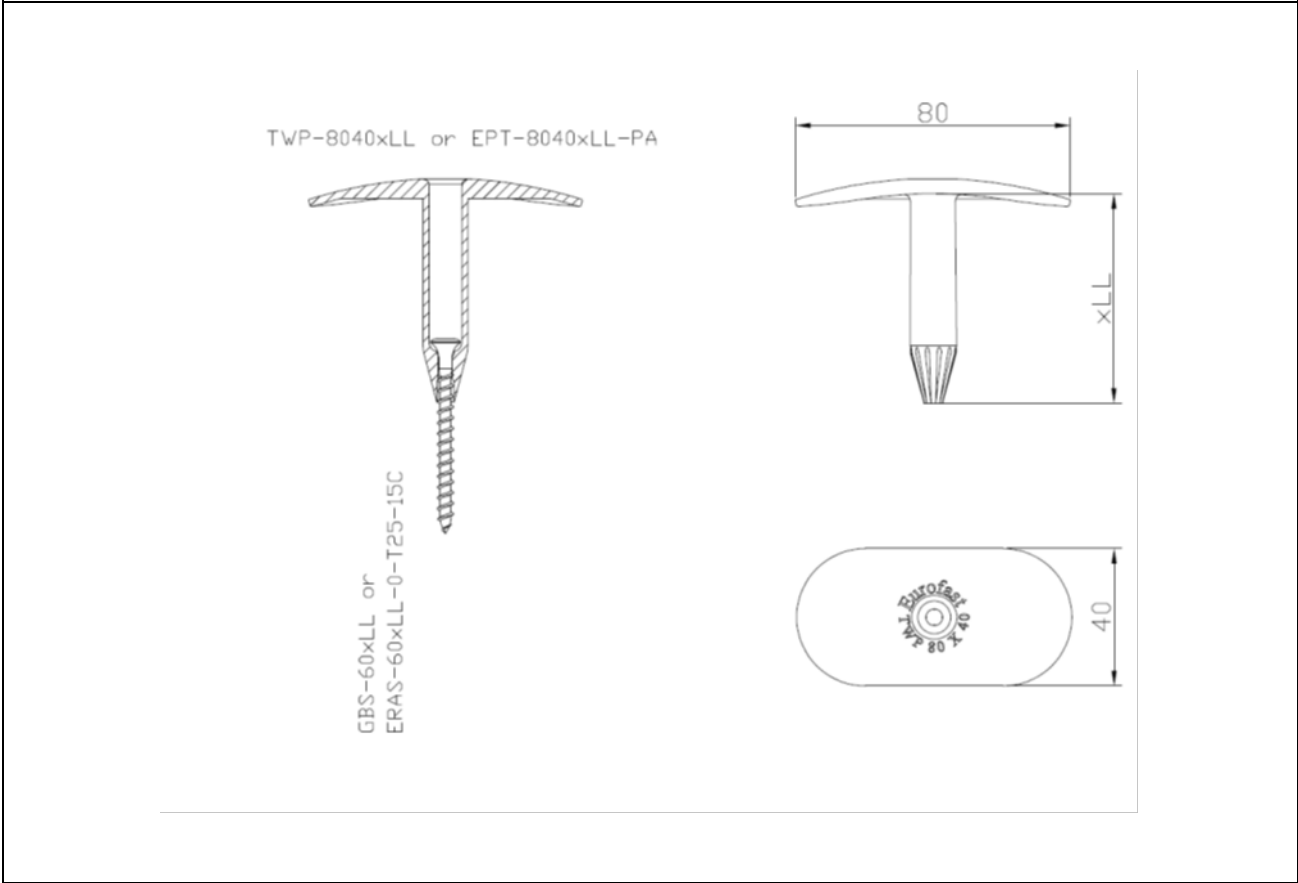
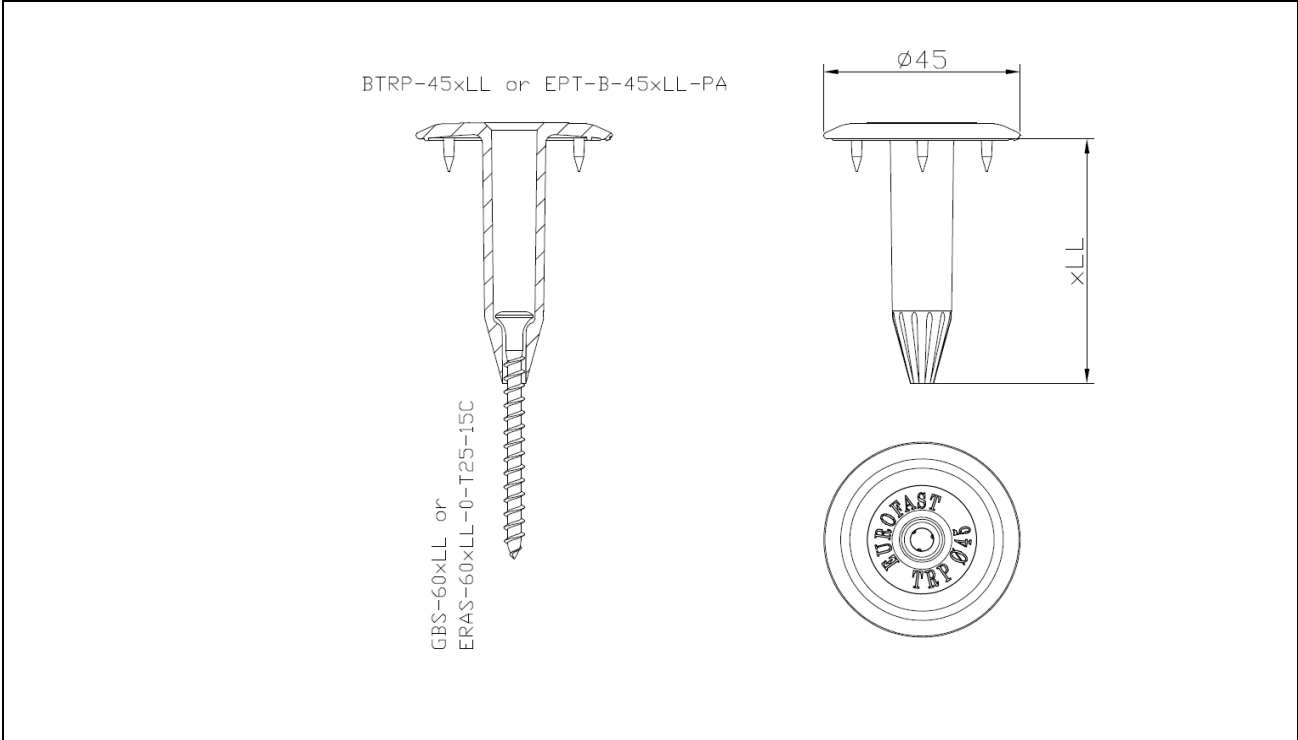
**Eurofast Flat Roof Fasteners**

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

**Annex K.3**

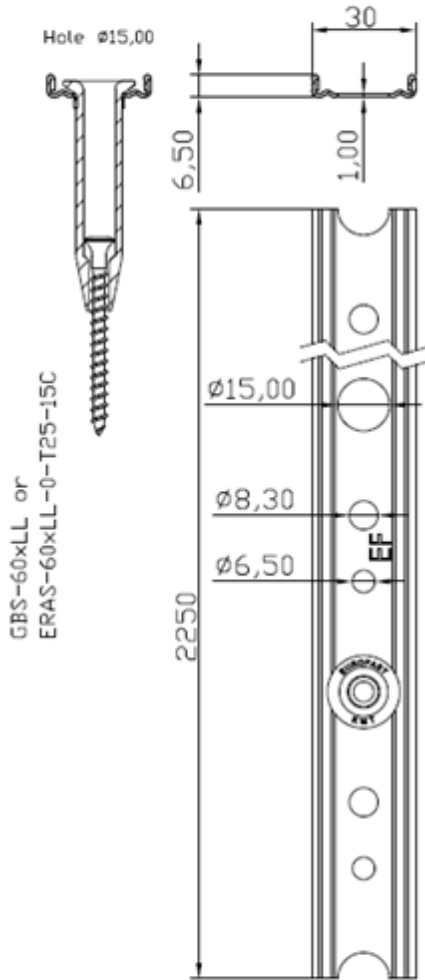


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex K.4</b>
GBS-60xLL (ERAS-60xLL-0-T25-15C)	



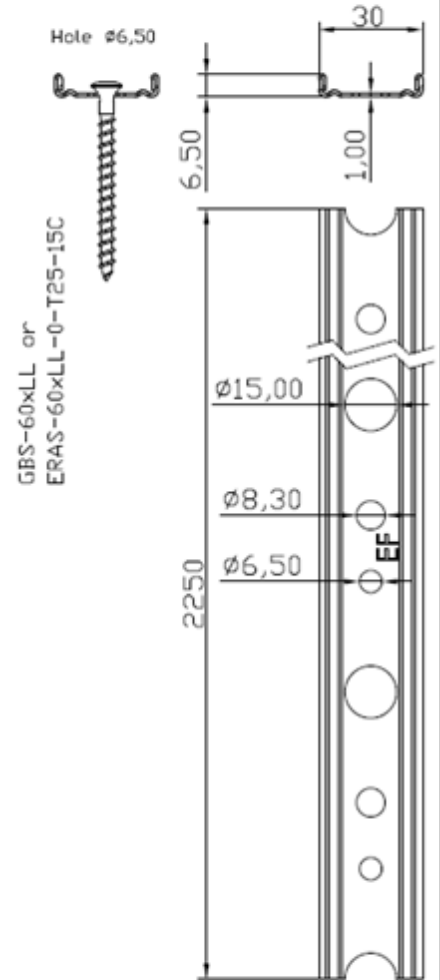
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex K.5</b>
GBS-60xLL (ERAS-60xLL-0-T25-15C)	

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



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

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

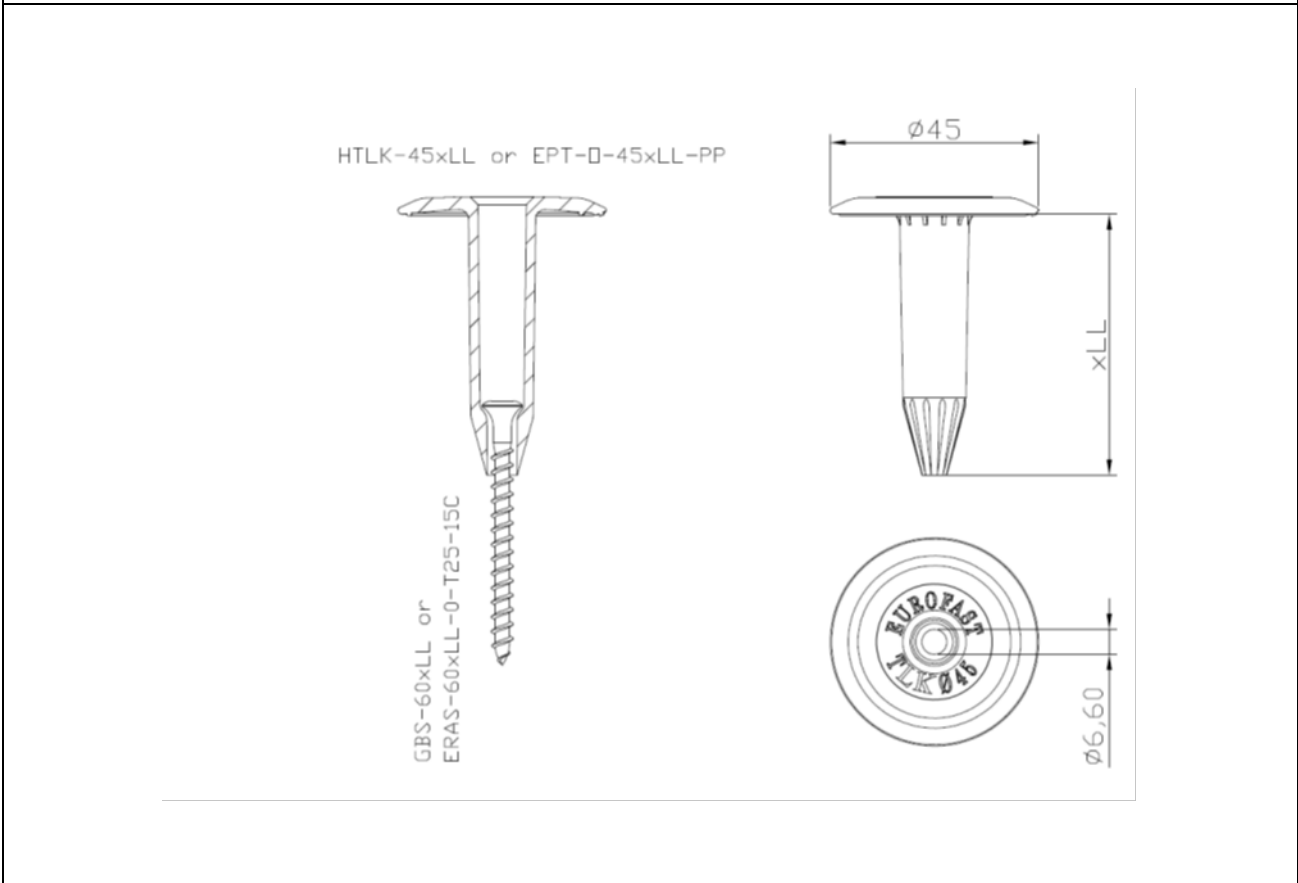
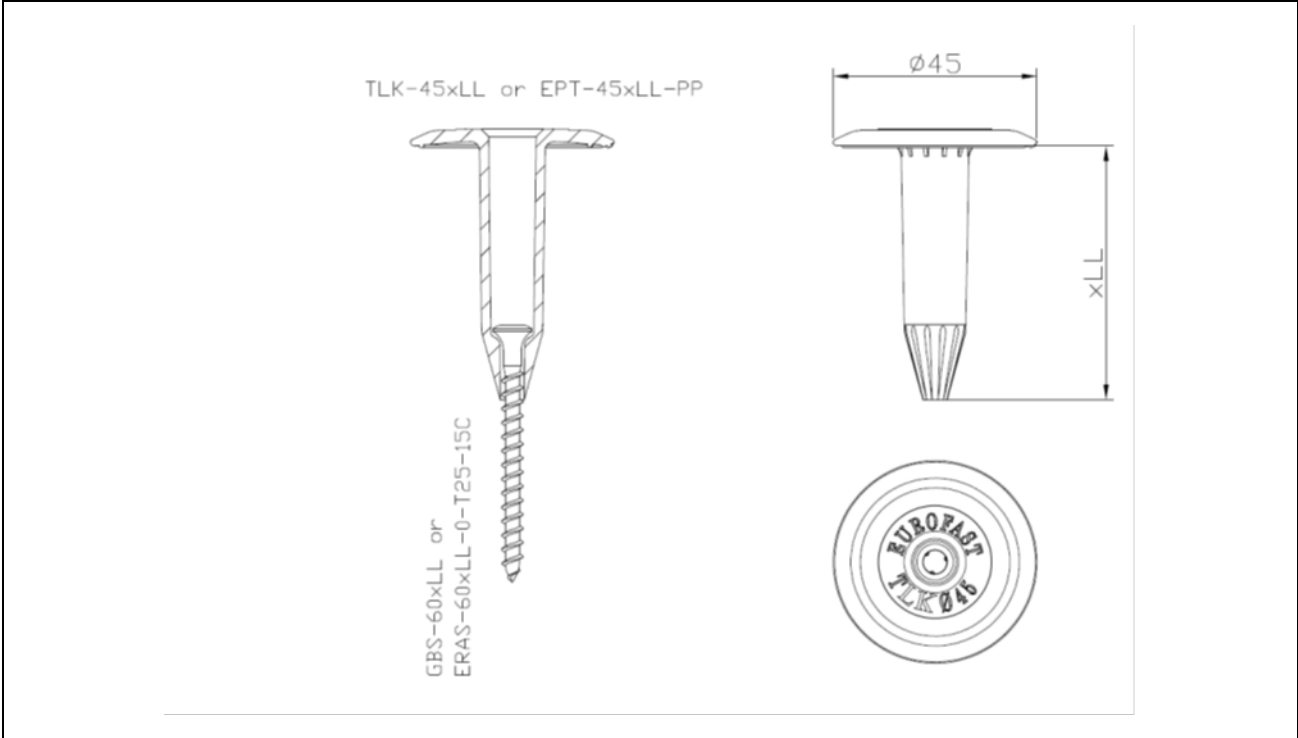


GBS-60xLL or  
ERAS-60xLL-0-T25-15C

**Eurofast Flat Roof Fasteners**

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

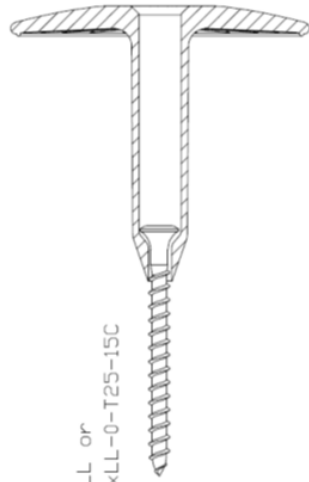
**Annex K.6**



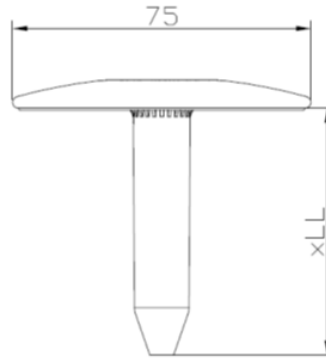
<b>Eurofast Flat Roof Fasteners</b>	<b>Annex K.7</b>
GBS-60xLL (ERAS-60xLL-0-T25-15C)	



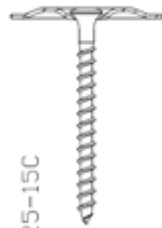
TLK-75xLL or EPT-75xLL-PP



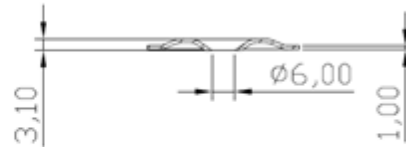
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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

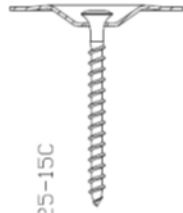


**Eurofast Flat Roof Fasteners**

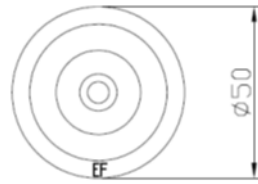
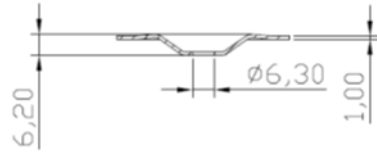
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.8**

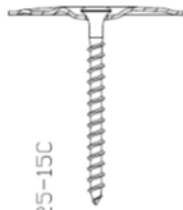
DVP-EF-5010D or EPM-50D-6.3-1.0



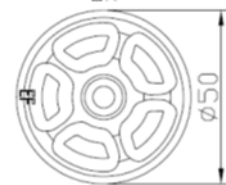
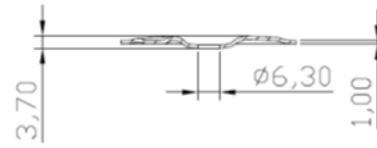
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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

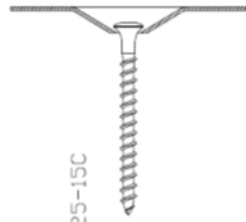


**Eurofast Flat Roof Fasteners**

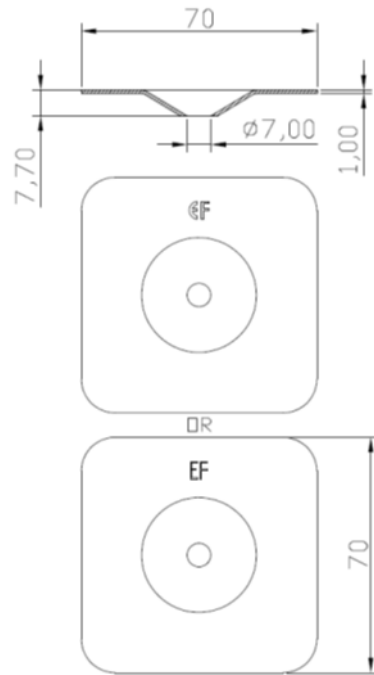
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.9**

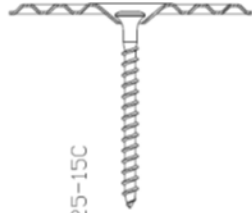
DVP-DF-7070D or EPM-7070D-7.0-1.0



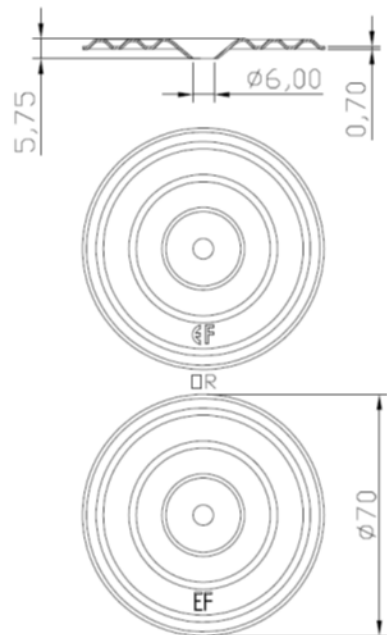
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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

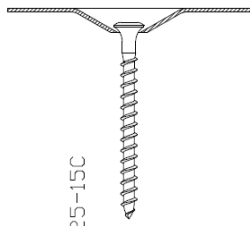


**Eurofast Flat Roof Fasteners**

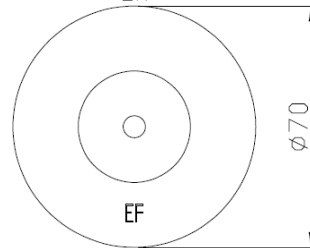
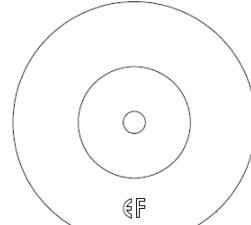
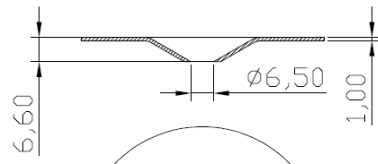
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.10**

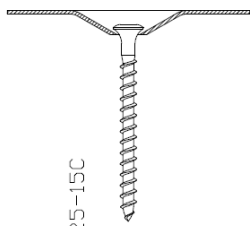
DVP-EF-7010D or EPM-70D-6.5-1.0



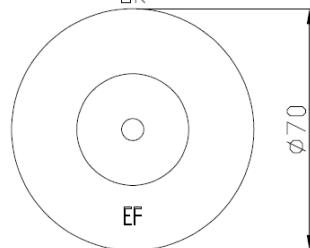
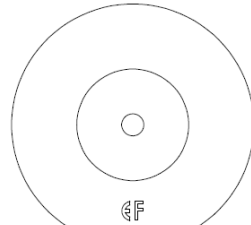
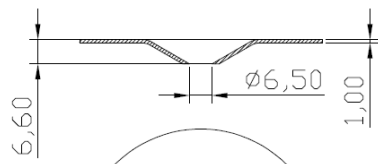
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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

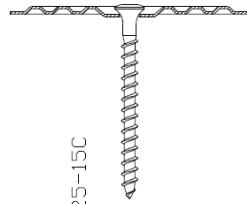


**Eurofast Flat Roof Fasteners**

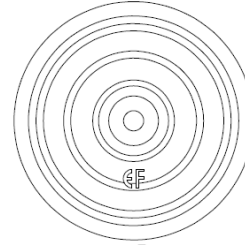
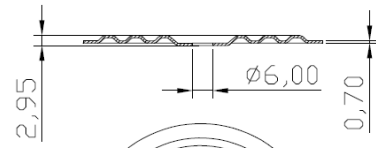
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.11**

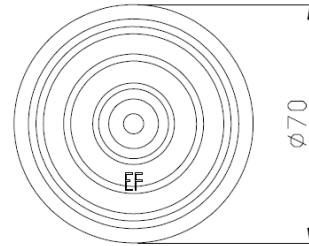
DVP-EF-7007N or EPM-70N-6.0-0.7



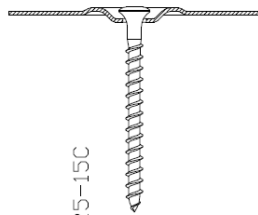
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



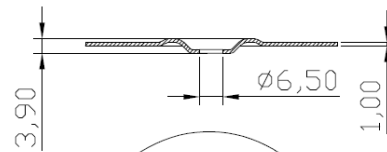
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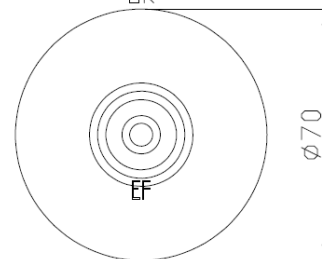
DVP-EF-7010N or EPM-70N-6.5-1.0



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



DR

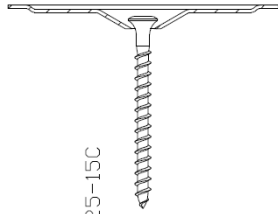


**Eurofast Flat Roof Fasteners**

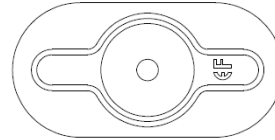
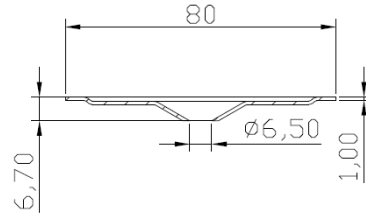
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.12**

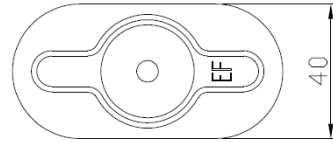
DVP-EF-8040D or EPM-8040D-6.5-1.0



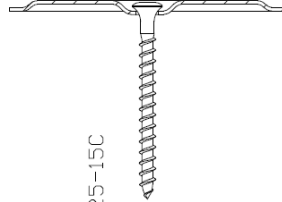
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



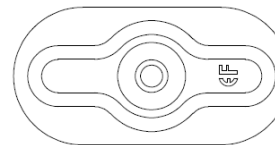
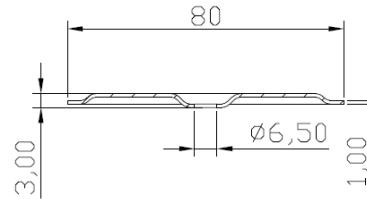
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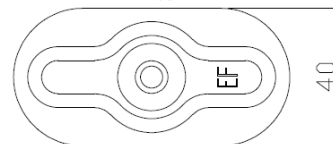
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GBS-60xLL or  
ERAS-60xLL-0-T25-15C



OR

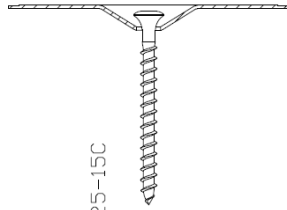


**Eurofast Flat Roof Fasteners**

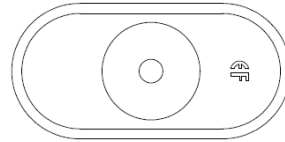
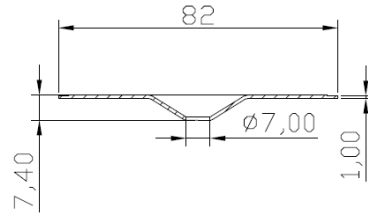
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.13**

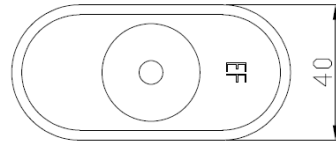
DVP-DF-8240D or EPM-8240D-7.00-1.0



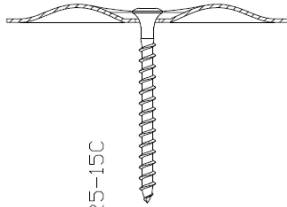
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



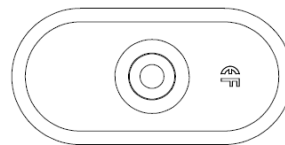
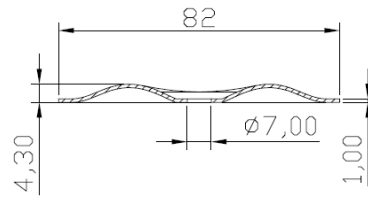
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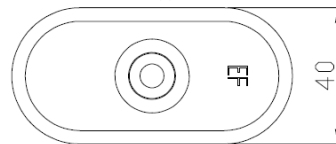
DVP-DF-8240H or EPM-8240H-7.00-1.0



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



DR

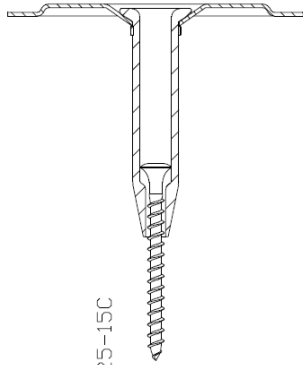


**Eurofast Flat Roof Fasteners**

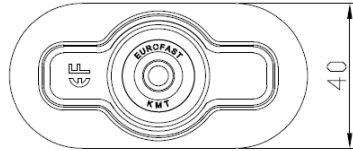
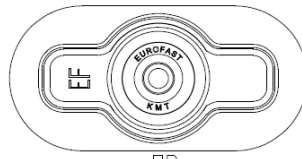
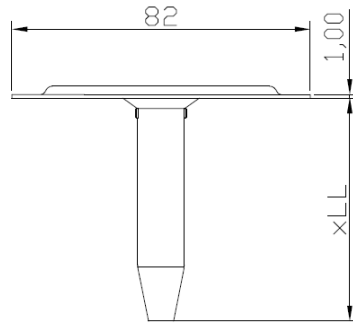
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.14**

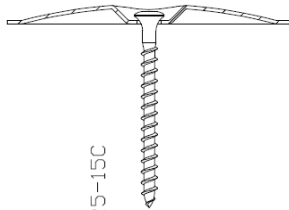
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



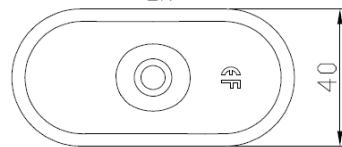
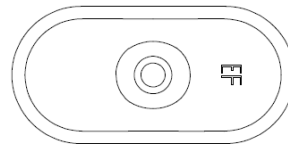
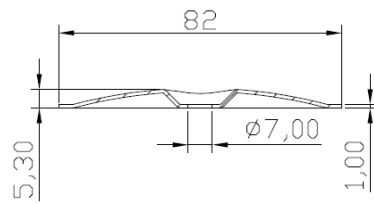
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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



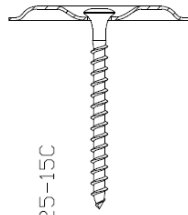
**Eurofast Flat Roof Fasteners**

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

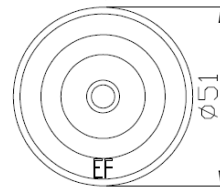
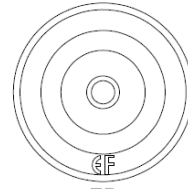
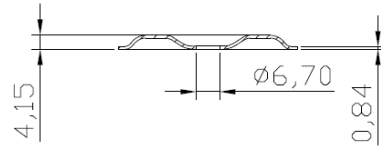
**Annex K.15**



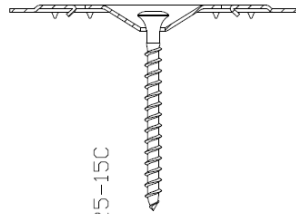
DVP-EF-51N or EPM-51N-6.7-0.84



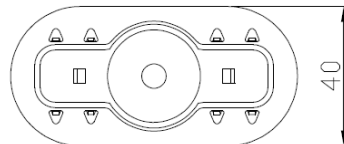
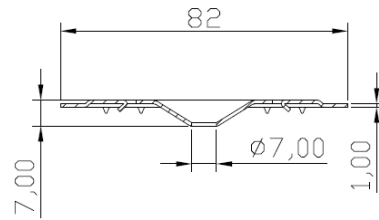
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



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

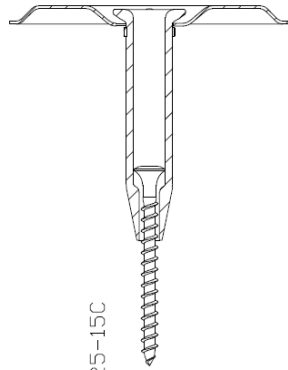


**Eurofast Flat Roof Fasteners**

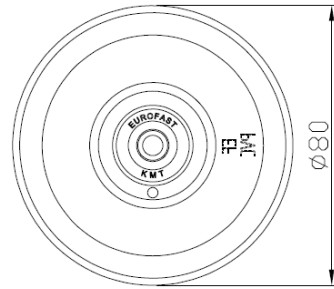
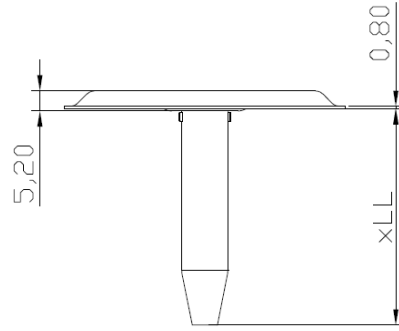
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.16**

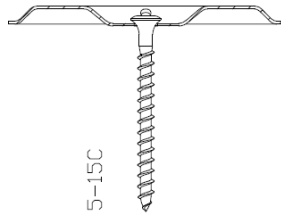
EPM-T-IP-80-13,6-0,8 + KMT-15xLL or  
 EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA



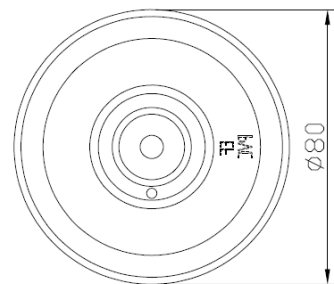
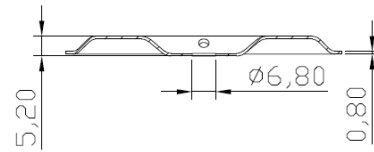
GBS-60xLL or  
 ERAS-60xLL-0-T25-15C



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



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

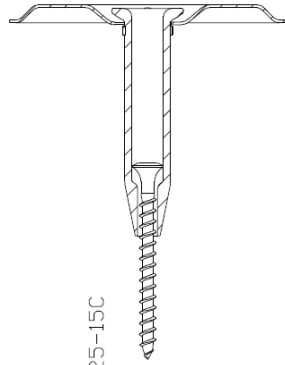


**Eurofast Flat Roof Fasteners**

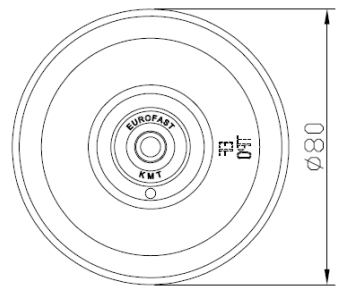
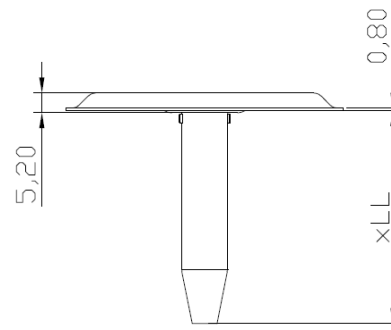
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.17**

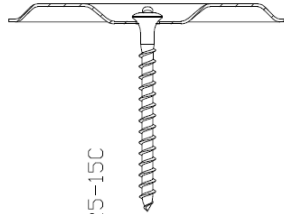
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



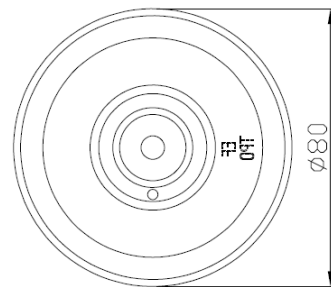
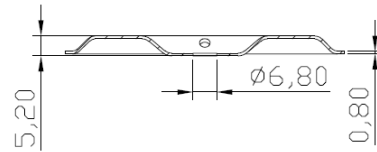
GBS-60xLL or  
 ERAS-60xLL-0-T25-15C



EPM-IT-80-6.8-0.8



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

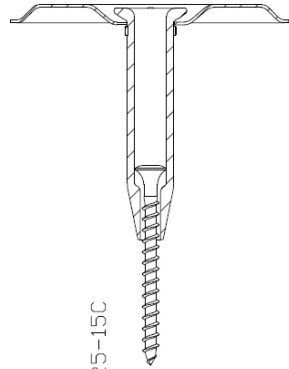


**Eurofast Flat Roof Fasteners**

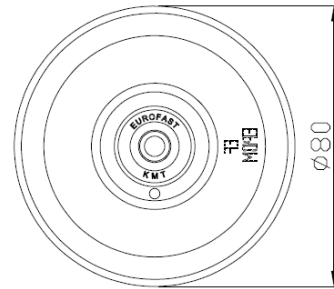
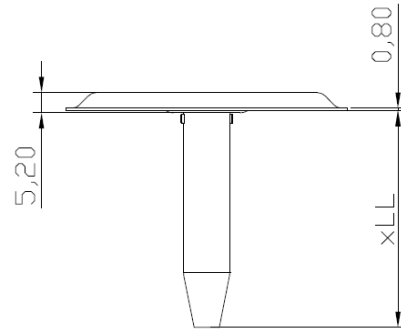
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.18**

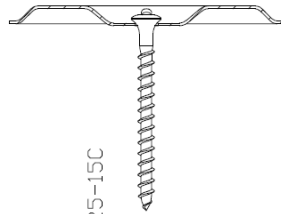
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



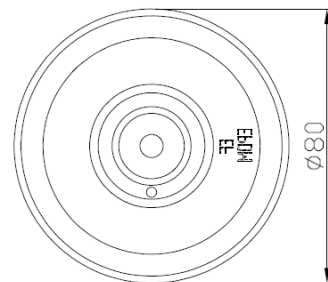
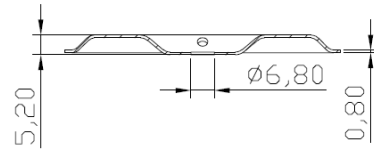
GBS-60xLL or  
 ERAS-60xLL-0-T25-15C



EPM-IE-80-6.8-0.8



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

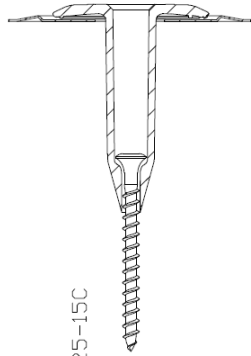


**Eurofast Flat Roof Fasteners**

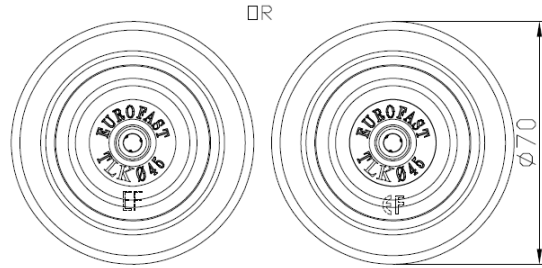
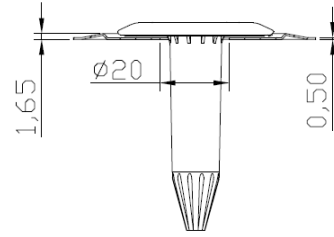
GBS-60xLL (ERAS-60xLL-0-T25-15C)

**Annex K.19**

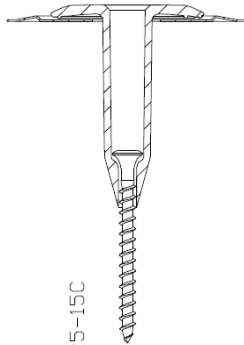
DVP-DL-70N + TLK-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



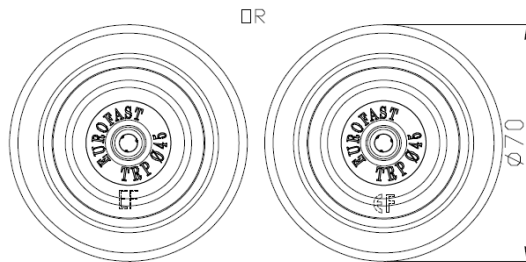
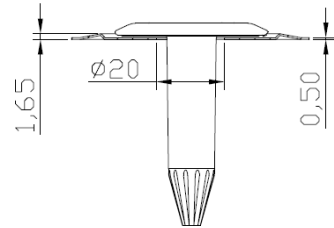
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



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



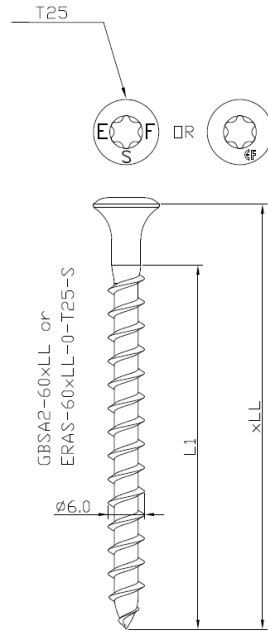
GBS-60xLL or  
ERAS-60xLL-0-T25-15C



**Eurofast Flat Roof Fasteners**

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

**Annex K.20**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)									
	Autoclaved aerated concrete AAC 600 kg/m <sup>3</sup>	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 Figures 4 and 5 of UKAD 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)

### Annex L.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex L.2</b>
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	

**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 <sup>3</sup>	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:**

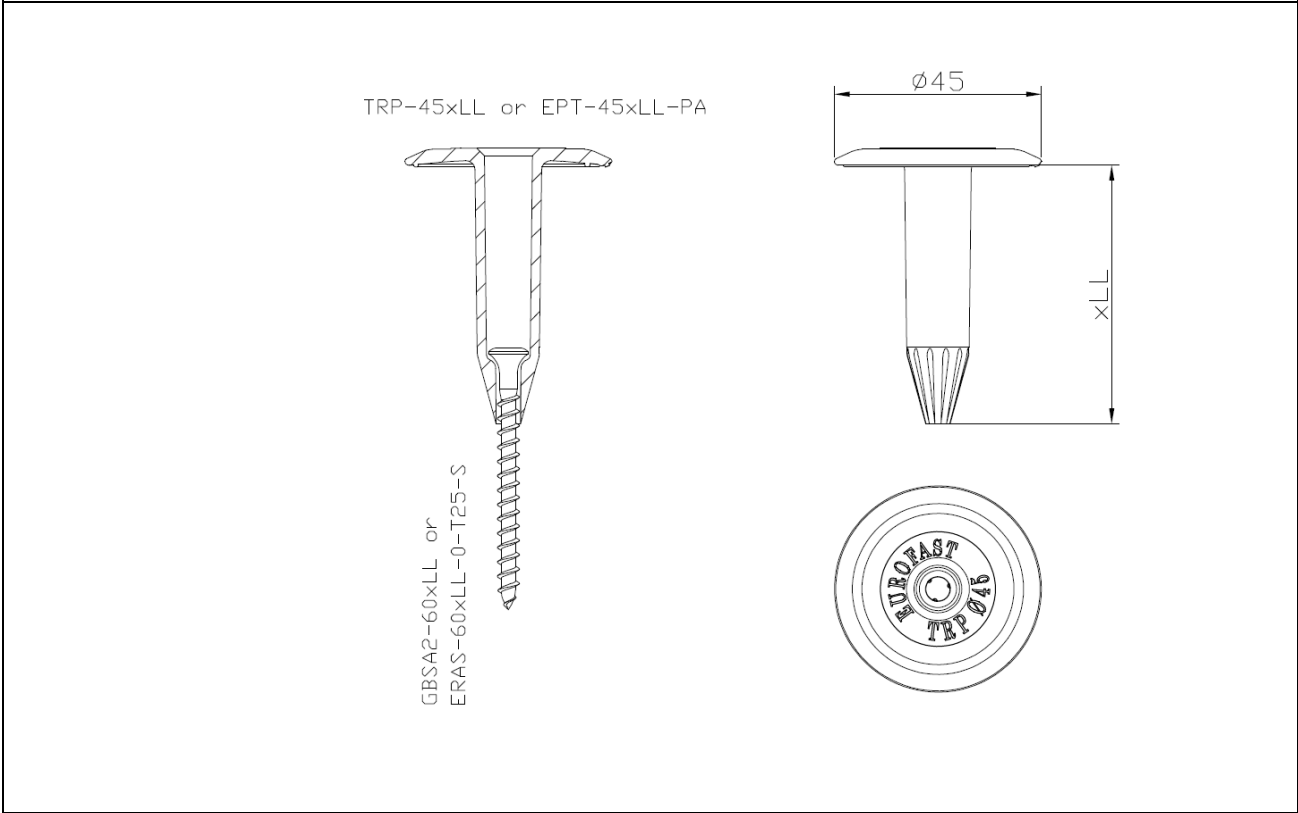
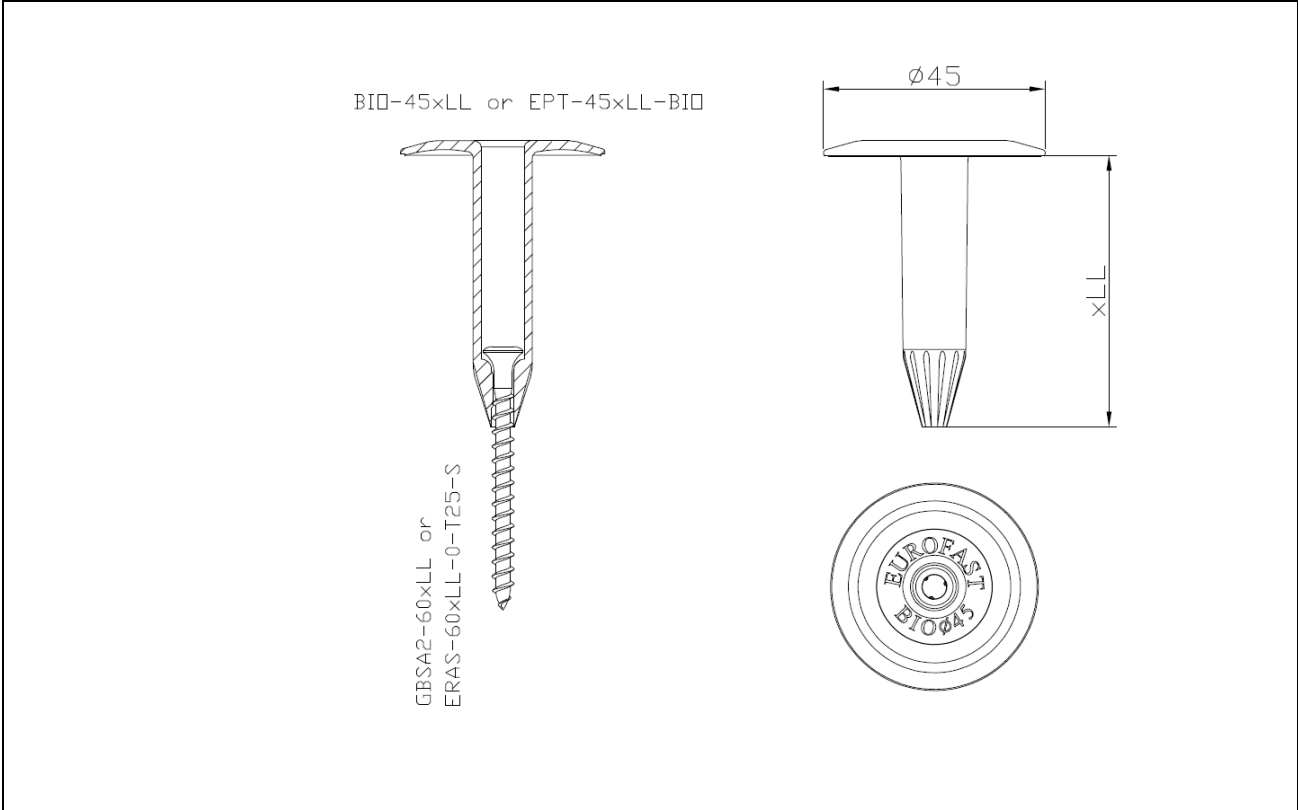
HUKAD type:	Raised Bugle HUKAD
Recess:	TX25
Effective anchoring depth in autoclaved aerated concrete substrate $h_{ef}$ :	$\geq 60 \text{ mm}$
Fixing in wooden and wood-based substrate:	Full thread through the substrate or minimum embedment depth
Installation force of installation tool in autoclaved 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)

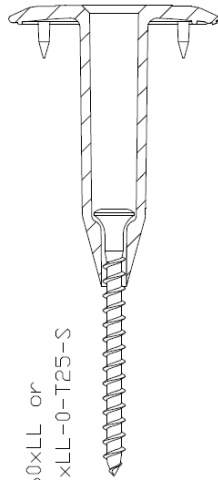
**Annex L.3**



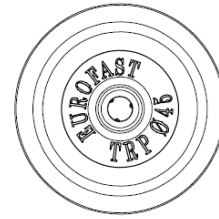
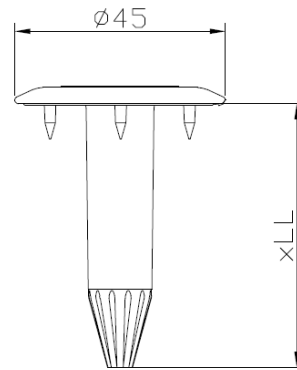


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex L.4</b>
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	

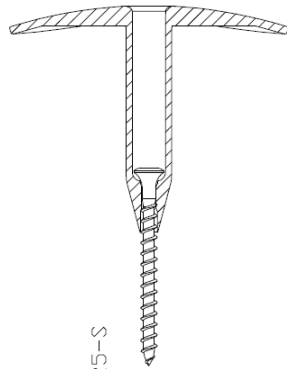
BTRP-45xLL or EPT-B-45xLL-PA



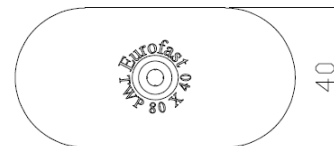
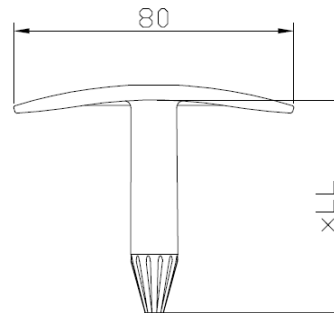
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



TWP-8040xLL or EPT-8040xLL-PA



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

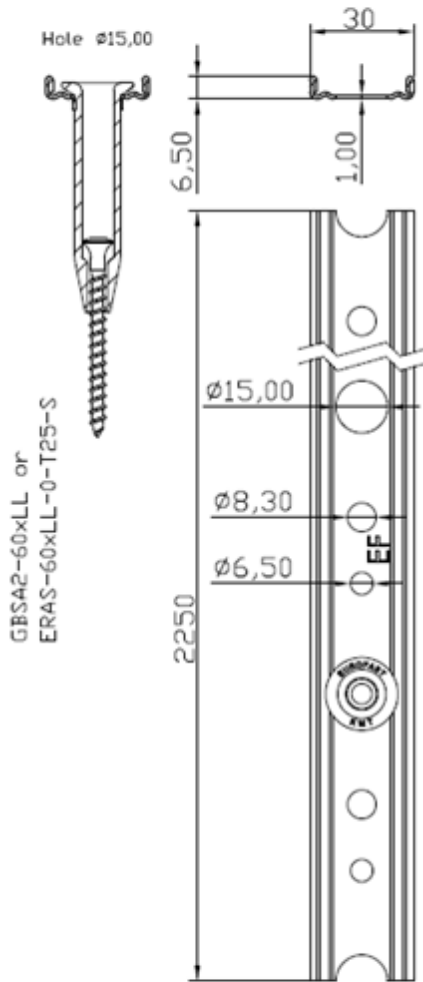


**Eurofast Flat Roof Fasteners**

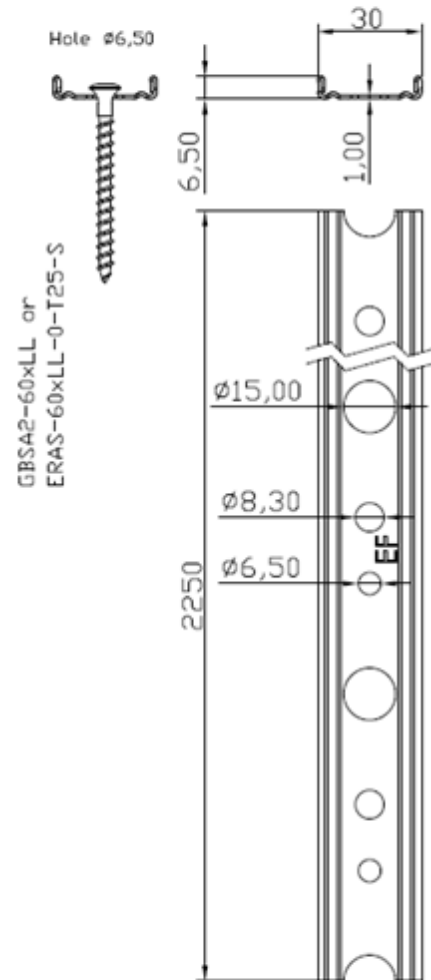
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.5**

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

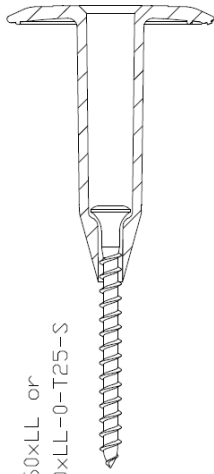


**Eurofast Flat Roof Fasteners**

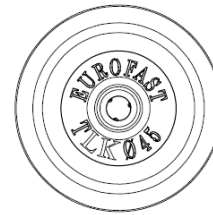
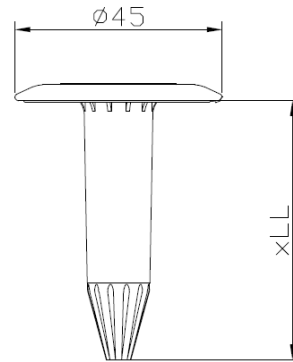
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.6**

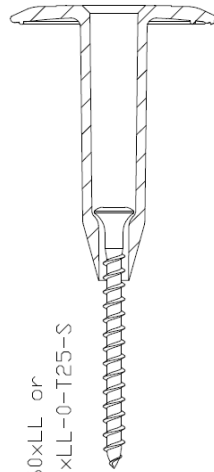
TLK-45xLL or EPT-45xLL-PP



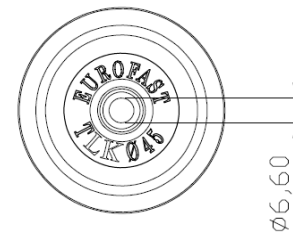
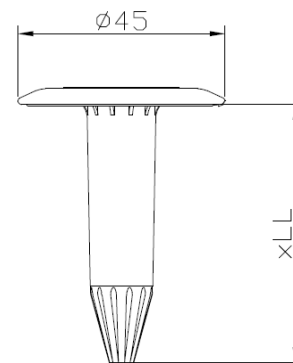
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



HTLK-45xLL or EPT-□-45xLL-PP



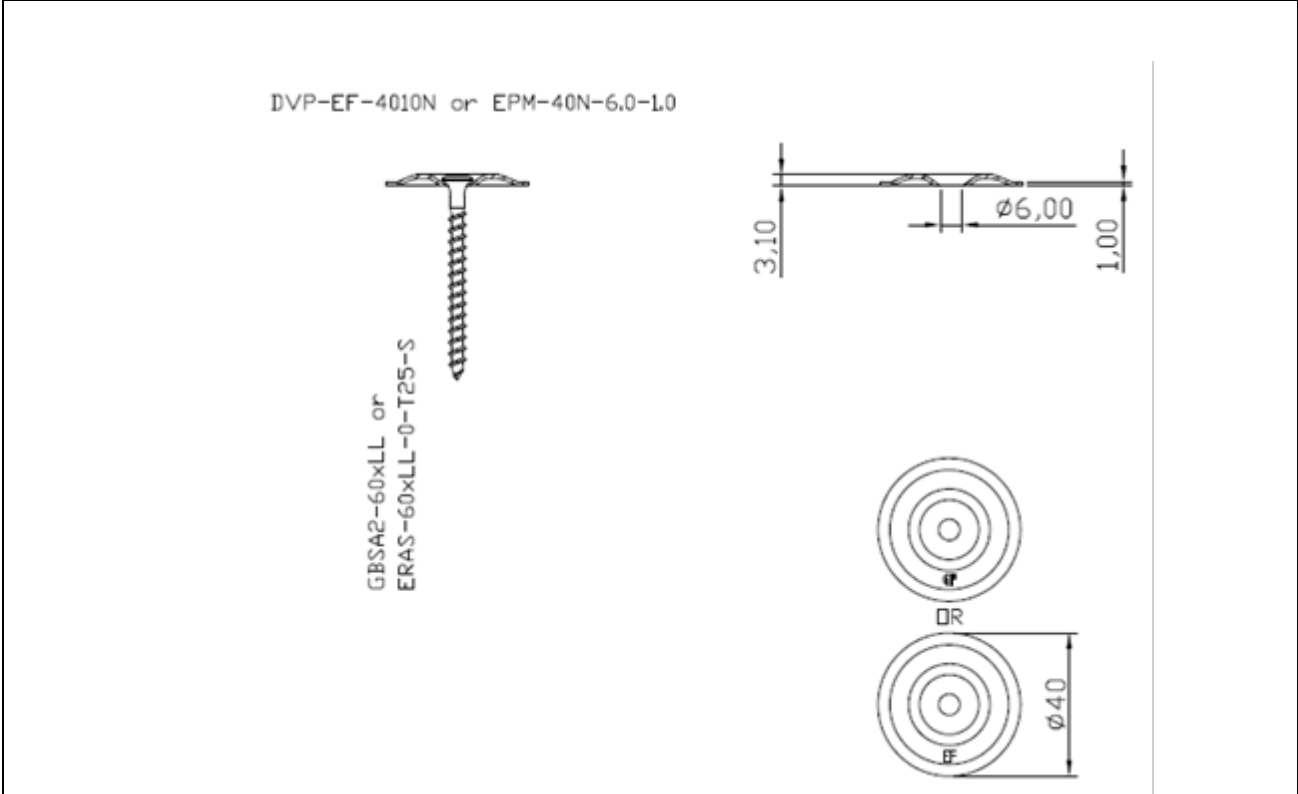
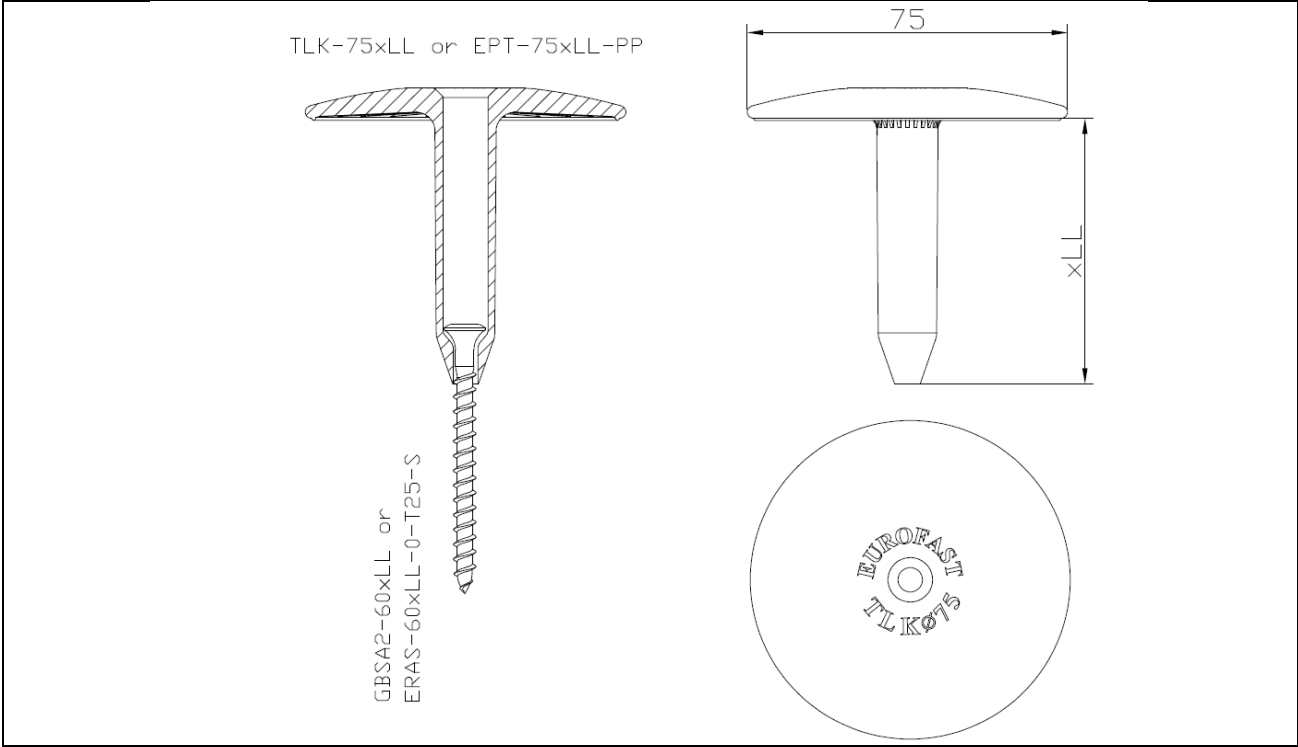
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



**Eurofast Flat Roof Fasteners**

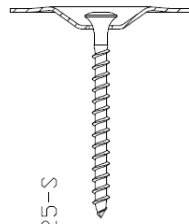
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.7**

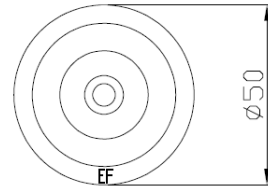
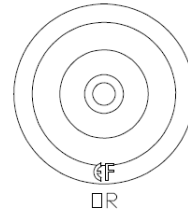
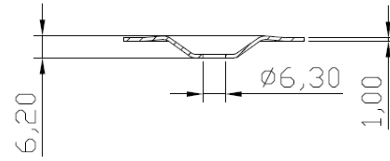


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex L.8</b>
GBSA2-60xLL (ERAS-60xLL-0-T25-S)	

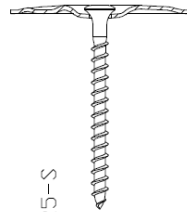
DVP-EF-5010D or EPM-50D-6.3-1.0



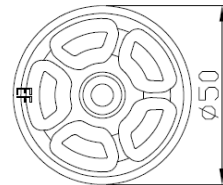
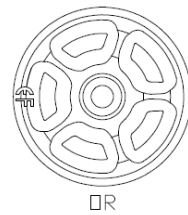
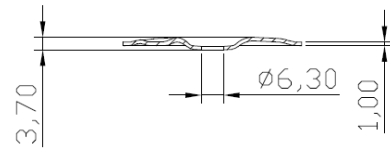
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



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



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

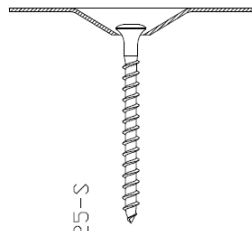


**Eurofast Flat Roof Fasteners**

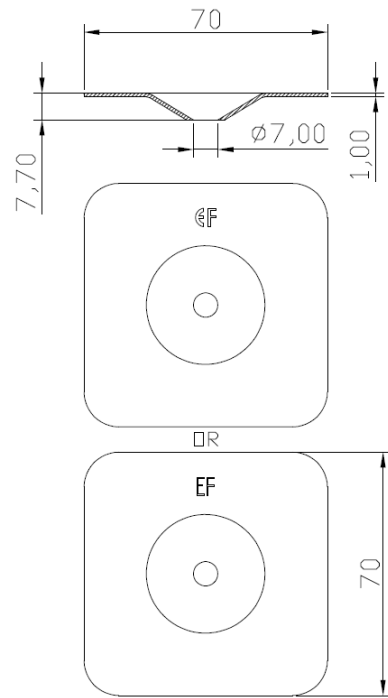
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.9**

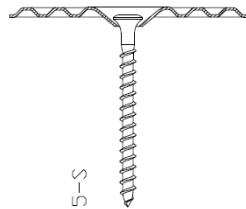
DVP-DF-7070D or EPM-7070D-7.0-1.0



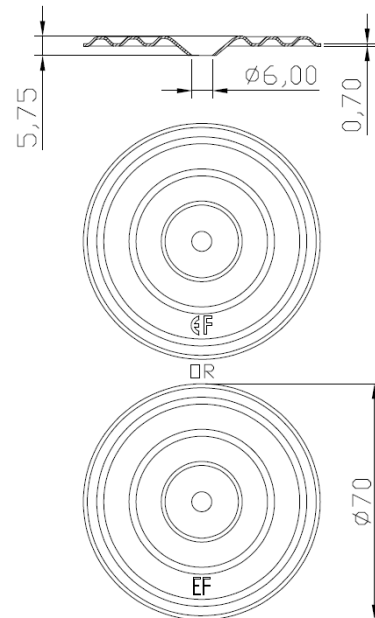
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



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



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

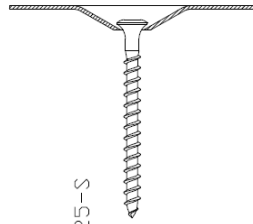


**Eurofast Flat Roof Fasteners**

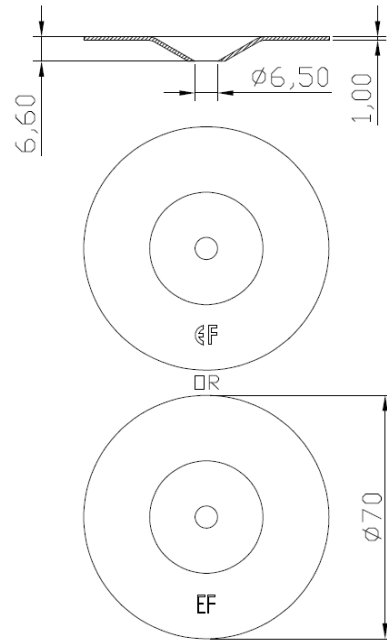
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.10**

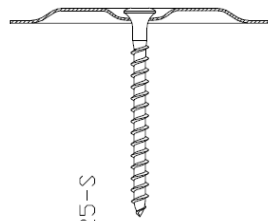
DVP-EF-7010D or EPM-70D-6.5-1.0



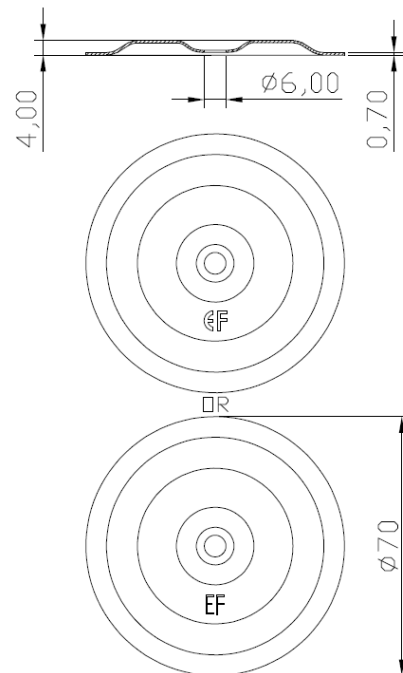
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



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



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



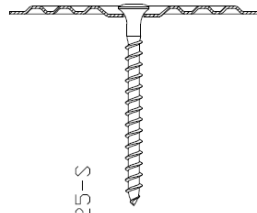
**Eurofast Flat Roof Fasteners**

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

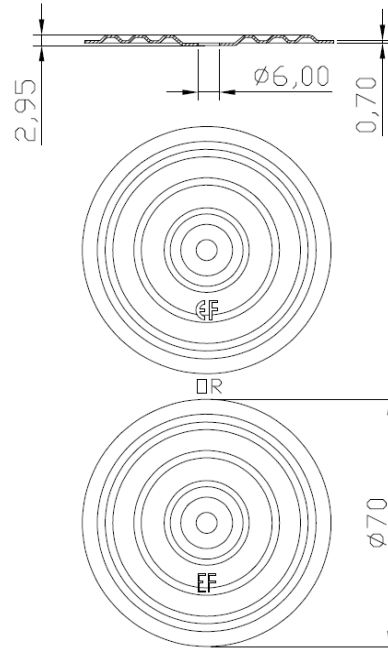
**Annex L.11**



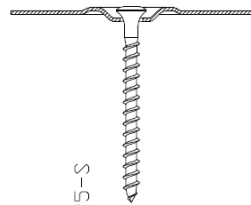
DVP-EF-7007N or EPM-70N-6.0-0,7



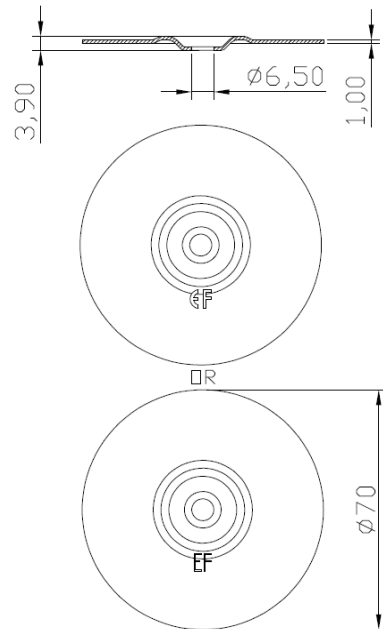
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



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



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

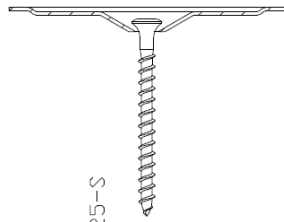


**Eurofast Flat Roof Fasteners**

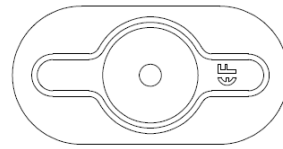
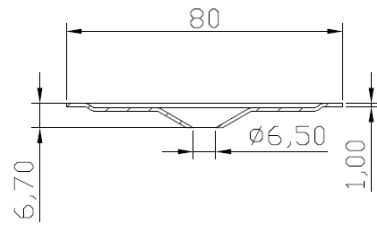
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.12**

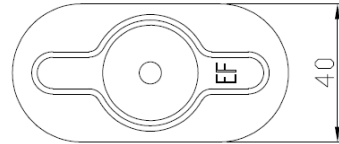
DVP-EF-8040D or EPM-8040D-6,5-1,0



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

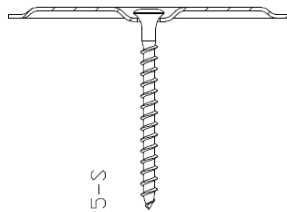


DR

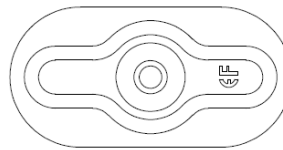
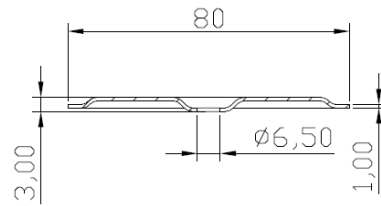


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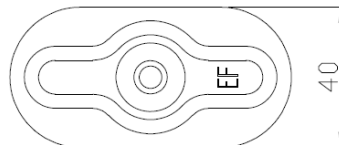
DVP-EF-8040N or EPM-8040N-6,5-1,0



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



DR



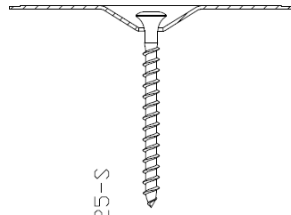
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**Eurofast Flat Roof Fasteners**

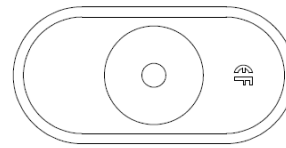
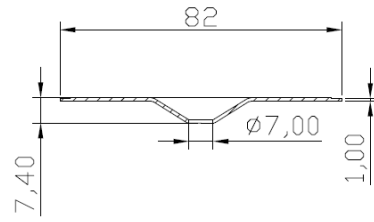
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.13**

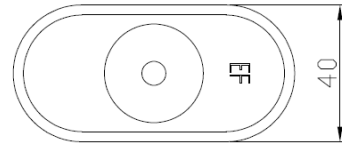
DVP-DF-8240D or EPM-8240D-7.00-1.0



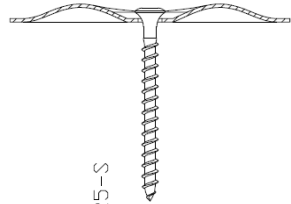
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



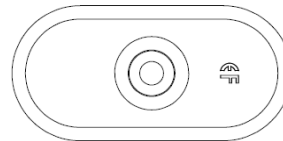
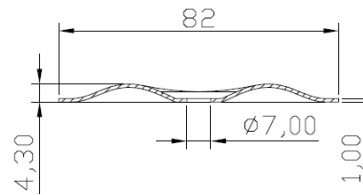
DR



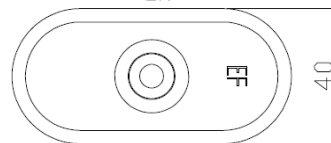
DVP-DF-8240H or EPM-8240H-7.0-1.0



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



DR

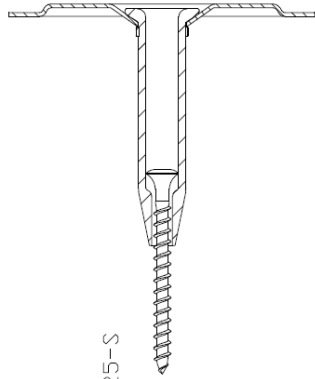


**Eurofast Flat Roof Fasteners**

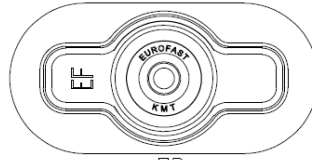
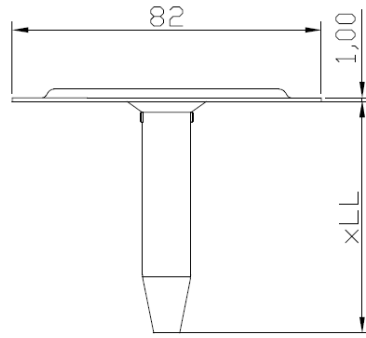
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.14**

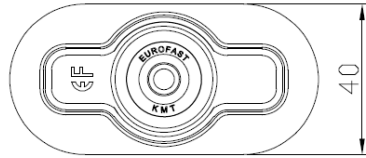
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



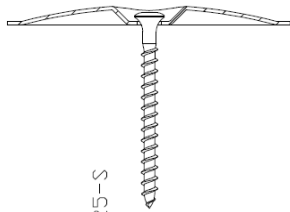
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



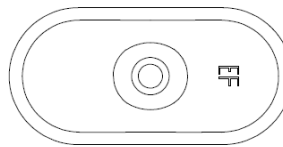
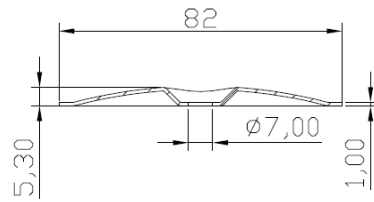
OR



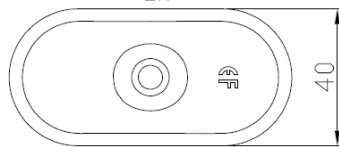
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



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



OR

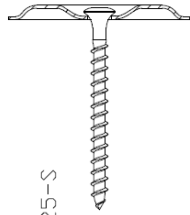


**Eurofast Flat Roof Fasteners**

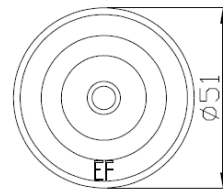
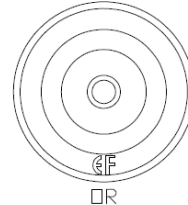
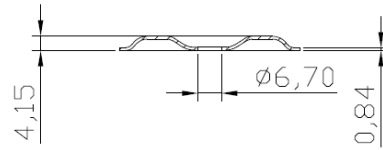
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.15**

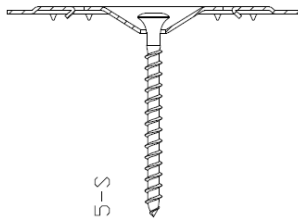
DVP-EF-51N or EPM-51N-6.7-0.84



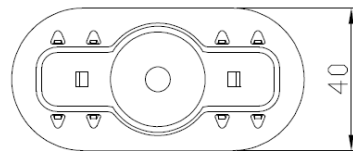
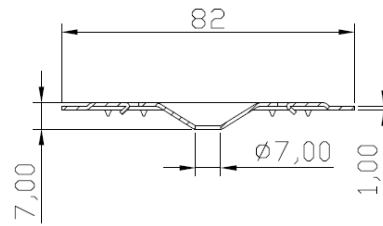
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



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



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

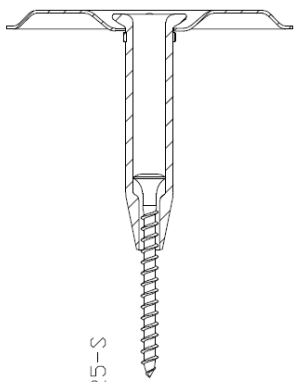


**Eurofast Flat Roof Fasteners**

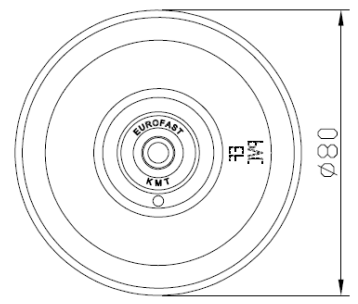
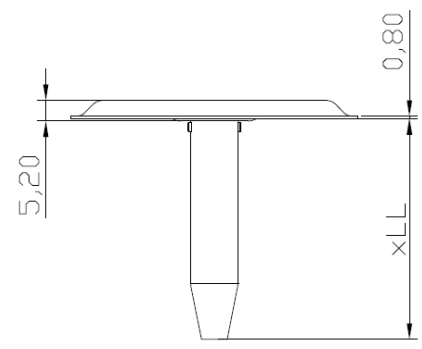
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.16**

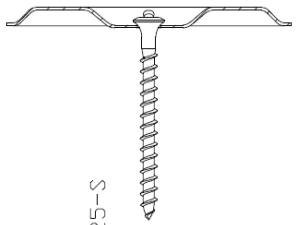
EPM-T-IP-80-13,6-0,8 + KMT-15xLL or  
 EPM-T-IP-80-13,6-0,8 + EPT-15xLL-PA



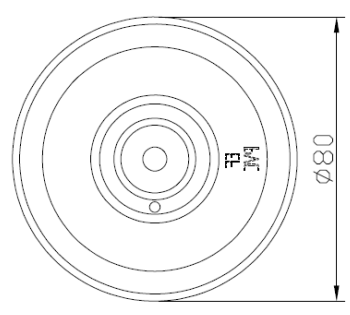
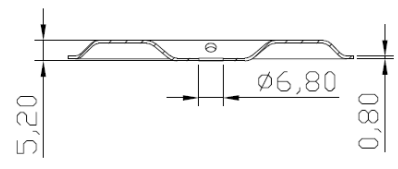
GBSA2-60xLL or  
 ERAS-60xLL-0-T25-S



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



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

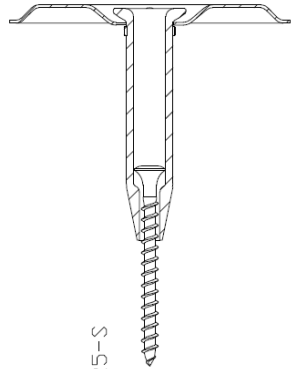


**Eurofast Flat Roof Fasteners**

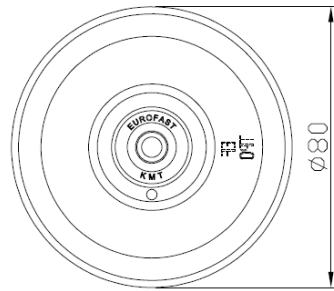
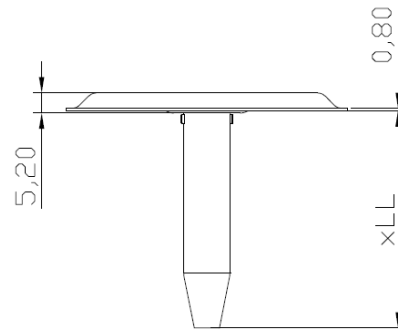
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.17**

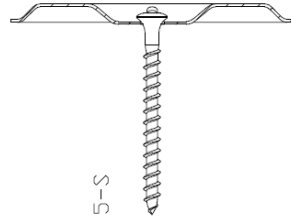
EPM-T-IT-80-13,6-0,8 + KMT-15xLL or  
 EPM-T-IT-80-13,6-0,8 + EPT-15xLL-PA



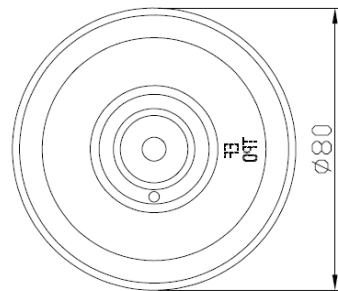
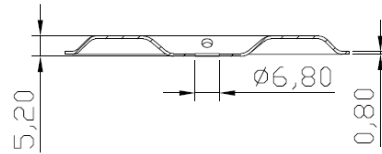
GBSA2-60xLL or  
 ERAS-60xLL-0-T25-S



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



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

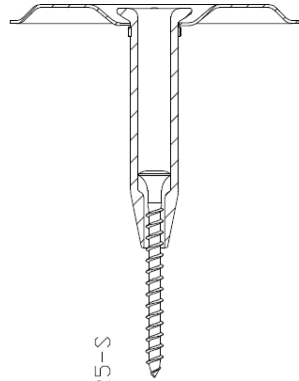


**Eurofast Flat Roof Fasteners**

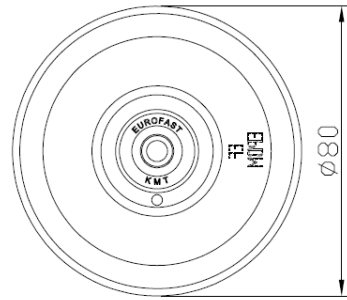
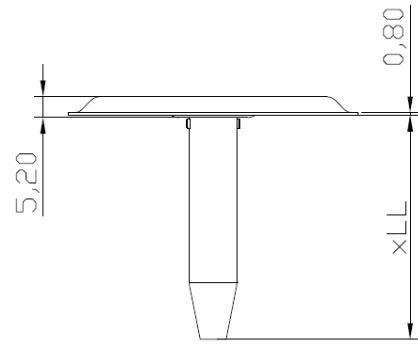
GBSA2-60xLL (ERAS-60xLL-0-T25-S)

**Annex L.18**

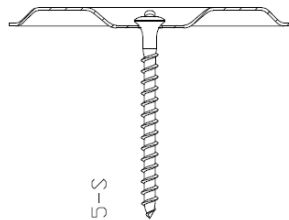
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



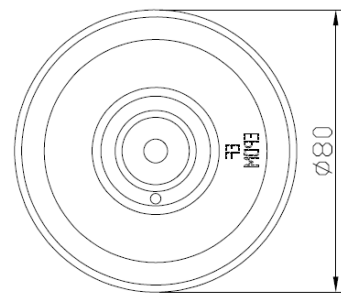
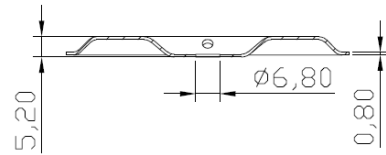
GBSA2-60xLL or  
 ERAS-60xLL-0-T25-S



EPM-IE-80-6.8-0.8



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



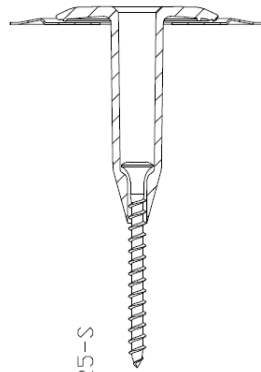
**Eurofast Flat Roof Fasteners**

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

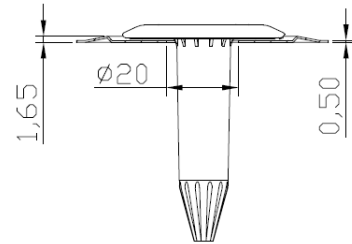
**Annex L.19**



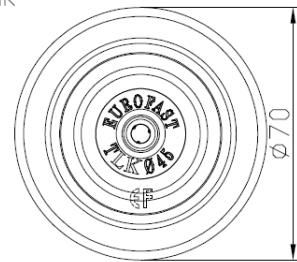
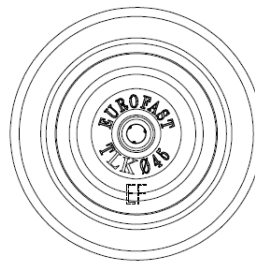
DVP-DL-70N + TLK-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



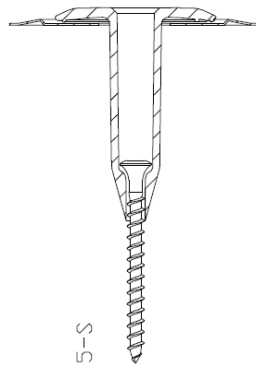
GBSA2-60xLL or  
ERAS-60xLL-0-T25-S



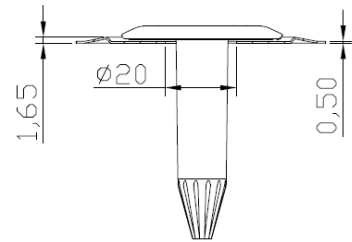
OR



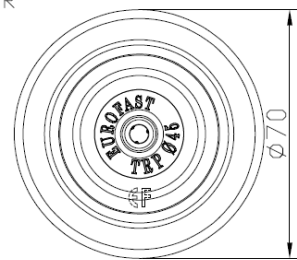
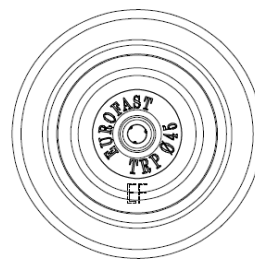
DVP-DL-70N + TRP-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PA



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



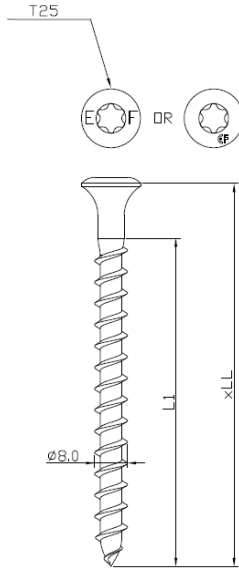
OR



**Eurofast Flat Roof Fasteners**

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

**Annex L.20**



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

Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 030351-00-0402)					
	Autoclaved aerated concrete AAC 450 kg/m <sup>3</sup>	Autoclaved aerated concrete AAC 550 kg/m <sup>3</sup>	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 Figures 4 and 5 of UKAD 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

**Eurofast Flat Roof Fasteners**

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

**Annex M.1**

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

**Installation data:**

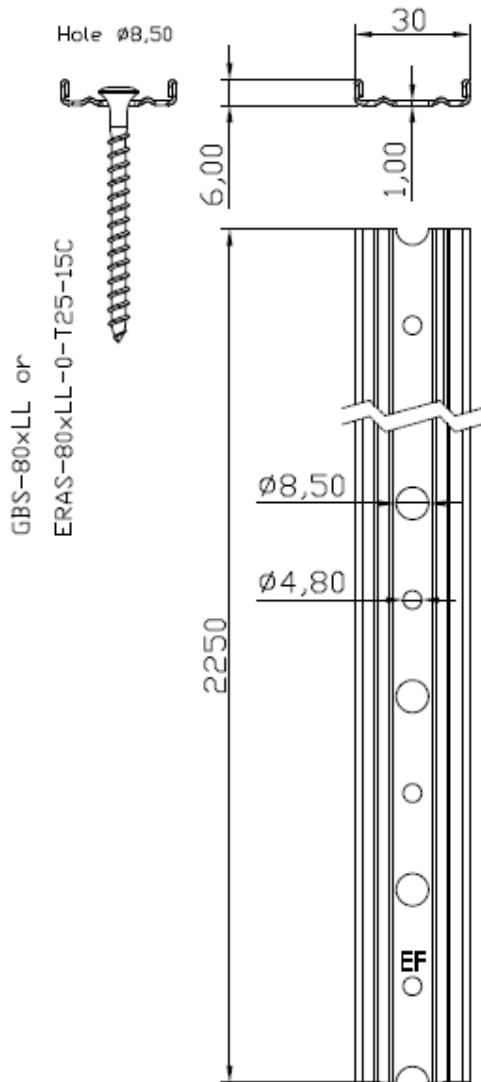
HUKAD type:	Raised Bugle HUKAD
Recess:	TX25
Effective anchoring depth in autoclaved aerated concrete substrate $h_{ef}$ :	$\geq 60$ mm
Effective anchoring depth in concrete substrate $h_{ef}$ :	$\geq 25$ mm
Concrete drill diameter:	6,0 mm
Drilled hole depth in concrete:	$h_{ef} + 12$ mm
Fixing in wooden 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

**Eurofast Flat Roof Fasteners**

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

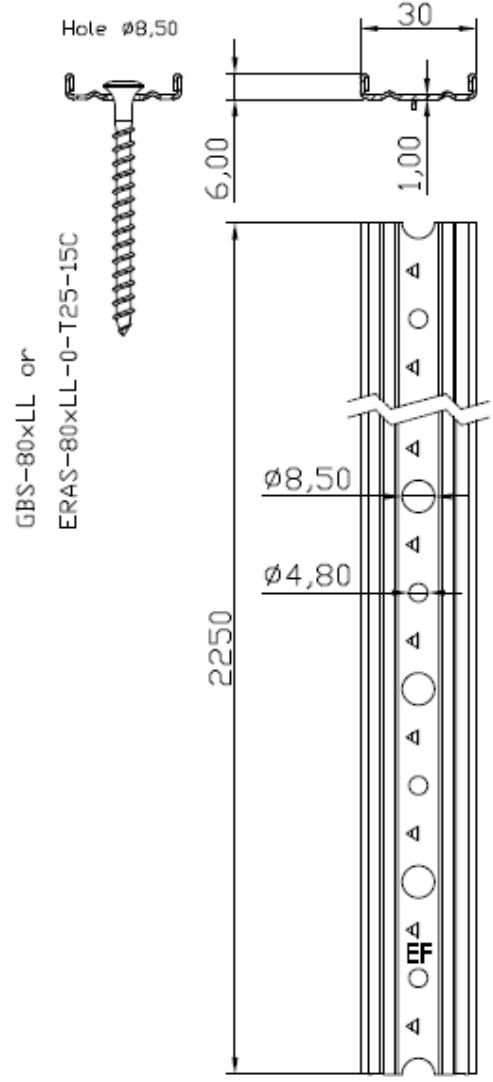
**Annex M.2**

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



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

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



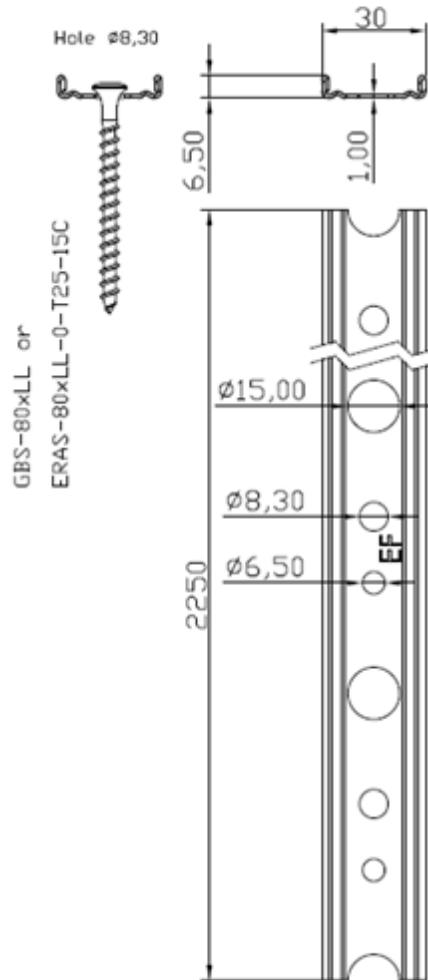
GBS-80xLL or  
ERAS-80xLL-0-T25-15C

**Eurofast Flat Roof Fasteners**

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

**Annex M.3**

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

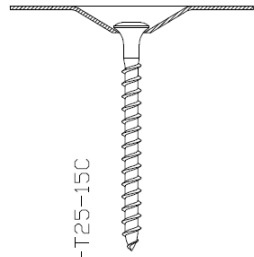


**Eurofast Flat Roof Fasteners**

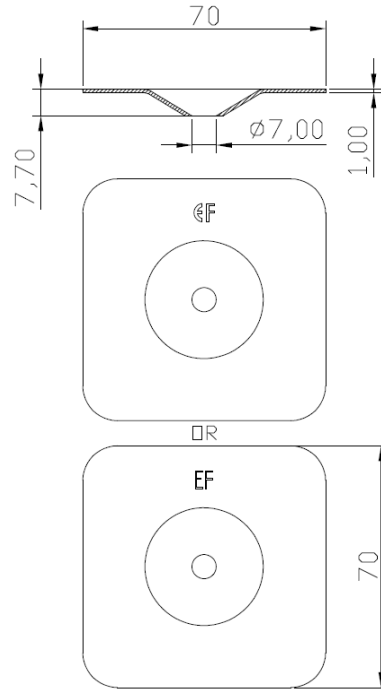
GBS-80xLL (ERAS-80xLL-0-T25-15C)

**Annex M.4**

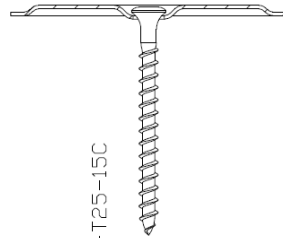
DVP-DF-7070D or EPM-7070D-7.0-1.0



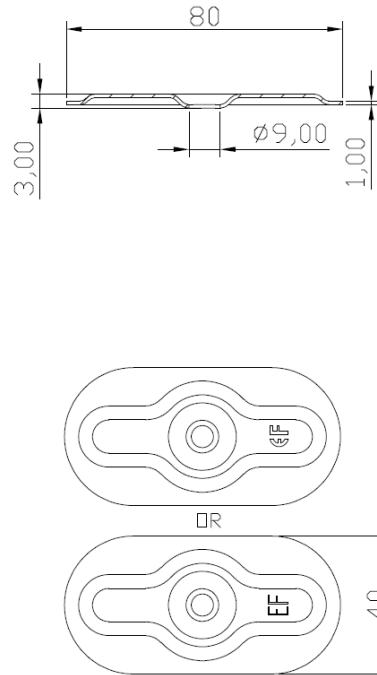
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



DVP-EF-8040N-9 or EPM-8040N-9.0-1.0



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

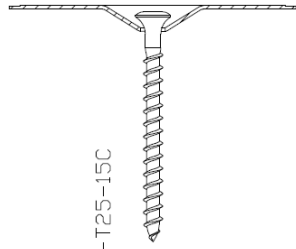


**Eurofast Flat Roof Fasteners**

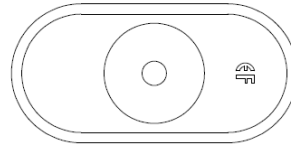
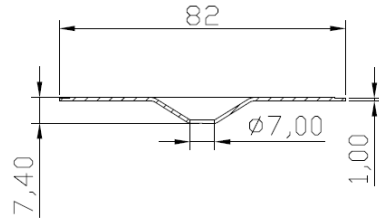
GBS-80xLL (ERAS-80xLL-0-T25-15C)

**Annex M.5**

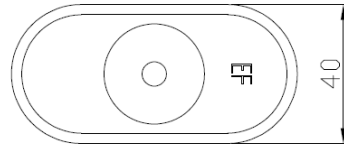
DVP-DF-8240D or EPM-8240D-7.00-1.0



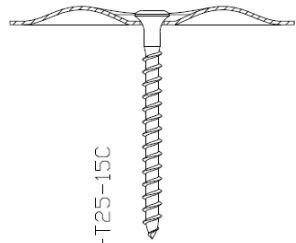
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



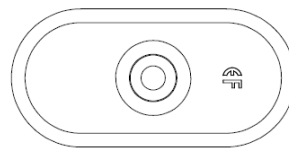
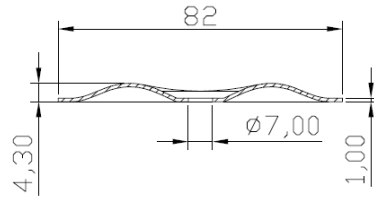
DR



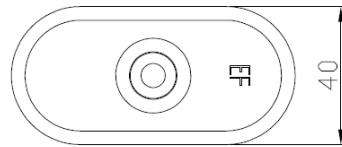
DVP-DF-8240H or EPM-8240H-7.0-1.0



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



DR

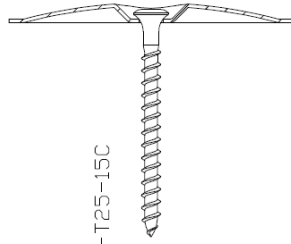


**Eurofast Flat Roof Fasteners**

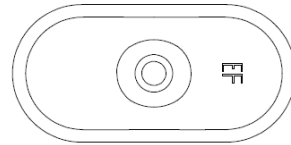
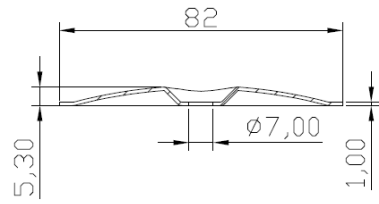
GBS-80xLL (ERAS-80xLL-0-T25-15C)

**Annex M.6**

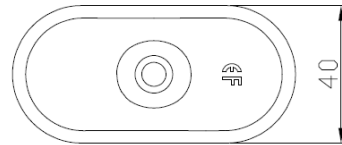
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



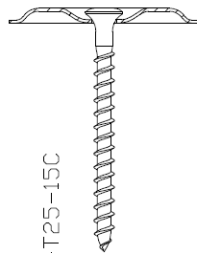
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



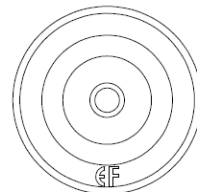
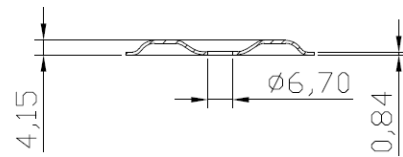
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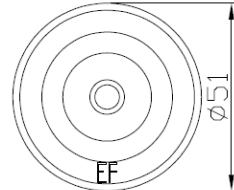
DVP-EF-51N or EPM-51N-6.7-0.84



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



OR



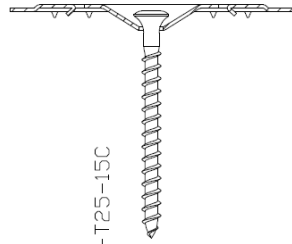
**Eurofast Flat Roof Fasteners**

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

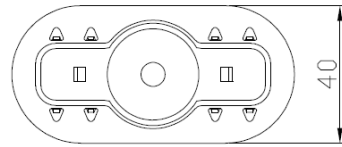
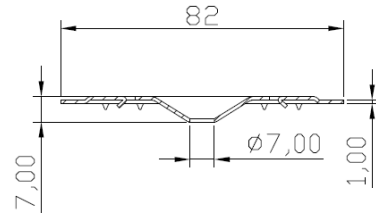
**Annex M.7**



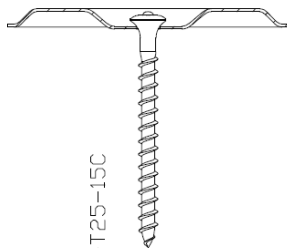
DVP-DFB-8240D or EPM-B-8240D-7.0-1.0



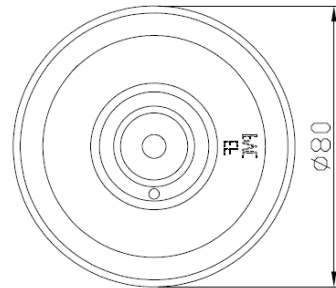
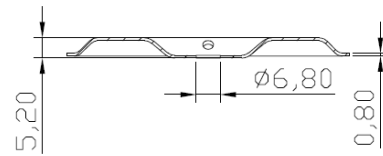
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



EPM-IP-80-6.8-0.8



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

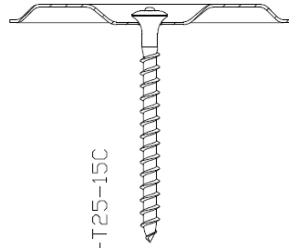


**Eurofast Flat Roof Fasteners**

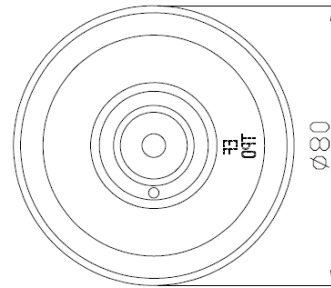
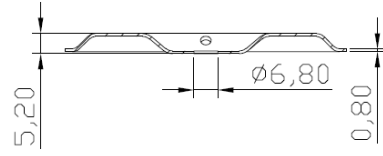
GBS-80xLL (ERAS-80xLL-0-T25-15C)

**Annex M.8**

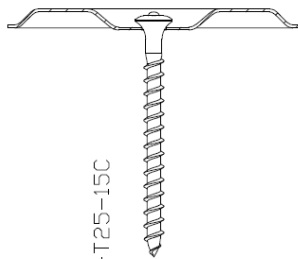
EPM-IT-80-6.8-0.8



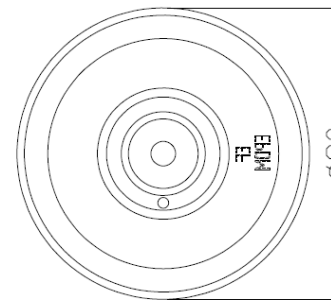
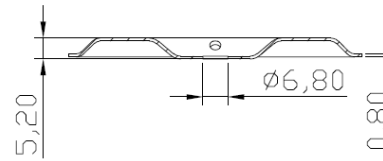
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



EPM-IE-80-6.8-0.8



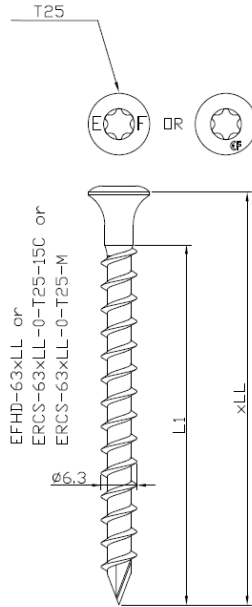
GBS-80xLL or  
ERAS-80xLL-0-T25-15C



**Eurofast Flat Roof Fasteners**

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

**Annex M.9**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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)

### Annex N.1

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex N.2</b>
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	

**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

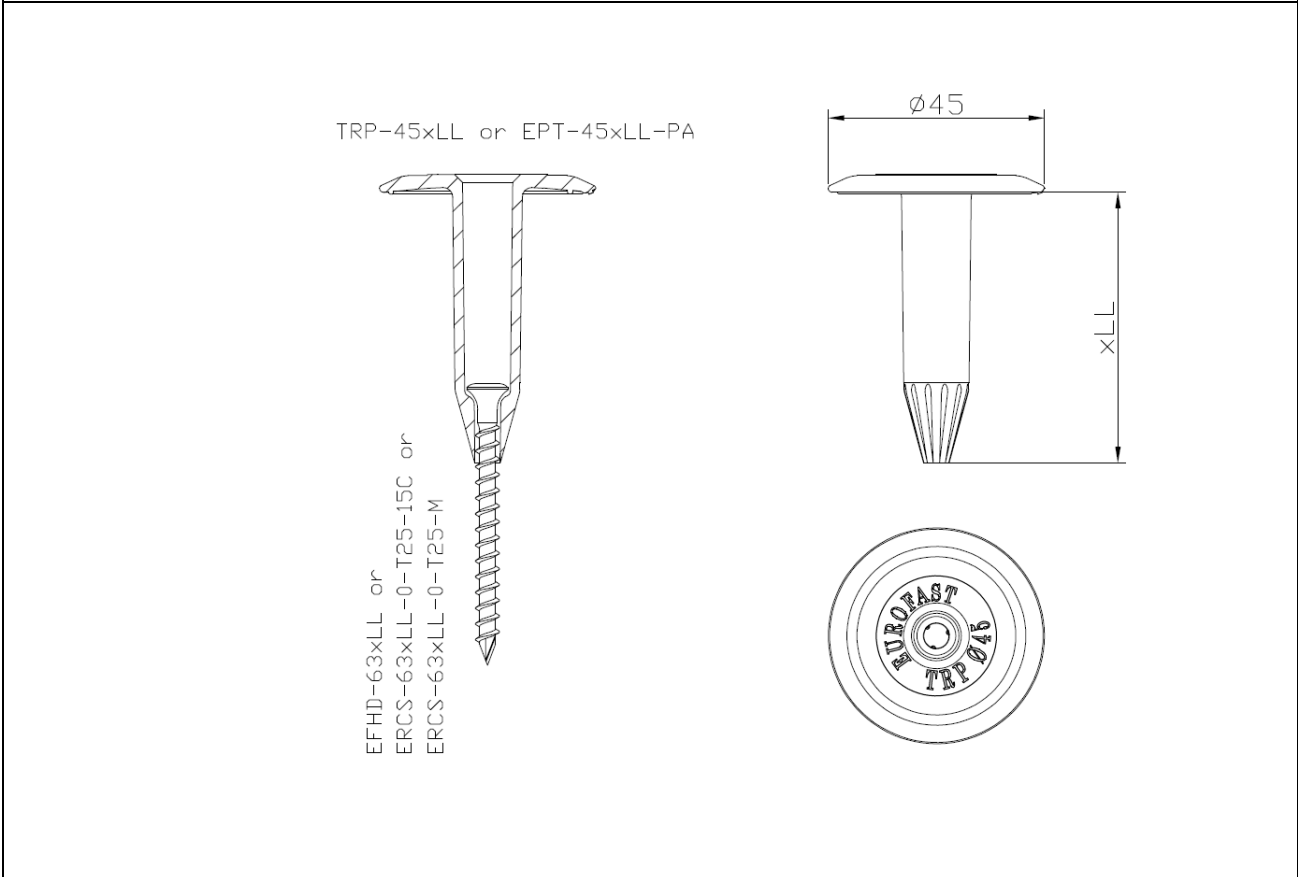
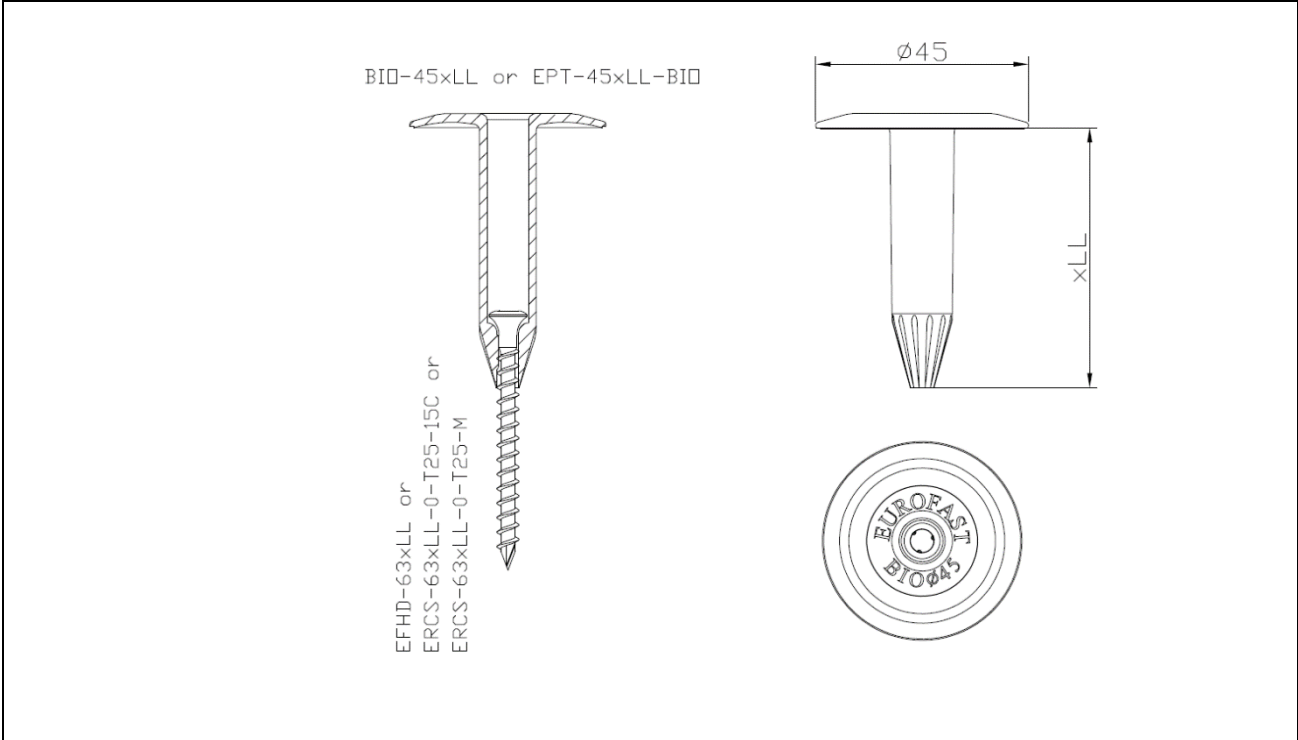
**Technical data**

HUKAD type:	Raised Bugle HUKAD
Recess:	TX25
Effective anchoring depth $h_{ef}$ :	$\geq 30$ 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**

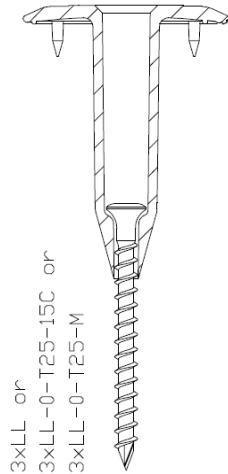
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.3**

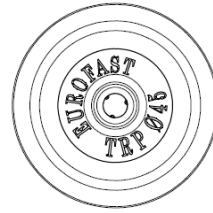
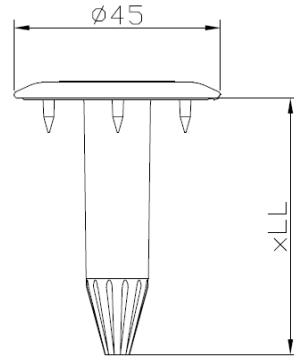


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex N.4</b>
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	

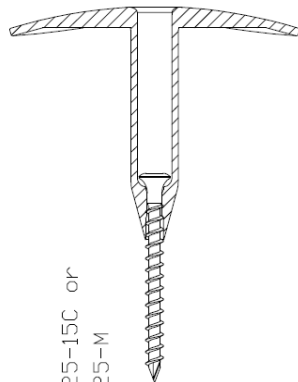
BTRP-45xLL or EPT-B-45xLL-PA



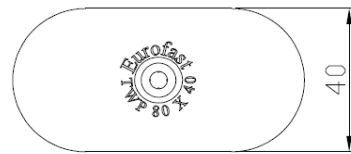
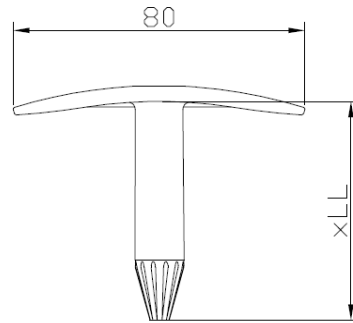
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



TWP-8040xLL or EPT-8040xLL-PA



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

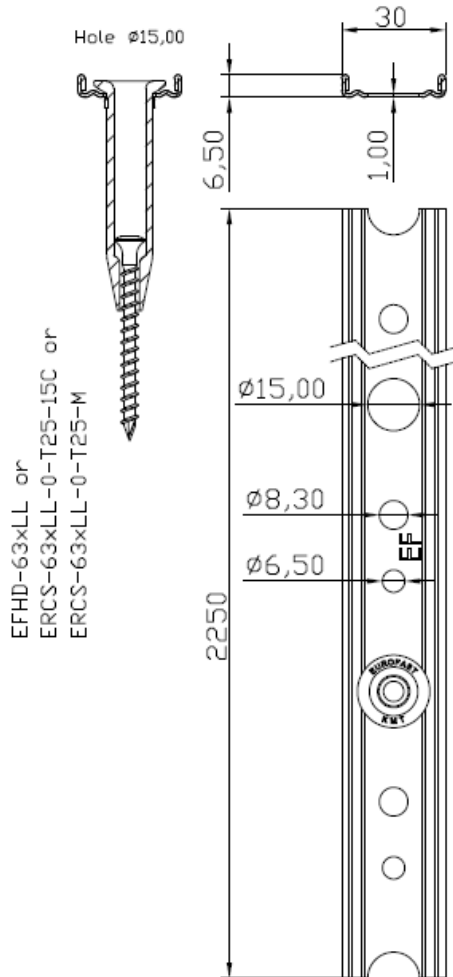


**Eurofast Flat Roof Fasteners**

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

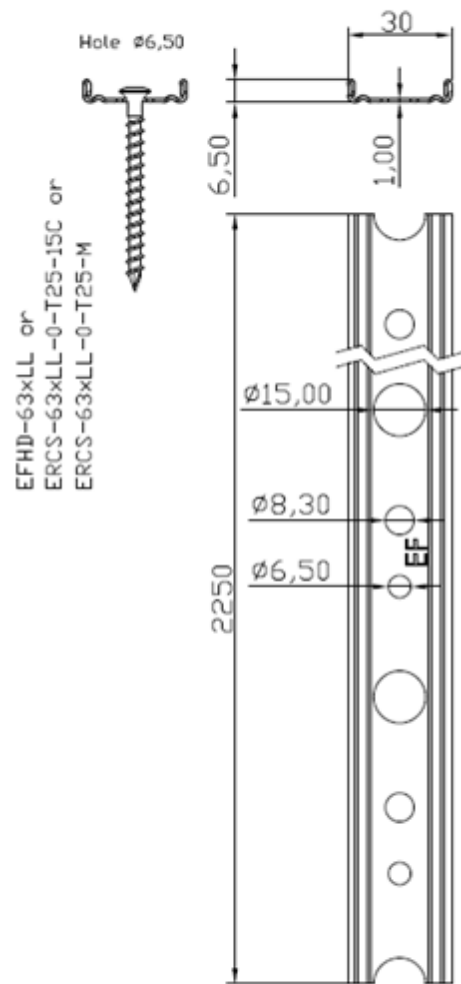
**Annex N.5**

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



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

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



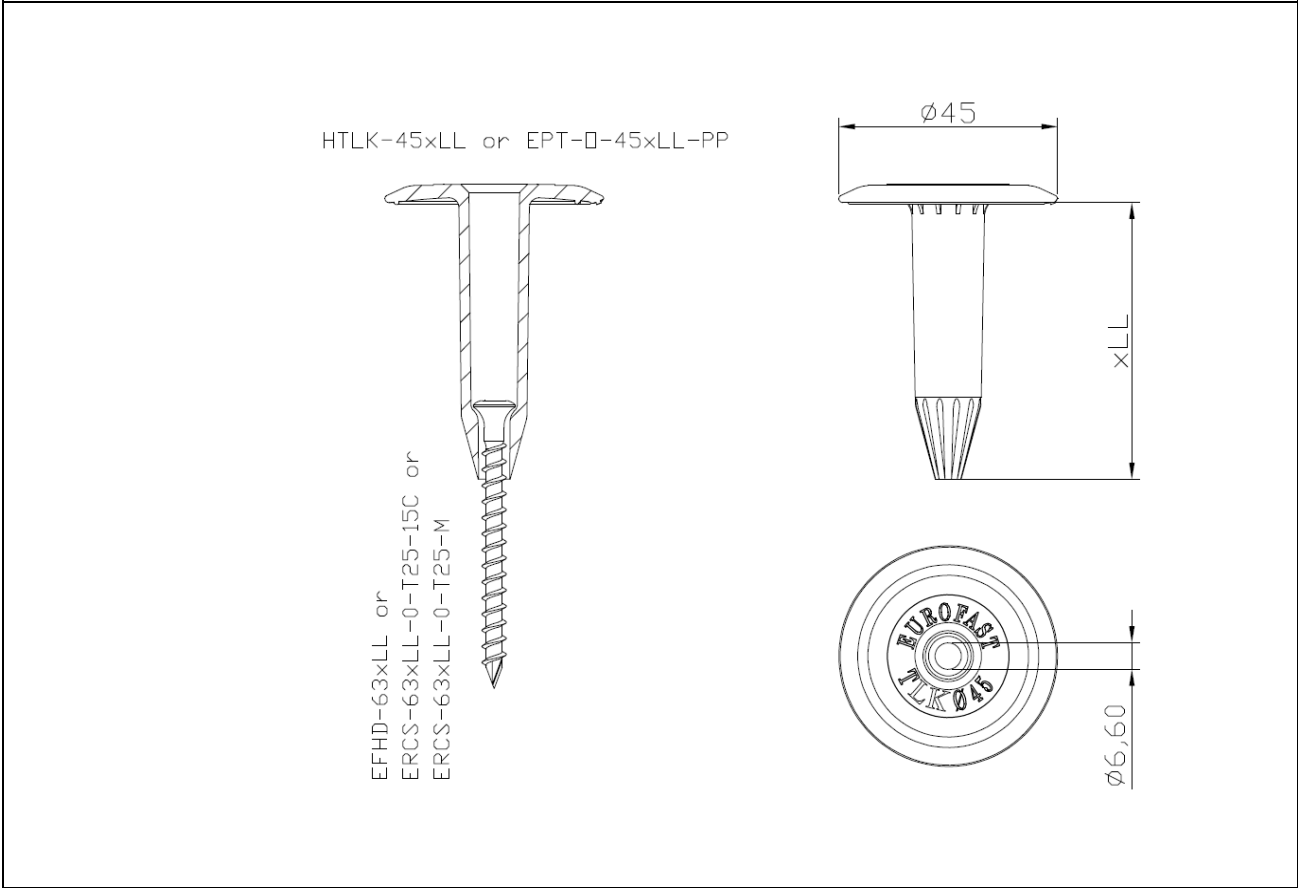
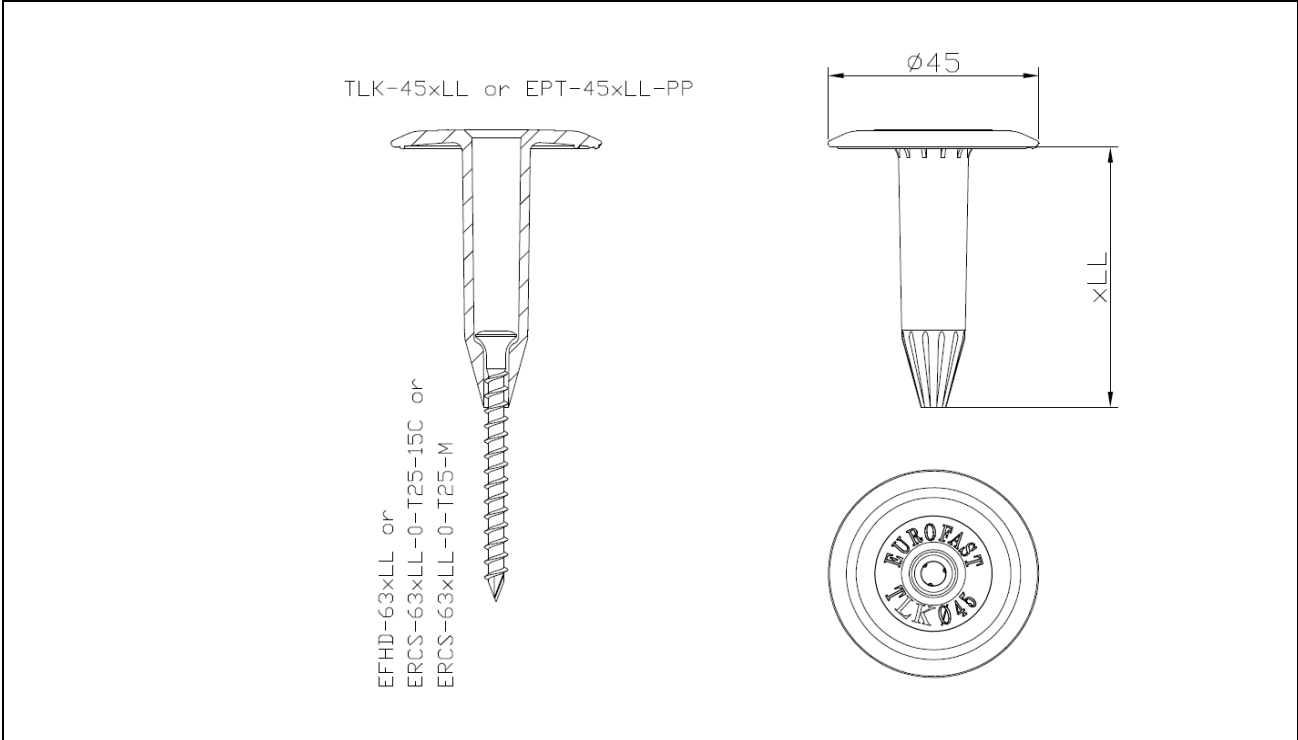
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M

**Eurofast Flat Roof Fasteners**

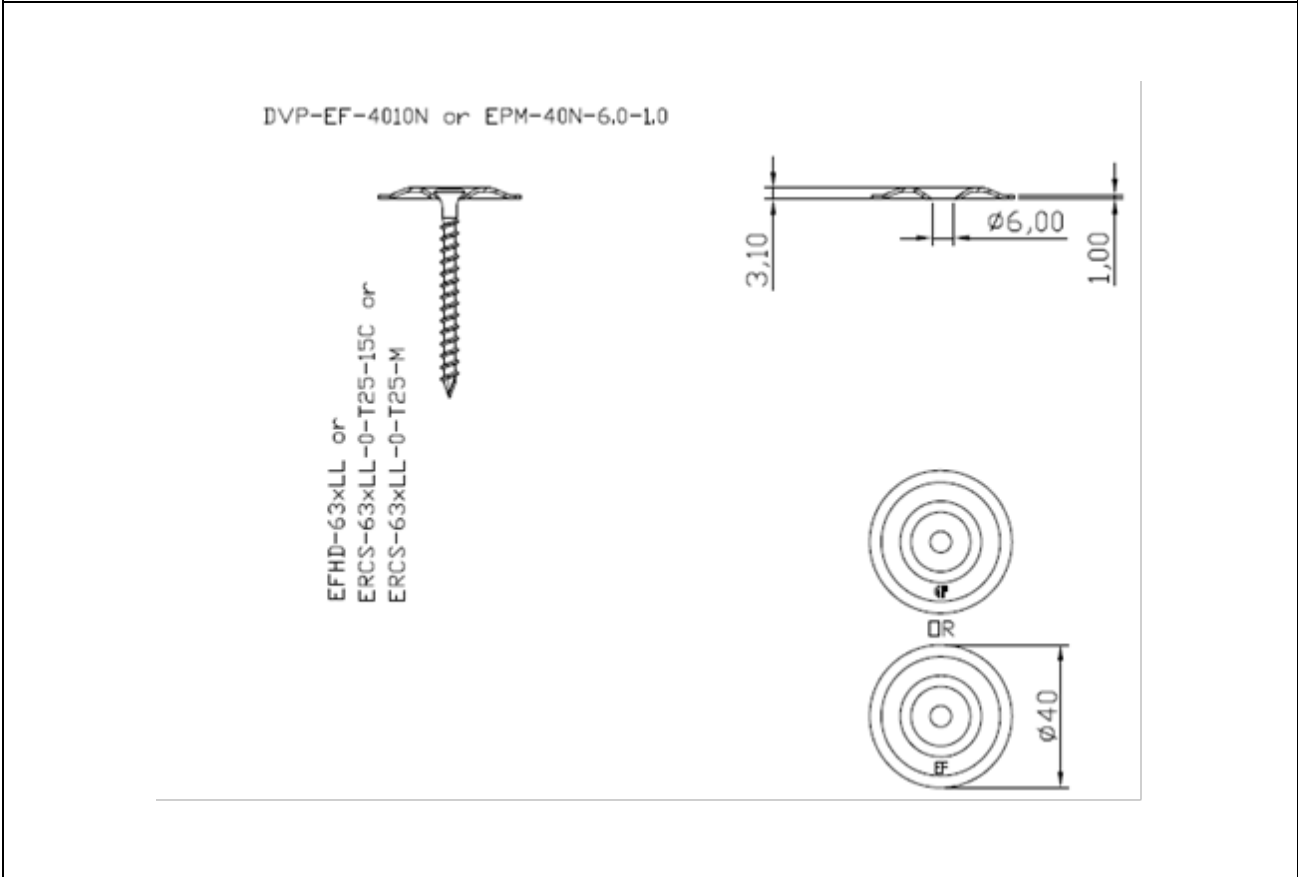
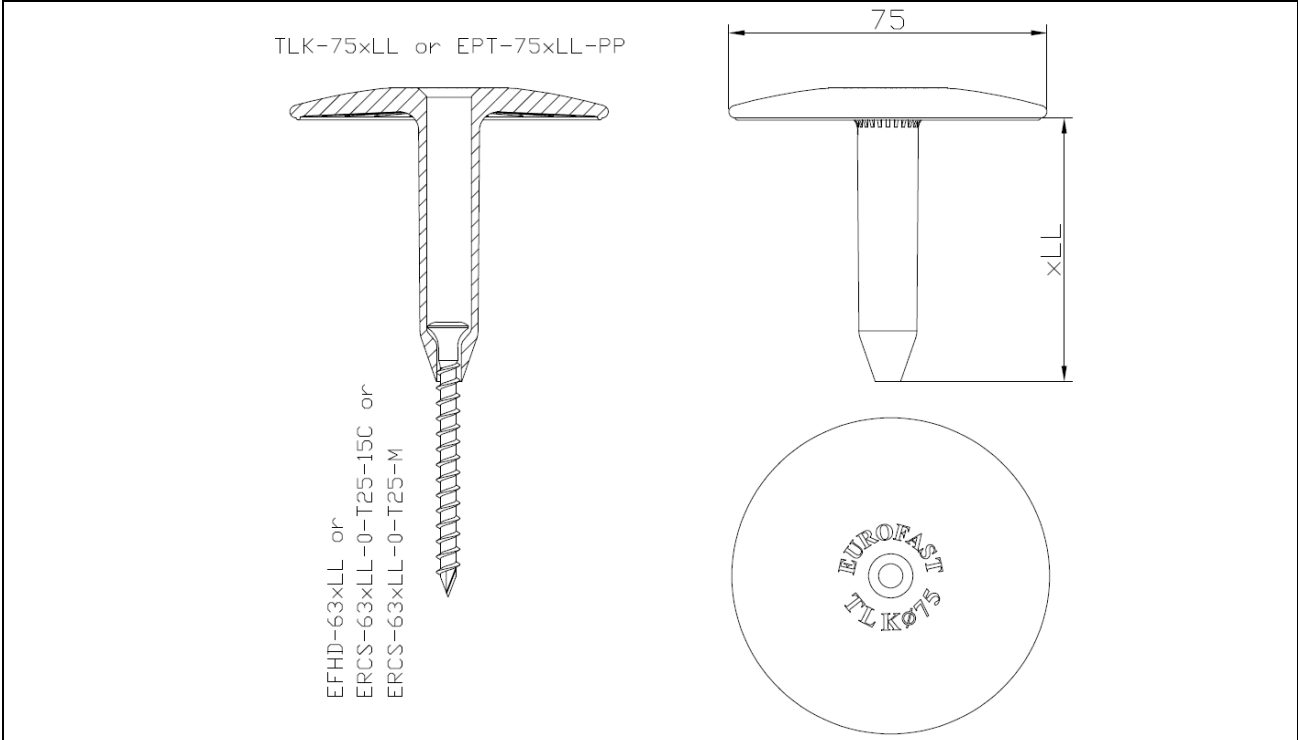
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.6**



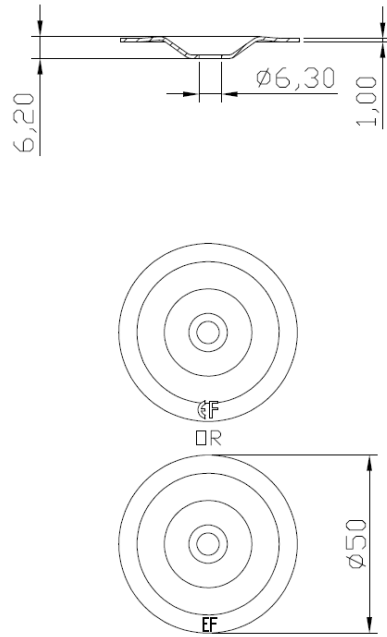
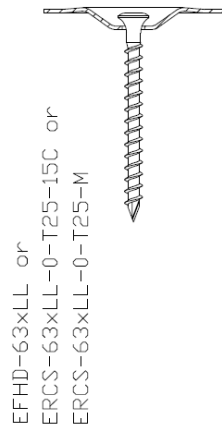


<b>Eurofast Flat Roof Fasteners</b>	
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	<b>Annex N.7</b>

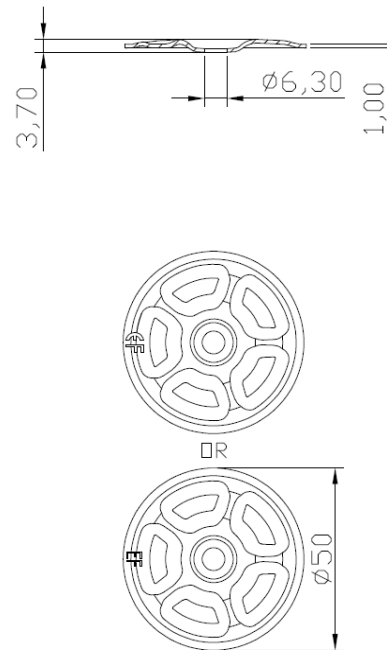
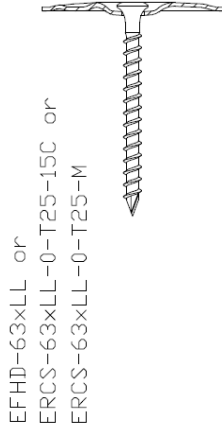


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex N.8</b>
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)	

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



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

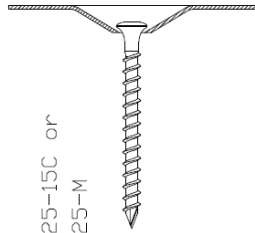


**Eurofast Flat Roof Fasteners**

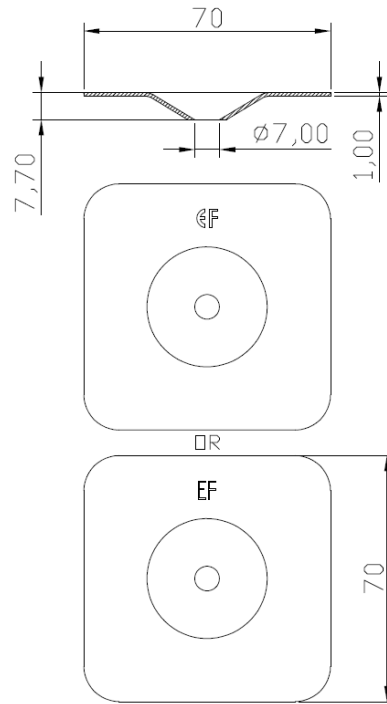
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.9**

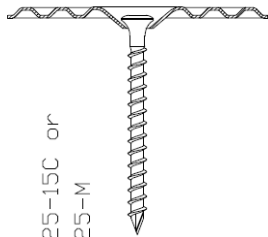
DVP-DF-7070D or EPM-7070D-7.0-1.0



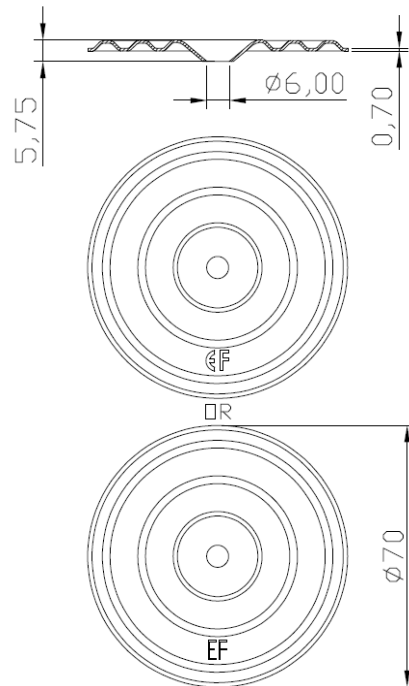
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



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



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

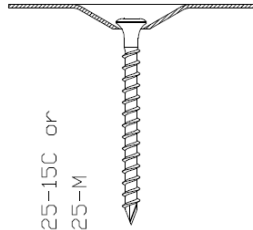


**Eurofast Flat Roof Fasteners**

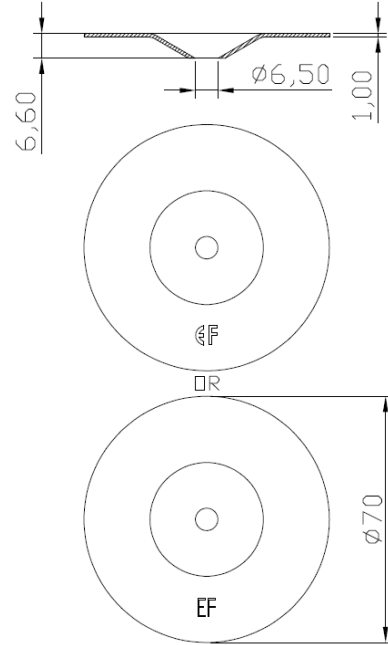
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.10**

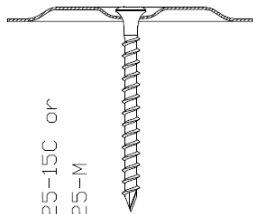
DVP-EF-7010D or EPM-70D-6.5-1.0



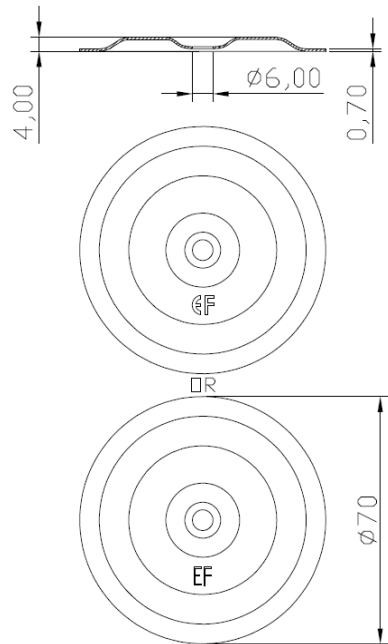
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



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



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

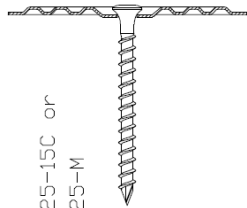


**Eurofast Flat Roof Fasteners**

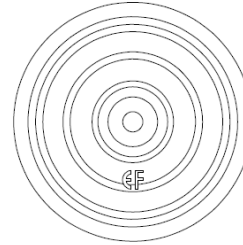
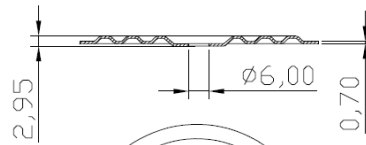
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.11**

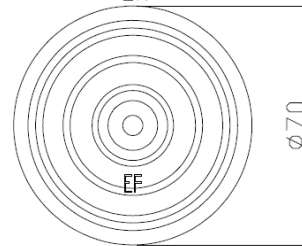
DVP-EF-7007N or EPM-70N-6.0-0.7



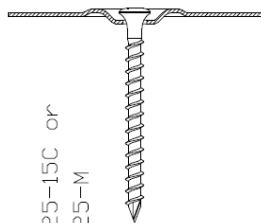
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



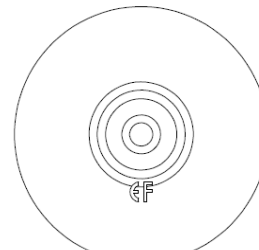
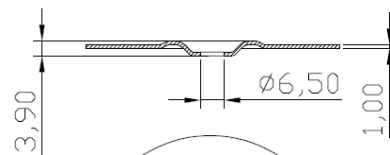
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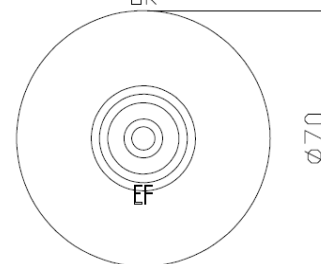
DVP-EF-7010N or EPM-70N-6.5-1.0



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



OR

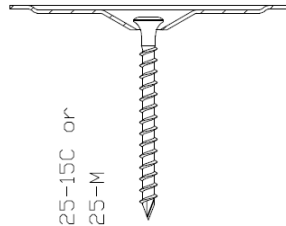


**Eurofast Flat Roof Fasteners**

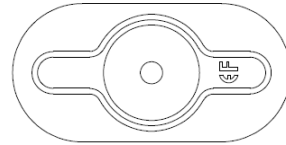
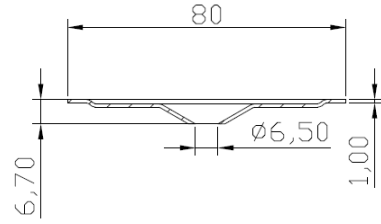
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.12**

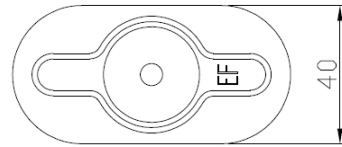
DVP-EF-8040D or EPM-8040D-6.5-1.0



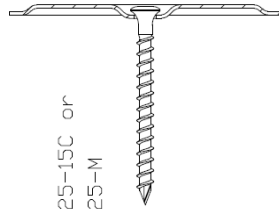
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



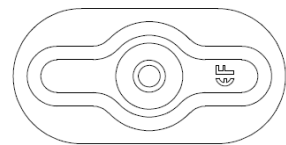
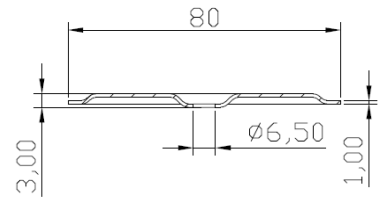
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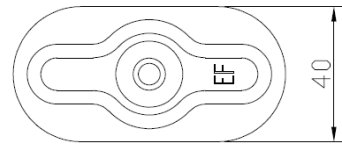
DVP-EF-8040N or EPM-8040N-6.5-1.0



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



OR

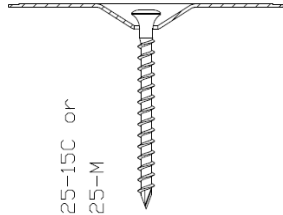


**Eurofast Flat Roof Fasteners**

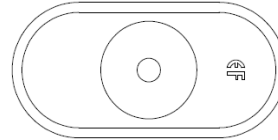
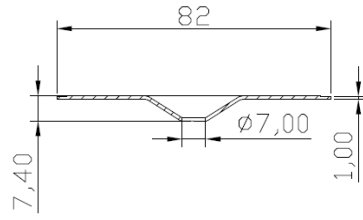
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.13**

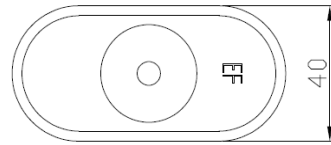
DVP-DF-8240D or EPM-8240D-7.00-1.0



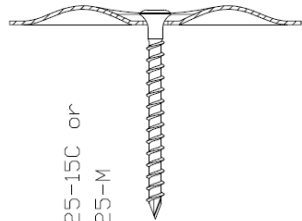
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



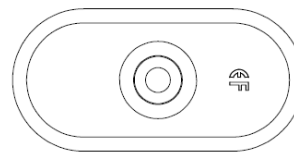
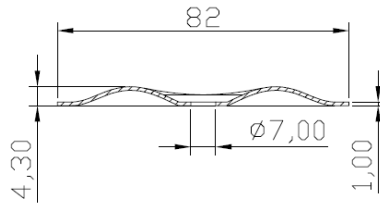
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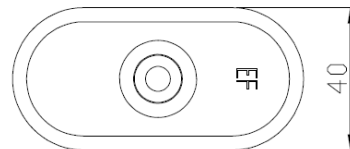
DVP-DF-8240H or EPM-8240H-7.0-1.0



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



OR



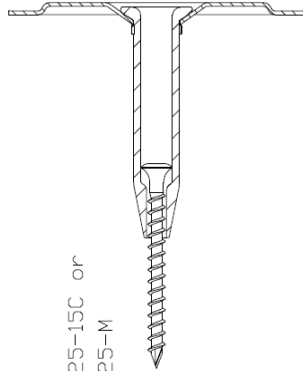
**Eurofast Flat Roof Fasteners**

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

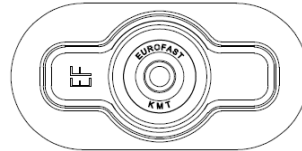
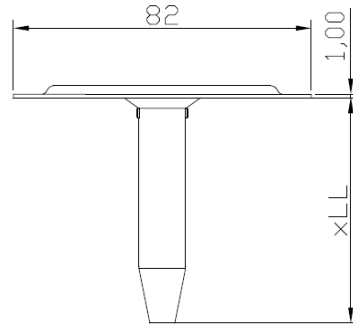
**Annex N.14**



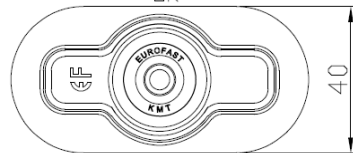
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13.6-1.0 + EPT-15xLL-PA



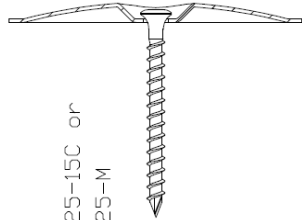
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



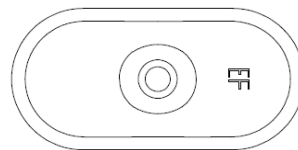
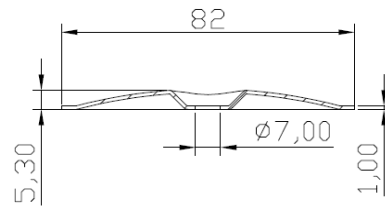
OR



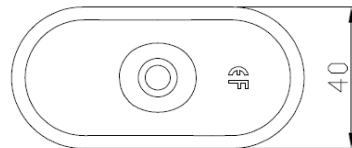
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



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



OR

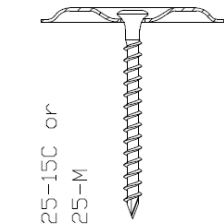


### Eurofast Flat Roof Fasteners

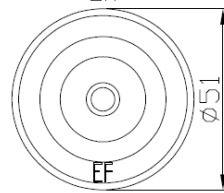
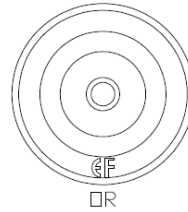
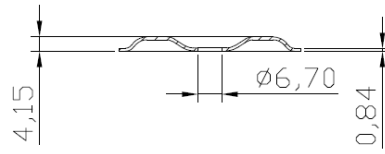
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

### Annex N.15

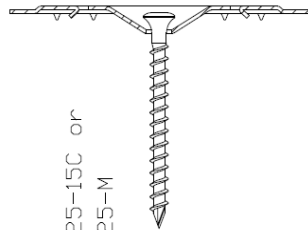
DVP-EF-51N or EPM-51N-6.7-0.84



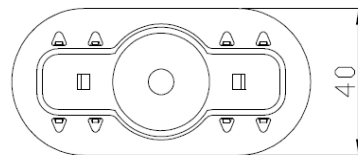
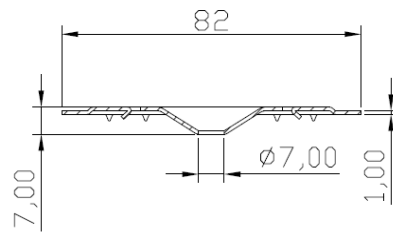
EFHD-63xLL or  
ERCS-63xLL-0-T25-15C or  
ERCS-63xLL-0-T25-M



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

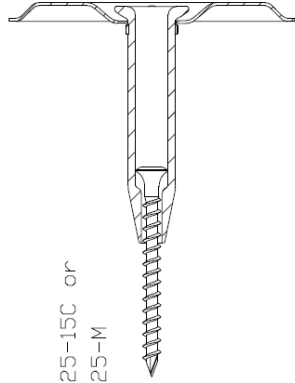


**Eurofast Flat Roof Fasteners**

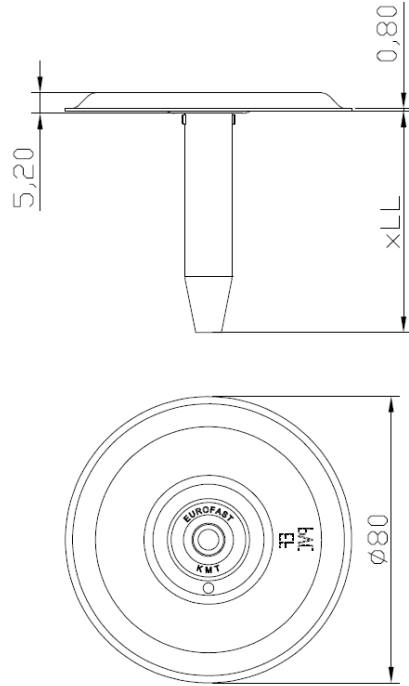
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.16**

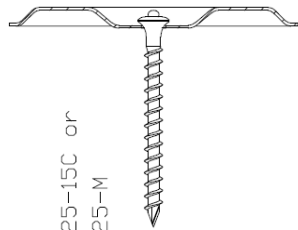
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



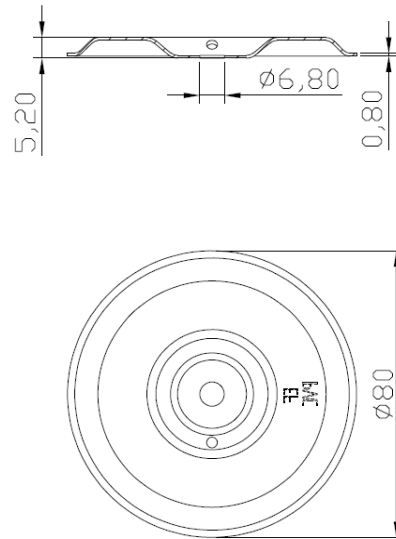
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M



EPM-IP-80-6.8-0.8



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

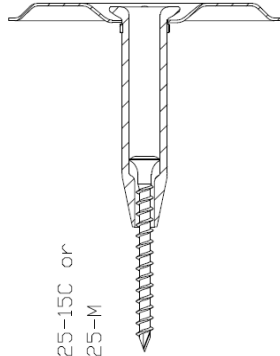


**Eurofast Flat Roof Fasteners**

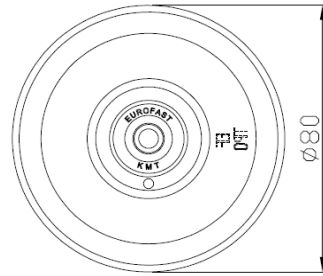
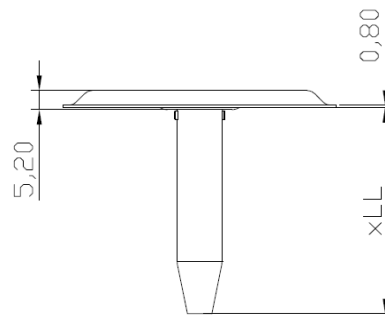
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.17**

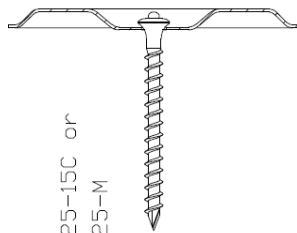
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



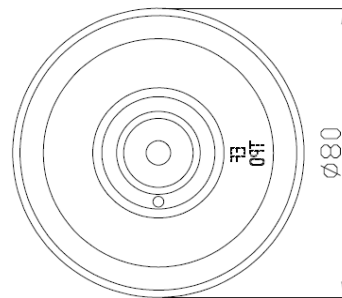
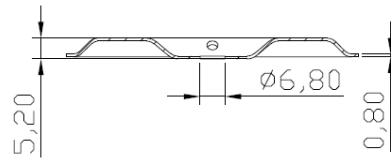
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M



EPM-IT-80-6.8-0.8



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

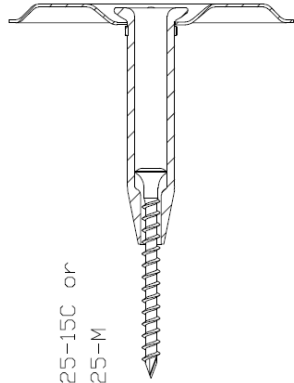


**Eurofast Flat Roof Fasteners**

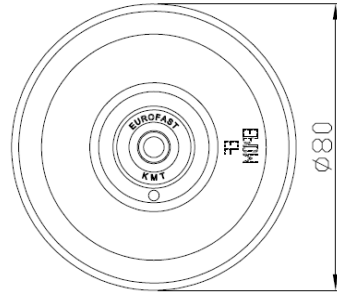
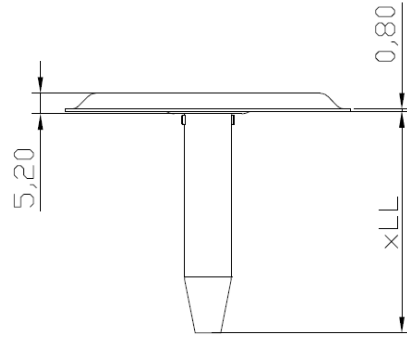
**Annex N.18**

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

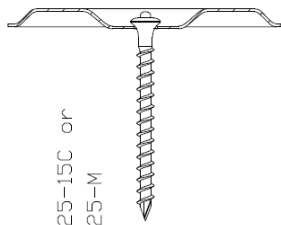
EPM-T-IE-80-13,6-0.8 + KMT-15xLL or  
 EPM-T-IE-80-13,6-0.8 + EPT-15xLL-PA



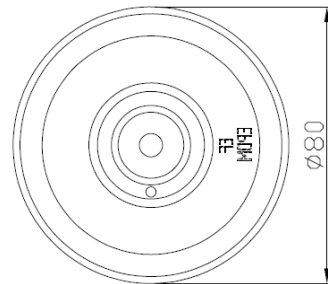
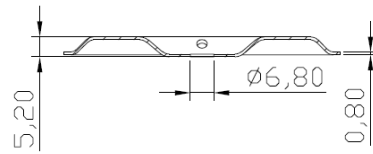
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M



EPM-IE-80-6,8-0.8



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

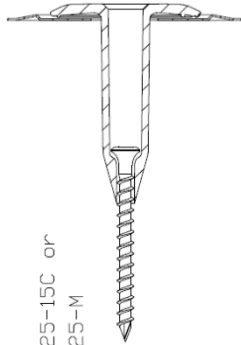


**Eurofast Flat Roof Fasteners**

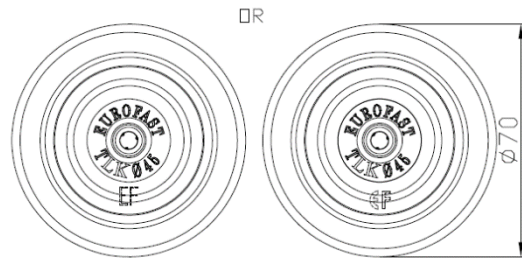
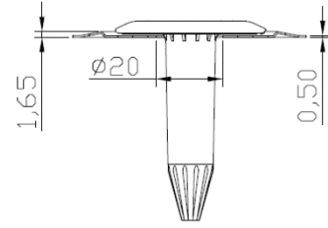
EFHD-63xLL (ERCS-63xLL-0-T25-15C or ERCS-63xLL-0-T25-M)

**Annex N.19**

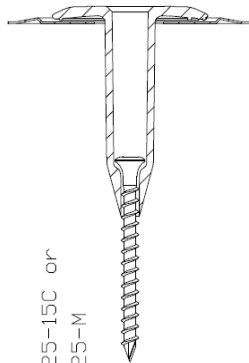
DVP-DL-70N + TLK-45xLL or  
 EPM-EDL-70N-20-0,5 + EPT-45xLL-PP



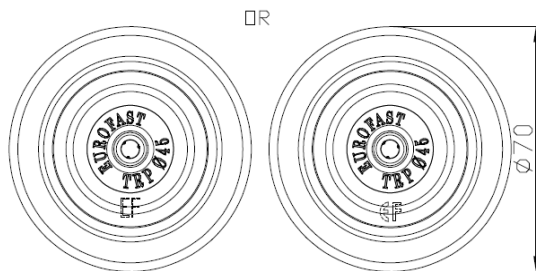
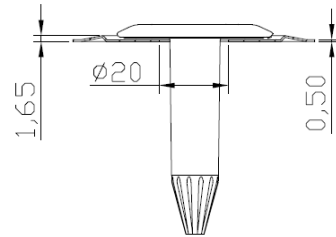
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M



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



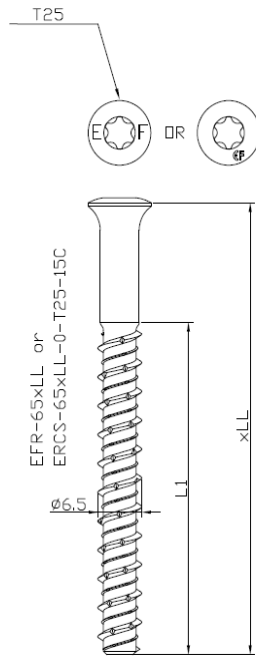
EFHD-63xLL or  
 ERCS-63xLL-0-T25-15C or  
 ERCS-63xLL-0-T25-M



**Eurofast Flat Roof Fasteners**

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

**Annex N.20**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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)

**Annex O.1**

Characteristic Values of Axial Pull-Through* Resistance [kN] (according to Figures 4 and 5 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex O.2</b>
EFR-65xLL (ERCS-65xLL-0-T25-15C)	



**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

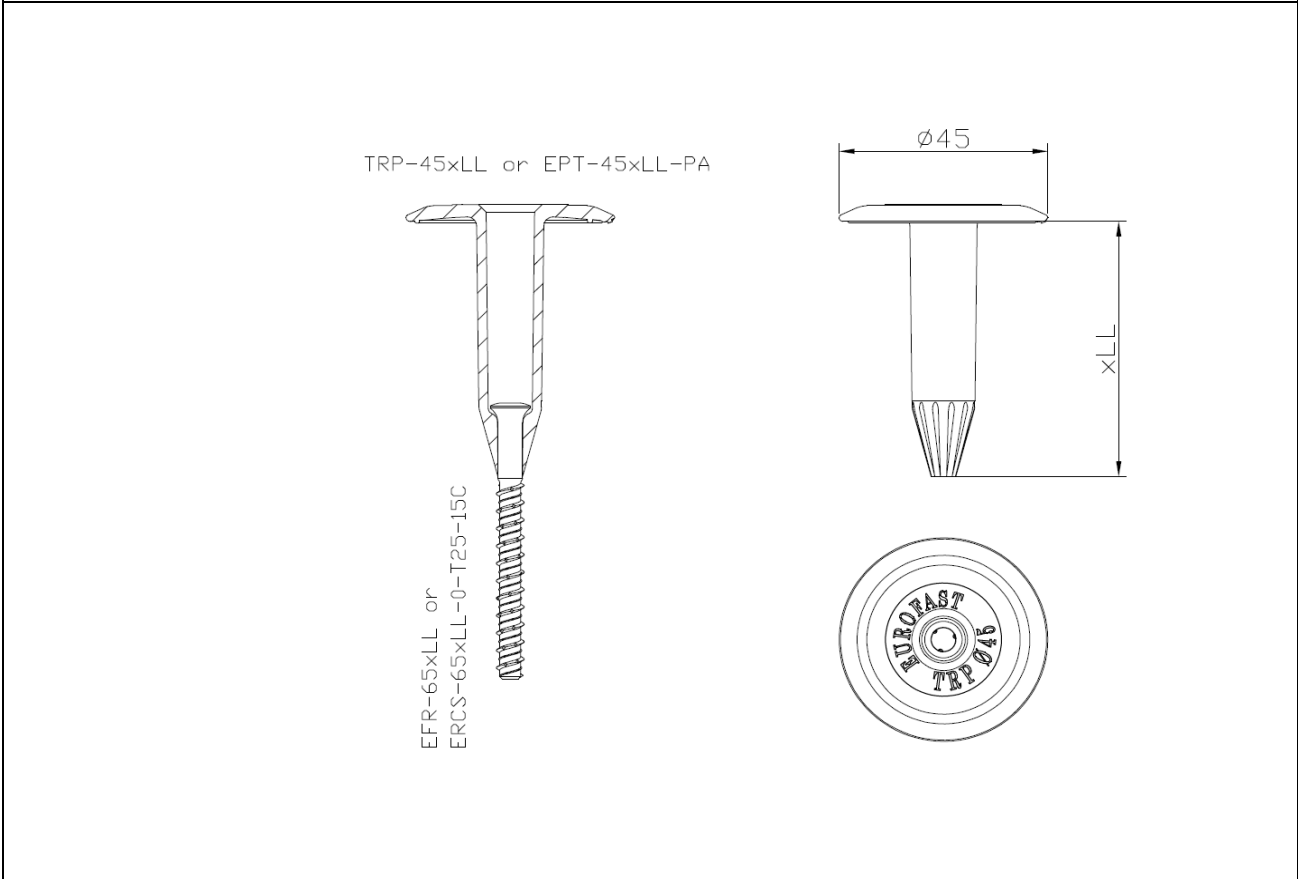
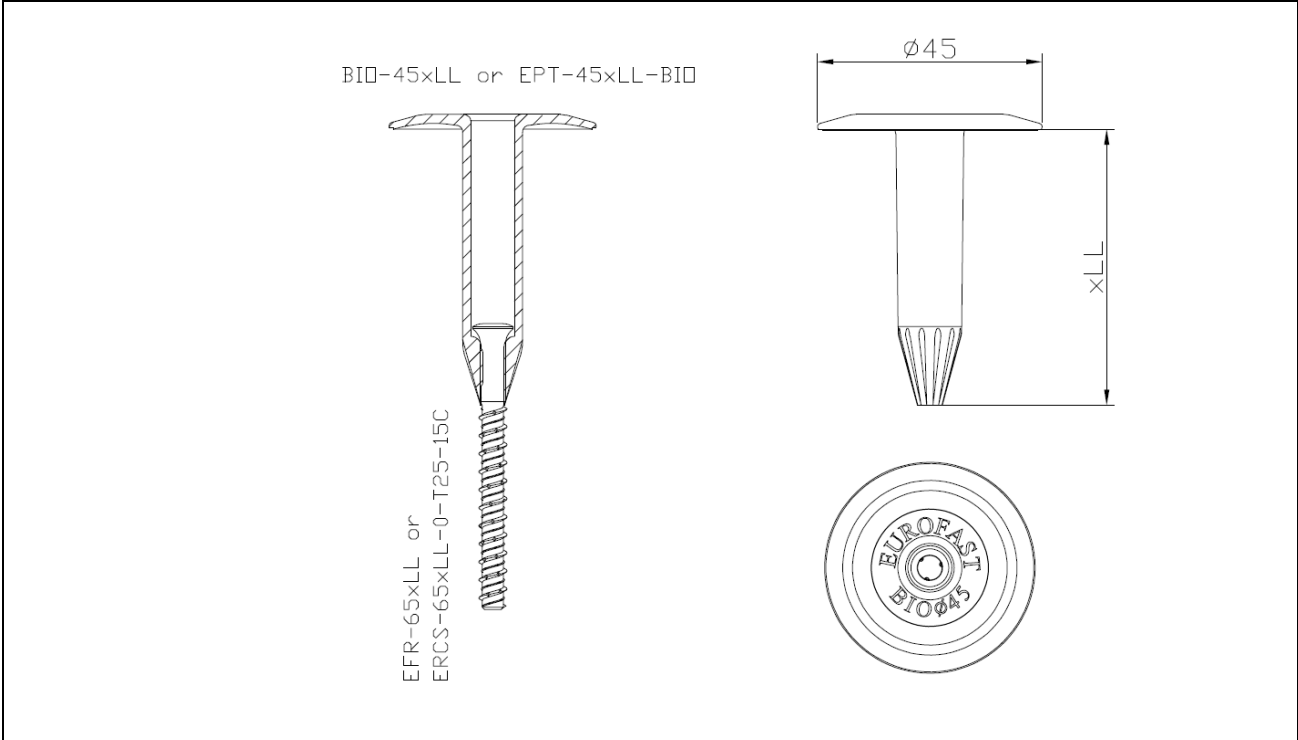
**Installation data:**

HUKAD type:	Raised Bugle HUKAD
Recess:	TX25
Effective anchoring depth $h_{ef}$ :	$\geq 25$ 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

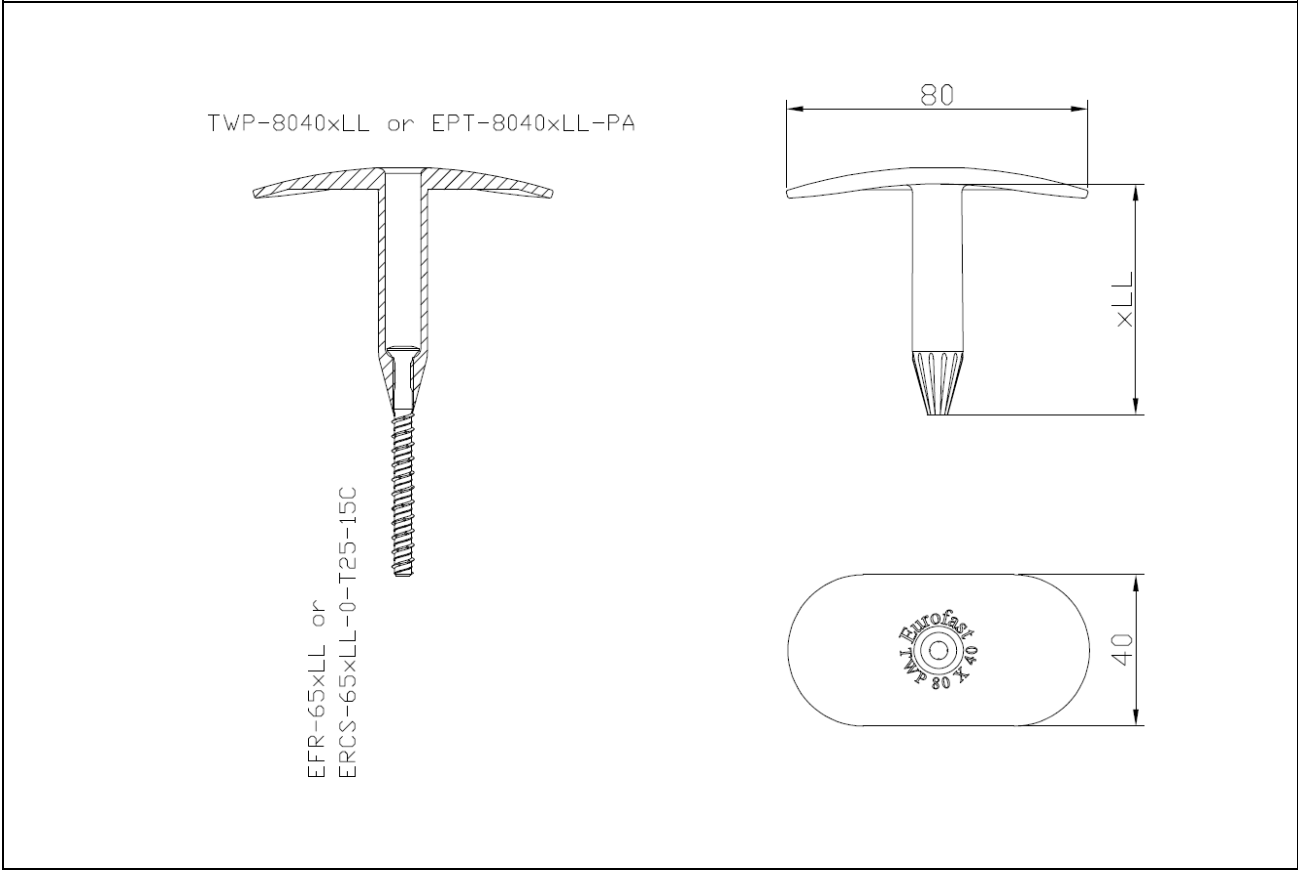
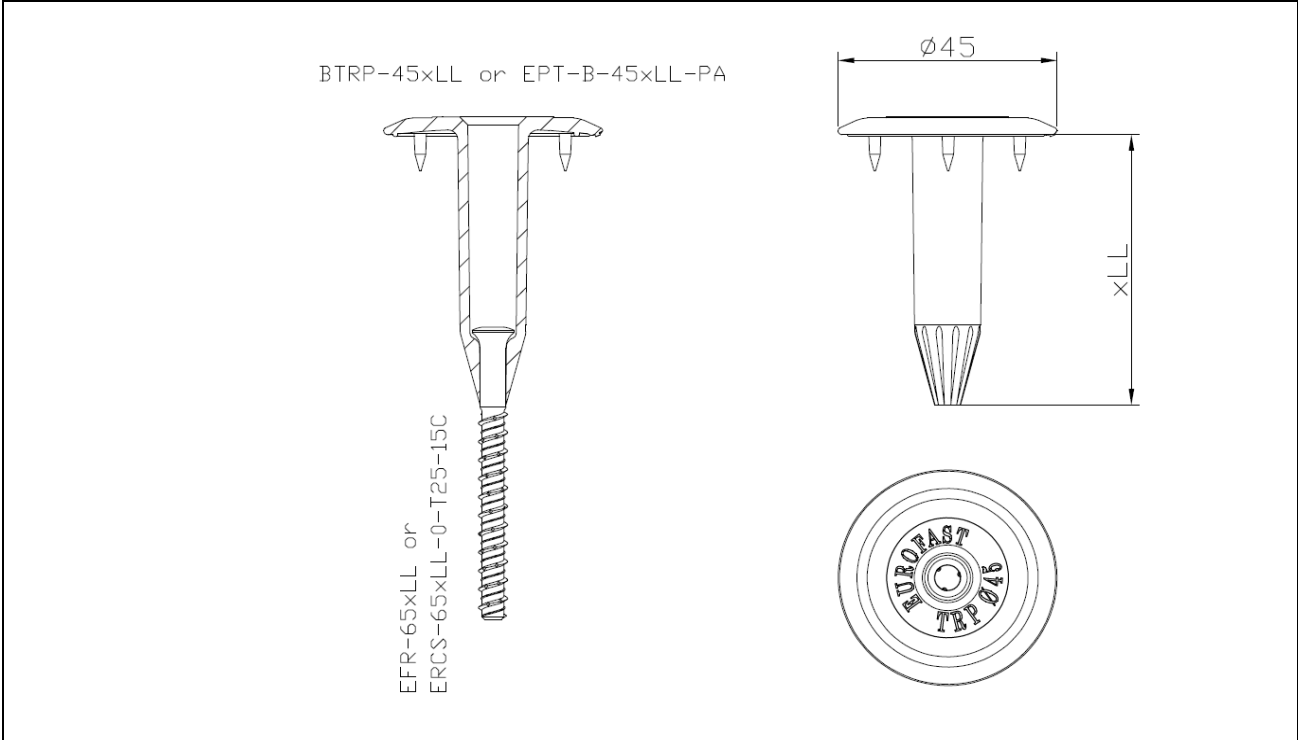
**Eurofast Flat Roof Fasteners**

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

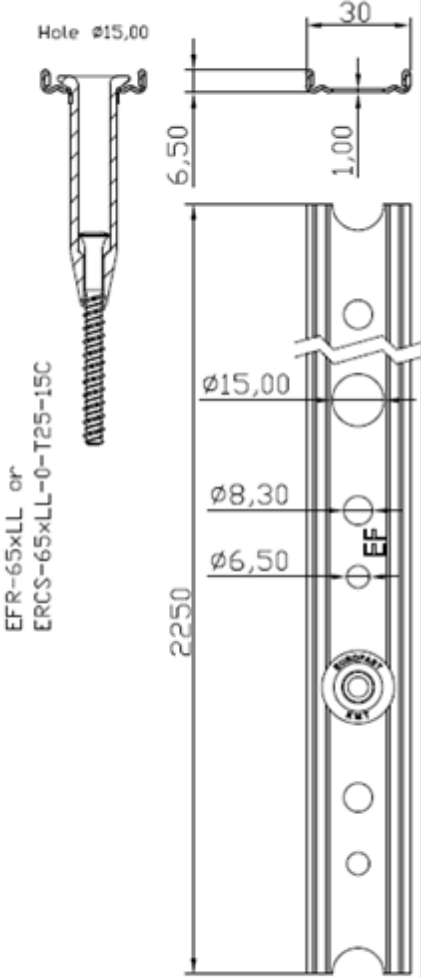
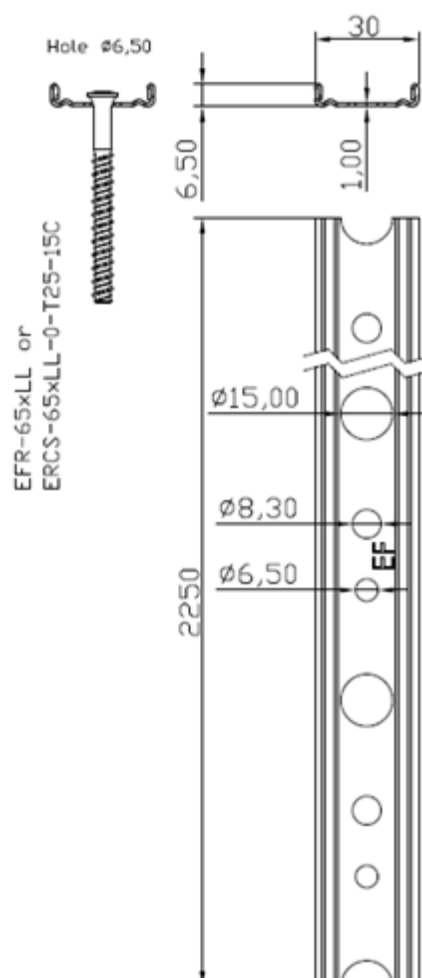
**Annex O.3**

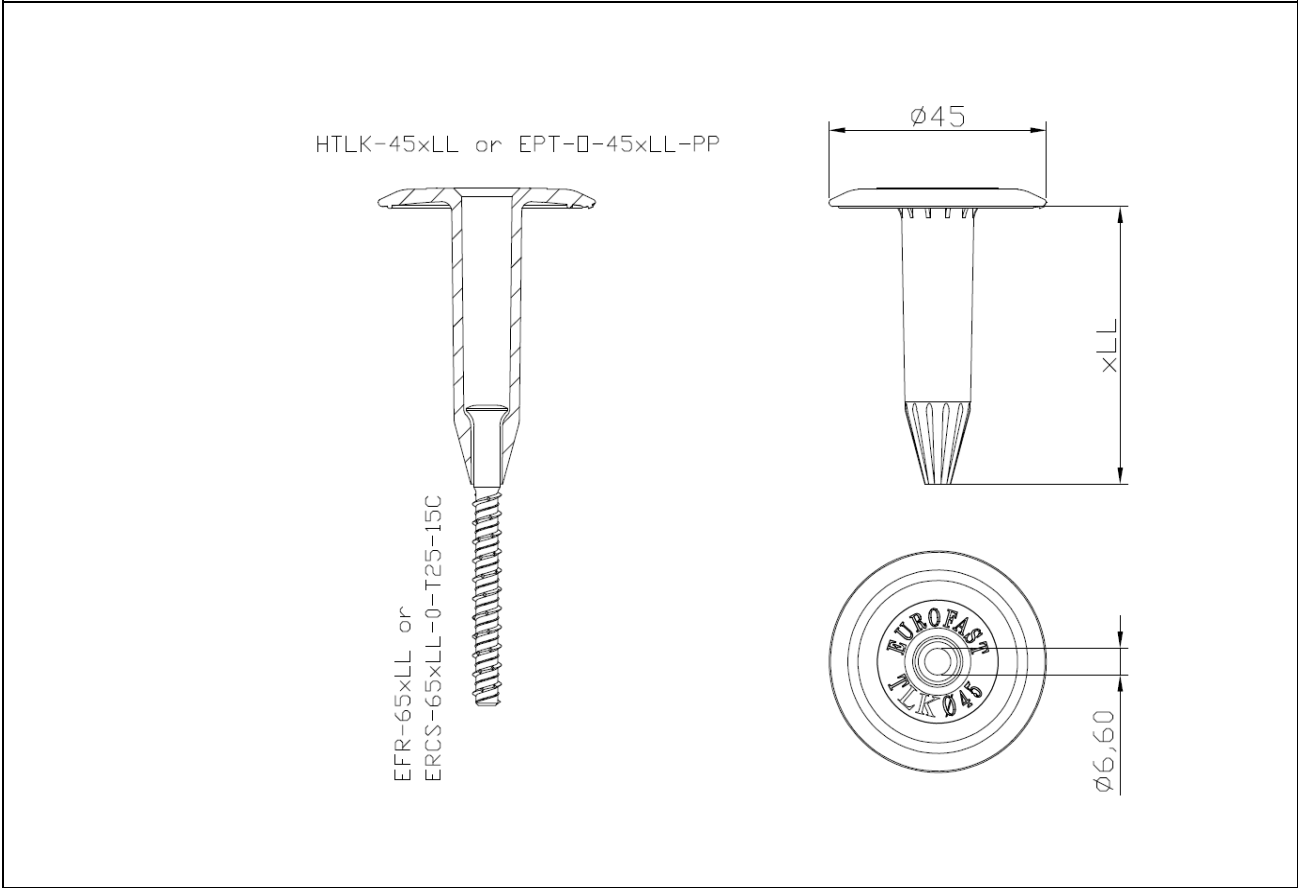
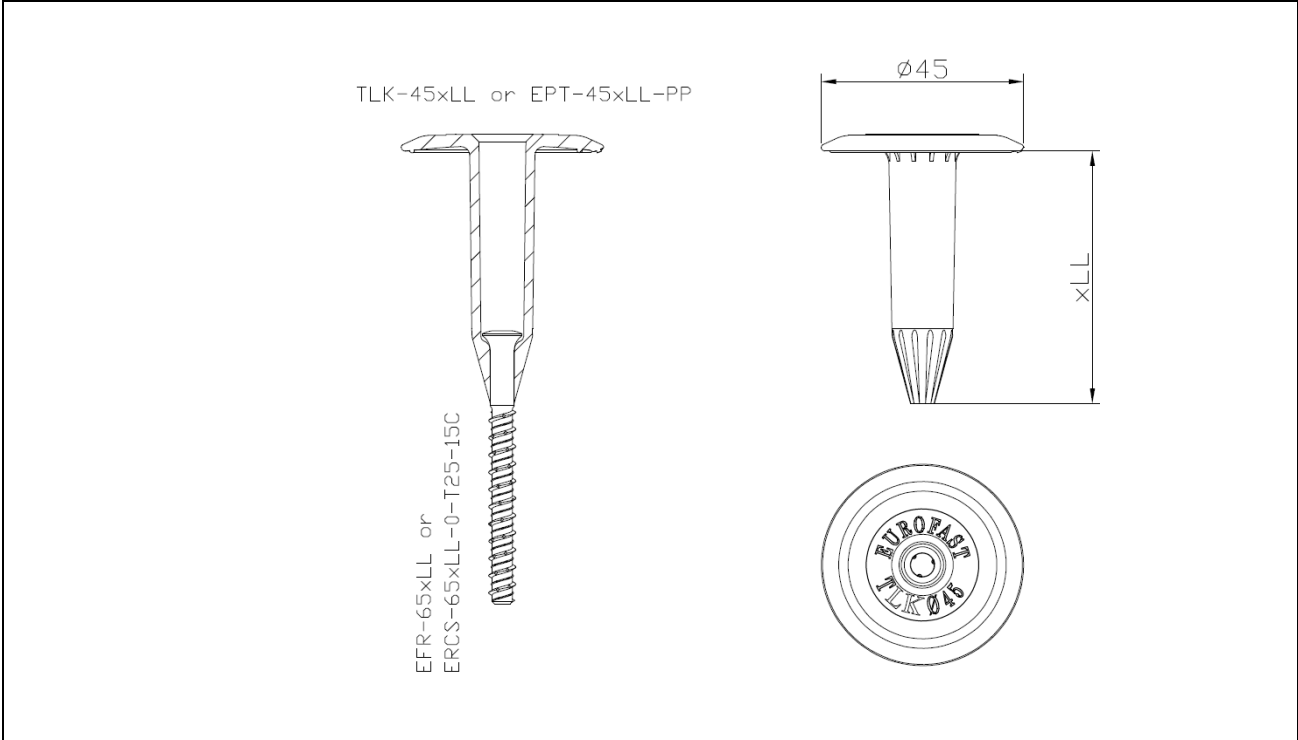


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex O.4</b>
EFR-65xLL (ERCS-65xLL-0-T25-15C)	

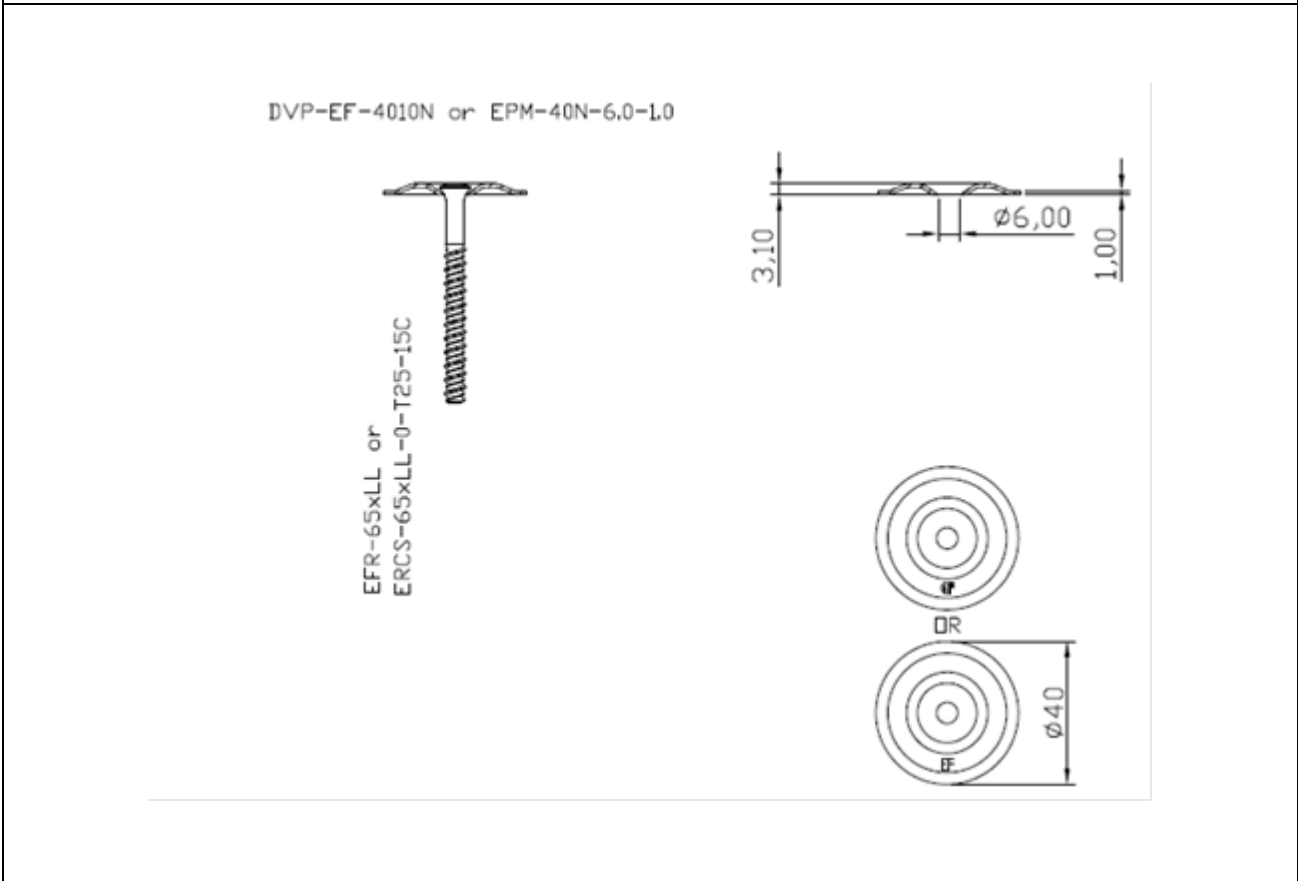
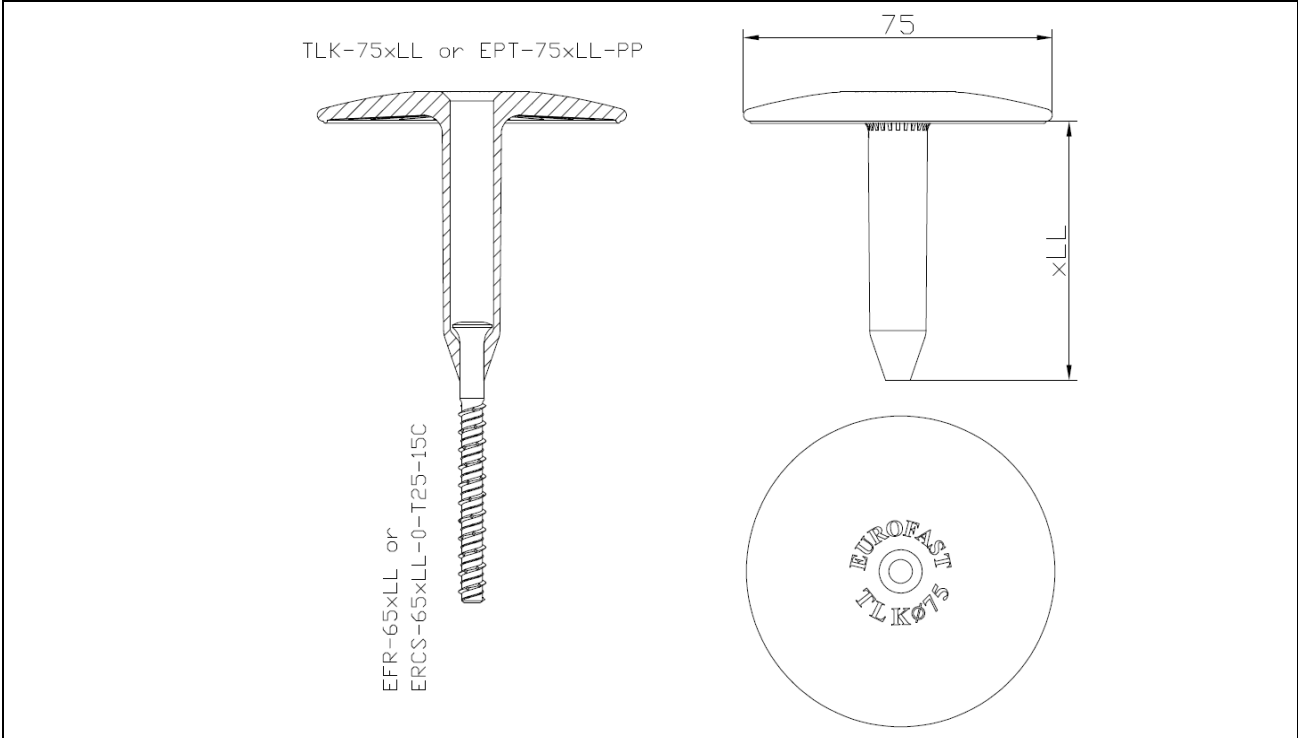


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex O.5</b>
EFR-65xLL (ERCS-65xLL-0-T25-15C)	

<p>EDF-BAR-F-TUBE + KMT-15xLL or ETM-T-2250-30-6.5-8.3-15.0-1.0 + EPT-15xLL-PA</p>  <p>EF-65xLL or ERCS-65xLL-0-T25-15C</p>	<p>EDF-BAR-F-TUBE or ETM-T-2250-30-6.5-8.3-15.0-1.0</p>  <p>EF-65xLL or ERCS-65xLL-0-T25-15C</p>
<b>Eurofast Flat Roof Fasteners</b>	
EFR-65xLL (ERCS-65xLL-0-T25-15C)	<b>Annex O.6</b>

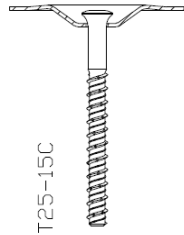


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex O.7</b>
EFR-65xLL (ERCS-65xLL-0-T25-15C)	

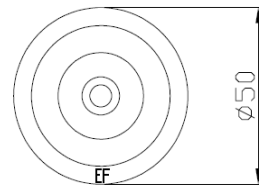
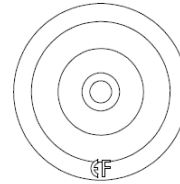
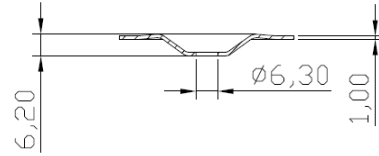


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex O.8</b>
EFR-65xLL (ERCS-65xLL-0-T25-15C)	

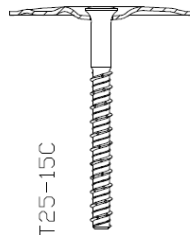
DVP-EF-5010D or EPM-50D-6.3-1.0



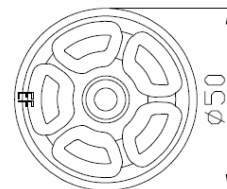
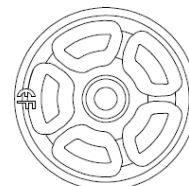
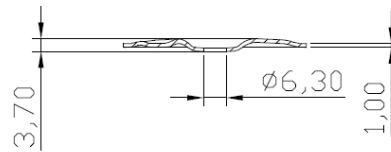
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



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



EFR-65xLL or  
ERCS-65xLL-0-T25-15C

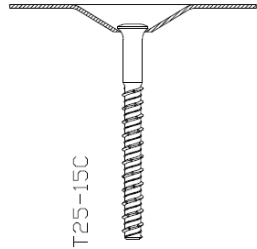


**Eurofast Flat Roof Fasteners**

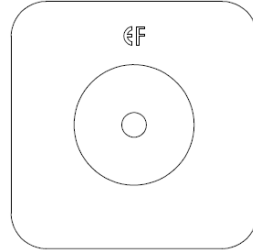
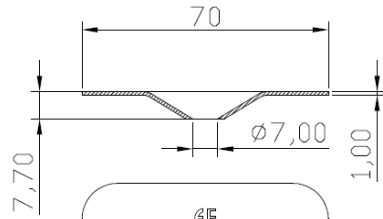
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.9**

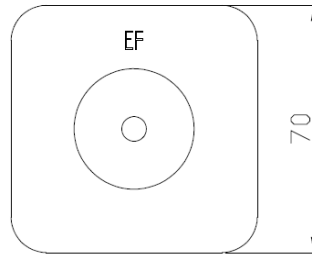
DVP-DF-7070D or EPM-7070D-7.0-1.0



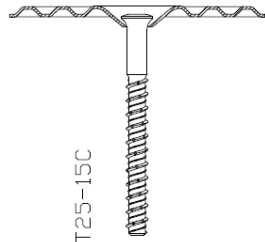
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



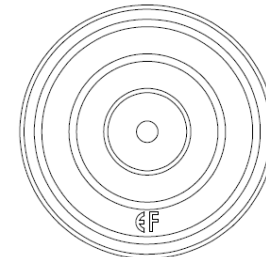
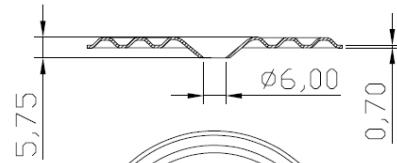
OR



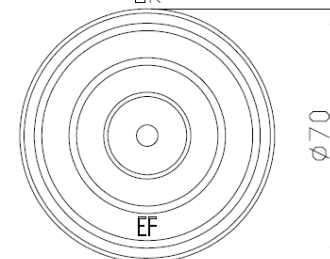
DVP-EF-7007D or EPM-70D-6.0-0.7



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



OR



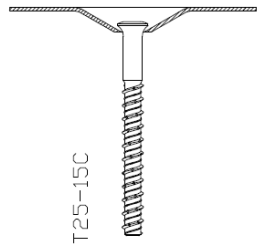
**Eurofast Flat Roof Fasteners**

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

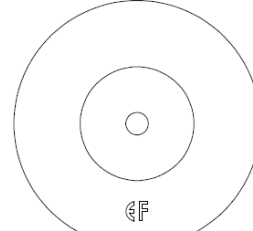
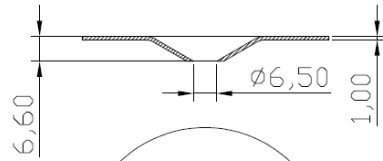
**Annex O.10**



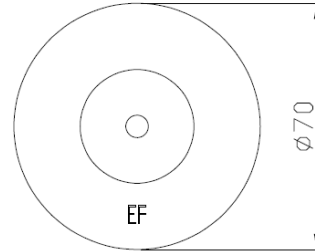
DVP-EF-7010D or EPM-70D-6,5-1.0



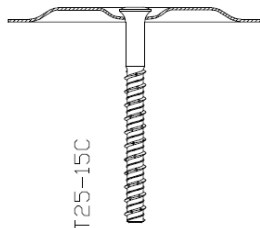
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



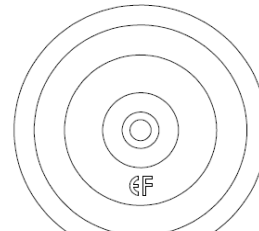
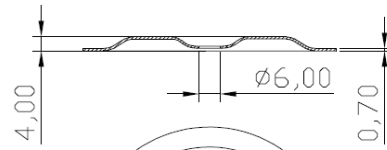
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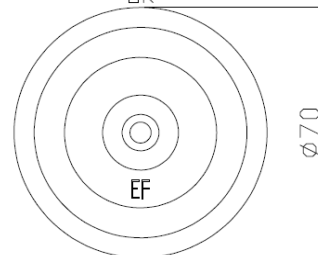
DVP-EF-7007H or EPM-70H-6.0-0.7



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



OR

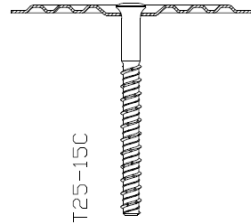


**Eurofast Flat Roof Fasteners**

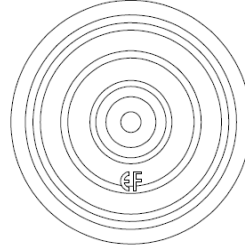
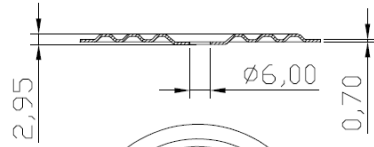
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.11**

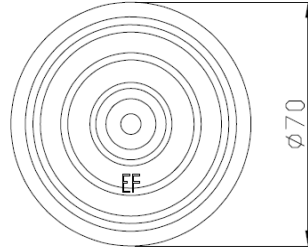
DVP-EF-7007N or EPM-70N-6.0-0.7



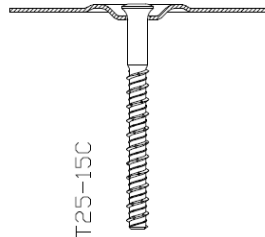
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



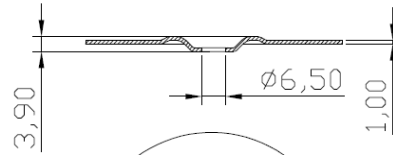
OR



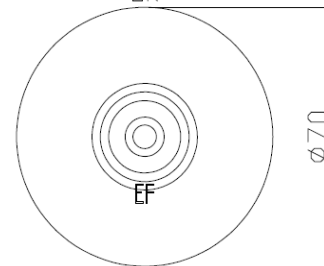
DVP-EF-7010N or EPM-70N-6.5-1.0



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



OR

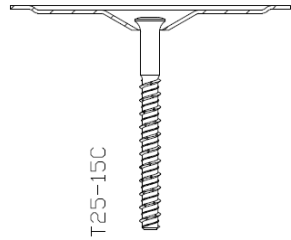


**Eurofast Flat Roof Fasteners**

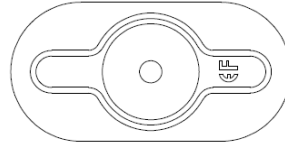
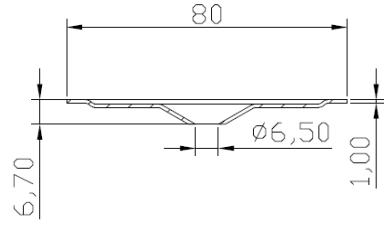
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.12**

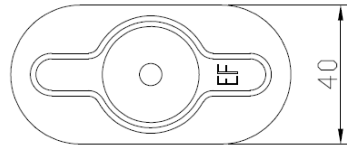
DVP-EF-8040D or EPM-8040D-6.5-1.0



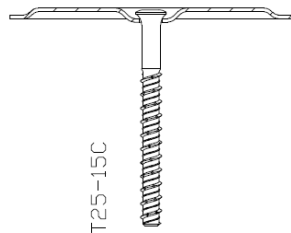
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



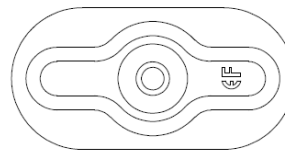
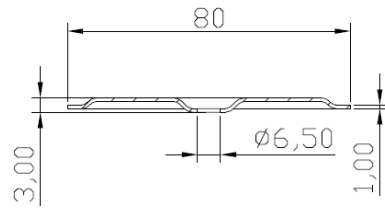
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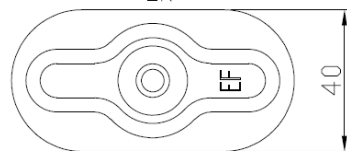
DVP-EF-8040N or EPM-8040N-6.5-1.0



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



OR

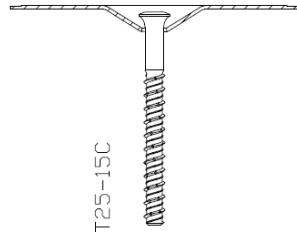


**Eurofast Flat Roof Fasteners**

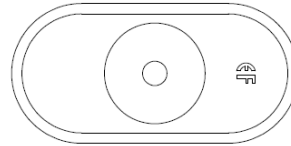
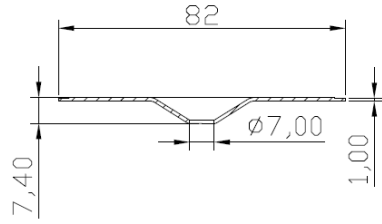
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.13**

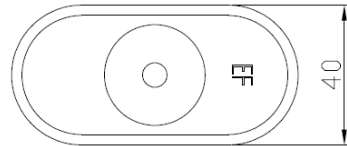
DVP-DF-8240D or EPM-8240D-7.00-1.0



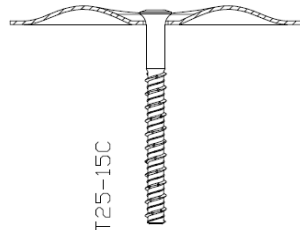
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



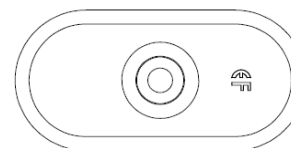
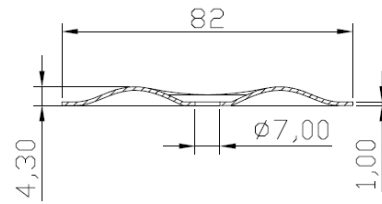
DF



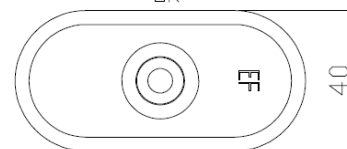
DVP-DF-8240H or EPM-8240H-7.00-1.0



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



DF

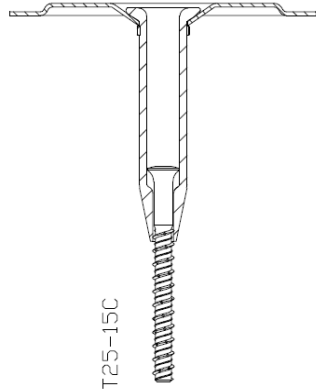


**Eurofast Flat Roof Fasteners**

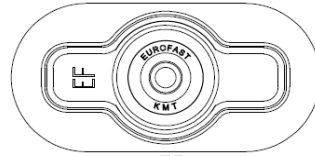
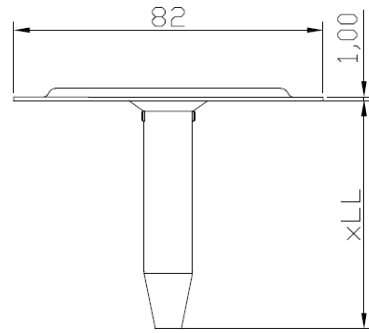
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.14**

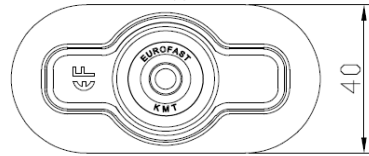
DVP-KMT-8240 + KMT-15xLL or  
EPM-T-8240N-13,6-1.0 + EPT-15xLL-PA



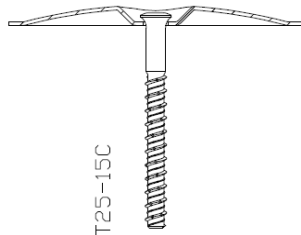
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



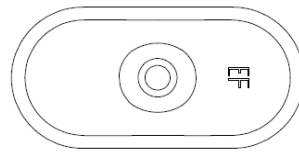
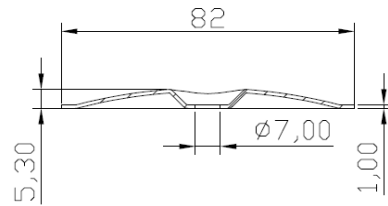
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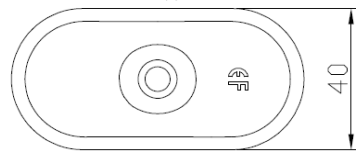
DVP-DF-8240XH or EPM-8240XH-7,0-1.0



EFR-65xLL or  
ERCS-65xLL-0-T25-15C



OR

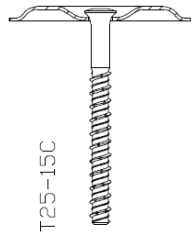


**Eurofast Flat Roof Fasteners**

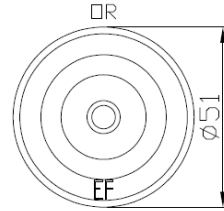
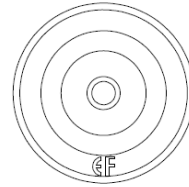
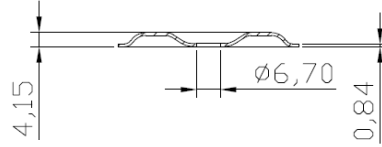
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.15**

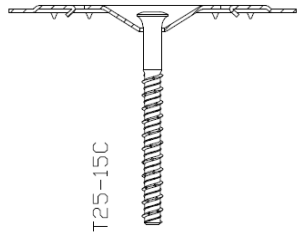
DVP-EF-51N or EPM-51N-6.7-0,84



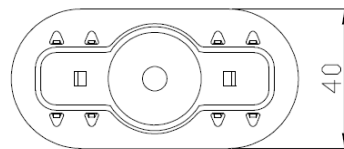
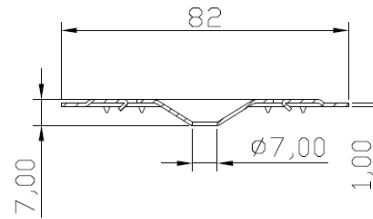
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



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



EFR-65xLL or  
ERCS-65xLL-0-T25-15C

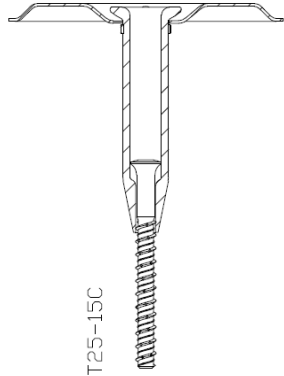


**Eurofast Flat Roof Fasteners**

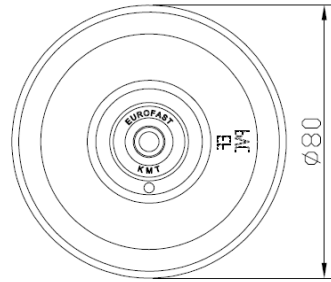
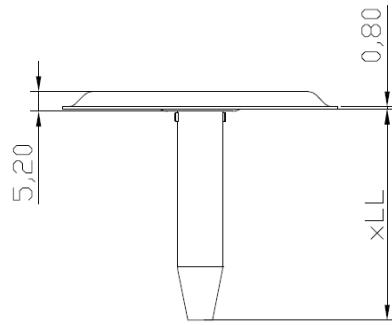
**Annex O.16**

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

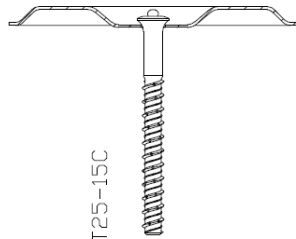
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



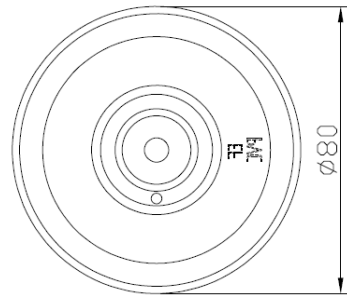
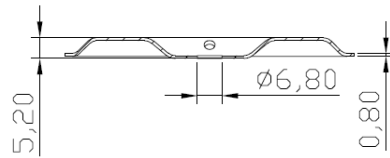
EFR-65xLL or  
 ERCS-65xLL-0-T25-15C



EPM-IP-80-6.8-0.8



EFR-65xLL or  
 ERCS-65xLL-0-T25-15C

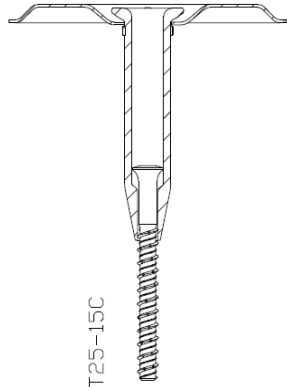


**Eurofast Flat Roof Fasteners**

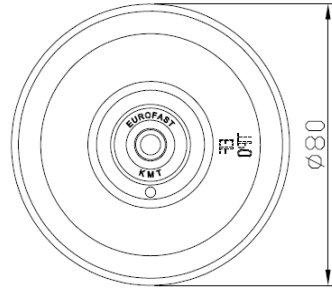
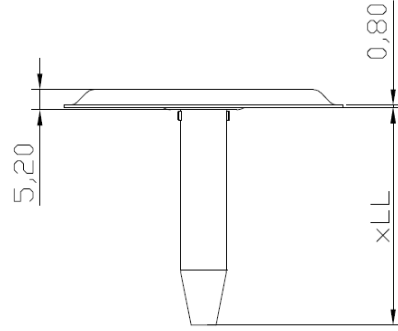
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.17**

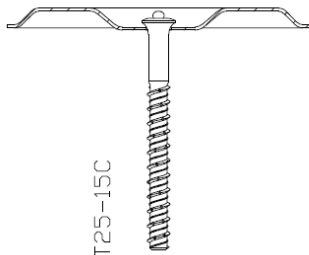
EPM-T-IT-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IT-80-13.6-0.8 + EPT-15xLL-PA



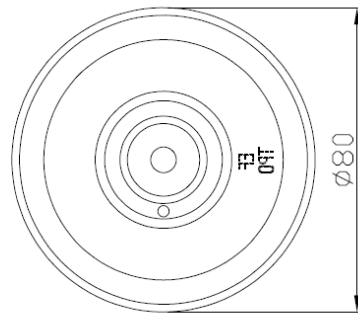
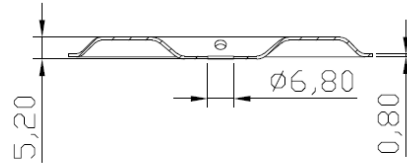
EFR-65xLL or  
 ERCS-65xLL-0-T25-15C



EPM-IT-80-6.8-0.8



EFR-65xLL or  
 ERCS-65xLL-0-T25-15C



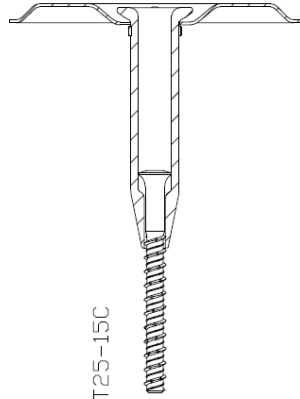
**Eurofast Flat Roof Fasteners**

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

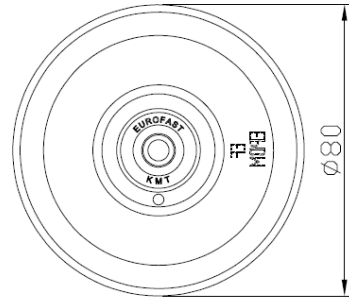
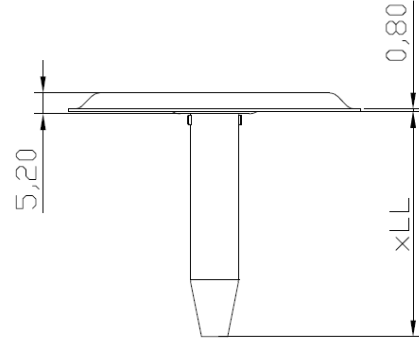
**Annex O.18**



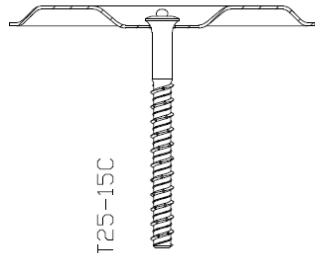
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



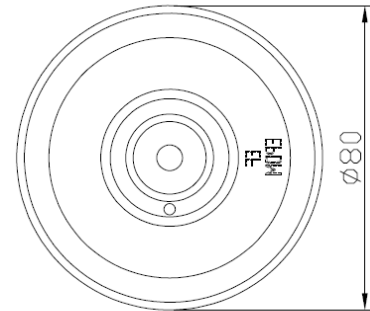
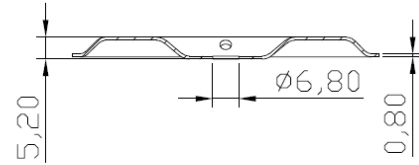
EFR-65xLL or  
 ERCS-65xLL-0-T25-15C



EPM-IE-80-6.8-0.8



EFR-65xLL or  
 ERCS-65xLL-0-T25-15C

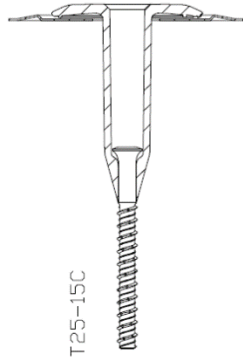


**Eurofast Flat Roof Fasteners**

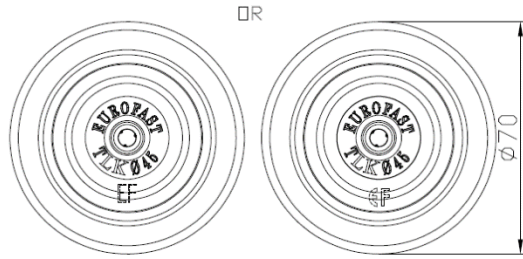
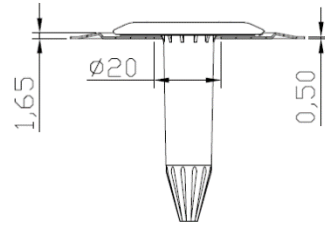
EFR-65xLL (ERCS-65xLL-0-T25-15C)

**Annex O.19**

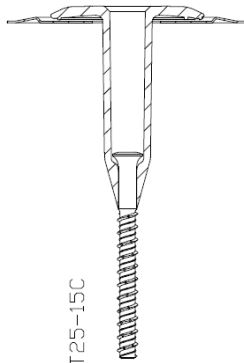
DVP-DL-70N + TLK-45xLL or  
EPM-EDL-70N-20-0.5 + EPT-45xLL-PP



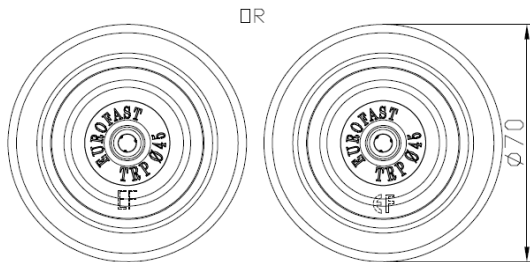
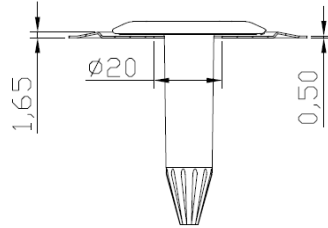
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



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



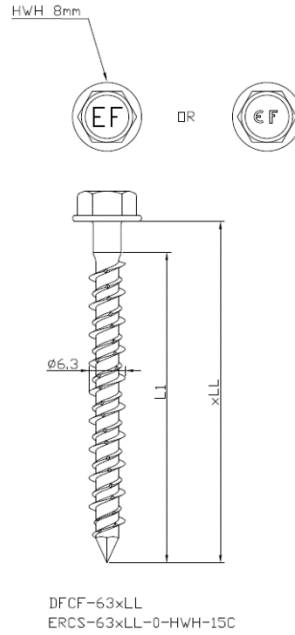
EFR-65xLL or  
ERCS-65xLL-0-T25-15C



**Eurofast Flat Roof Fasteners**

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

**Annex O.20**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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)

**Annex P.1**

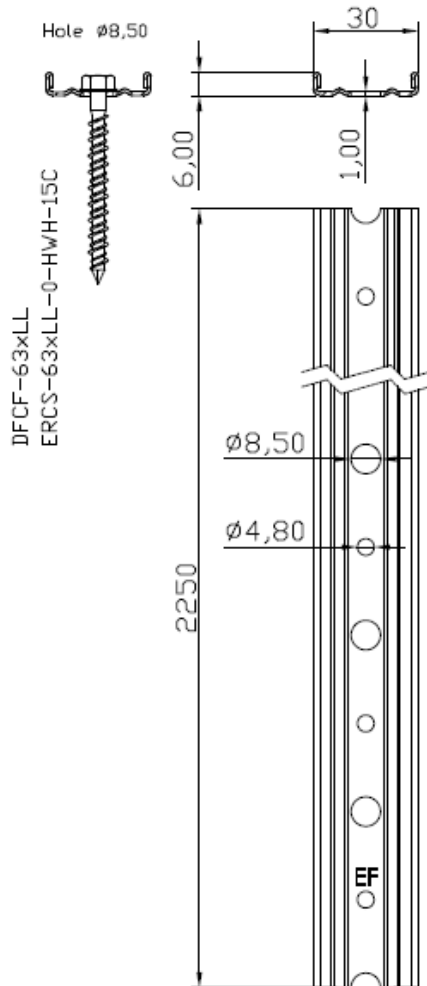
<b>Screw:</b>		
DFCF-63xLL	(ERCS-63xLL-0-HWH-15C)	
<b>Metal pressure plate:</b>		
DVP-EF-5010D	(EPM-50D-6.3-1.0)	
DVP-DF-7070D	(EPM-7070D-7.0-1.0)	
DVP-EF-7007D	(EPM-70D-6.0-0.7)	
DVP-EF-7010D	(EPM-70D-6.5-1.0)	
DVP-EF-8040D	(EPM-8040D-6.5-1.0)	
DVP-DF-8240D	(EPM-8240D-7.0-1.0)	
DVP-DF-8240XH	(EPM-8240XH-7.0-1.0)	
DVP-DFB-8240D	(EPM-B-8240D-7.0-1.0)	
<b>Termination bar:</b>		
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)	
<b>Substrate:</b>		
Concrete	C12/15, C20/25, C25/30	EN 206
<b>Installation data:</b>		
HUKAD type:		Hex Washer HUKAD 8 mm
Effective anchoring depth $h_{ef}$ :		$\geq 25$ 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**

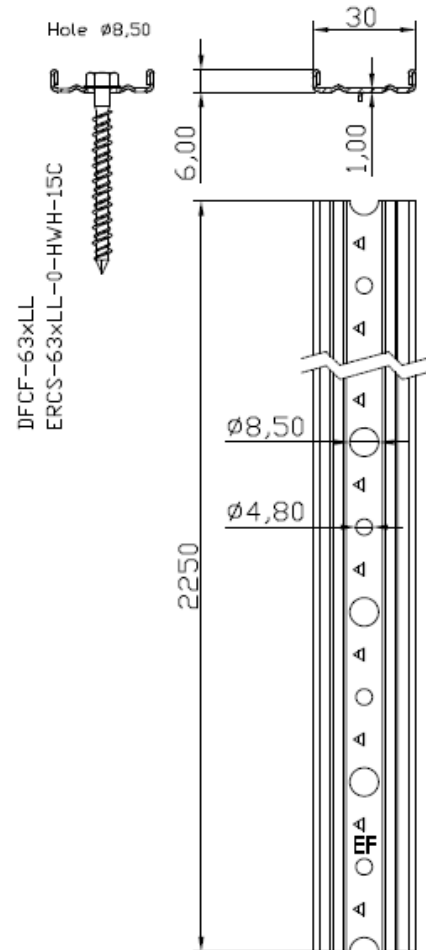
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.2**

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

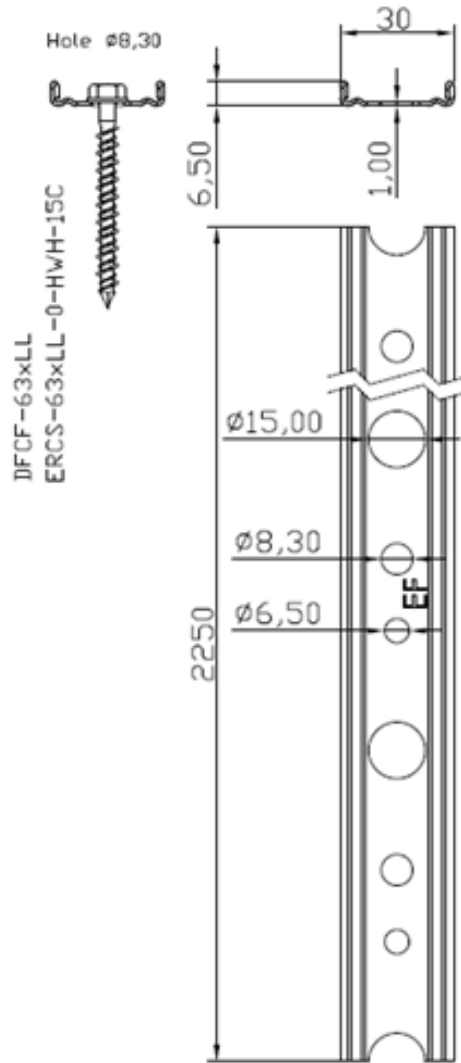


**Eurofast Flat Roof Fasteners**

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.3**

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

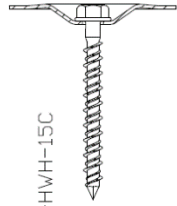


**Eurofast Flat Roof Fasteners**

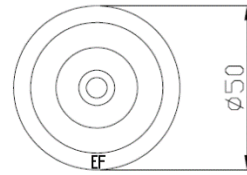
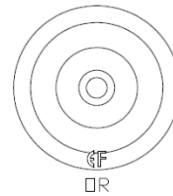
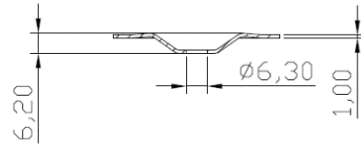
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.4**

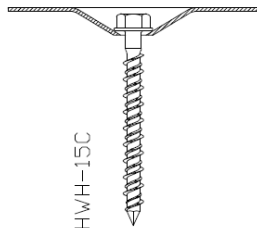
DVP-EF-5010D or EPM-50D-6.3-1.0



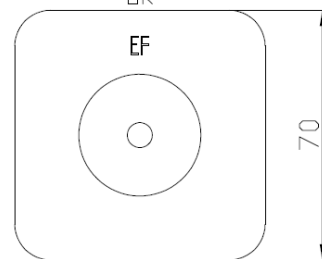
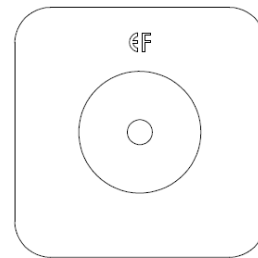
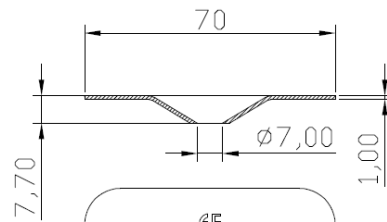
DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



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



DFCF-63xLL  
ERCS-63xLL-0-HWH-15C

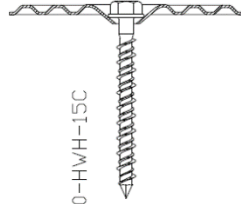


**Eurofast Flat Roof Fasteners**

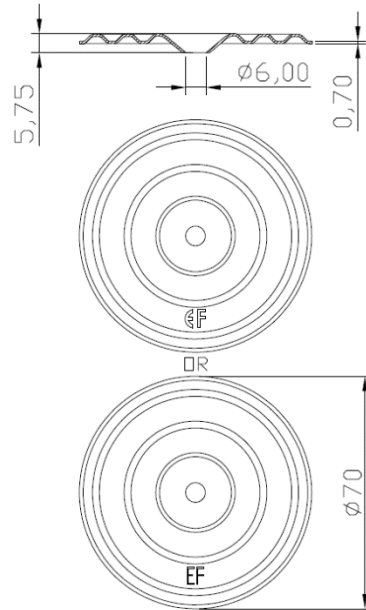
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.5**

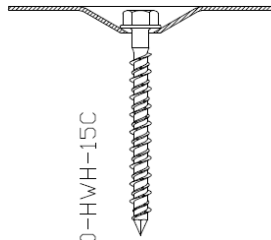
DVP-EF-7007D or EPM-70D-6.0-0.7



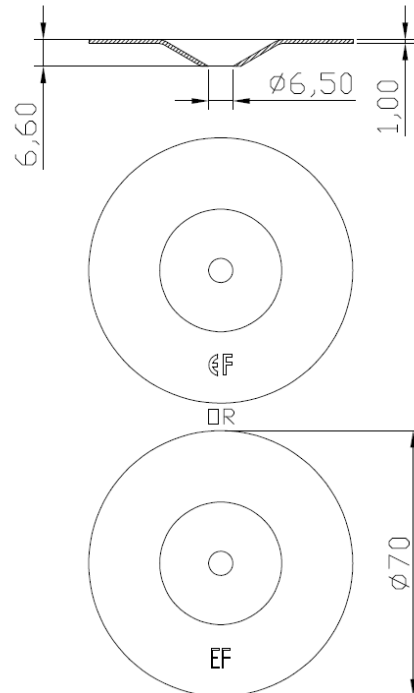
DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



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



DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



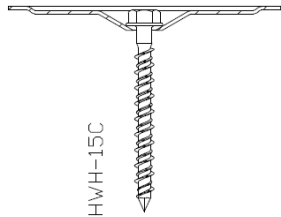
**Eurofast Flat Roof Fasteners**

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

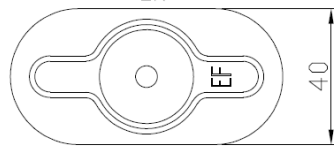
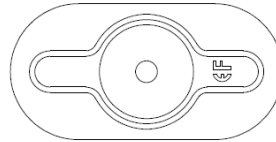
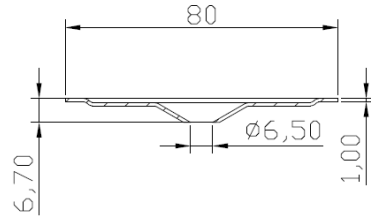
**Annex P.6**



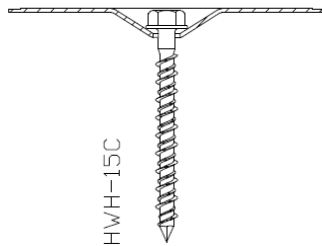
DVP-EF-8040D or EPM-8040D-6.5-1.0



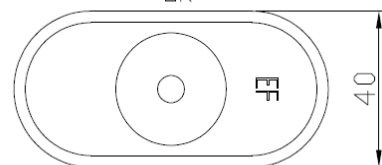
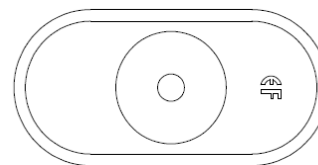
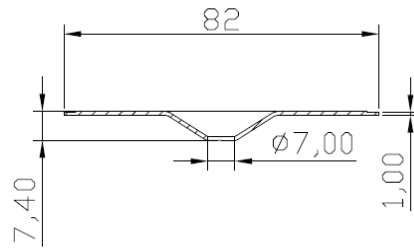
DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



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



DFCF-63xLL  
ERCS-63xLL-0-HWH-15C

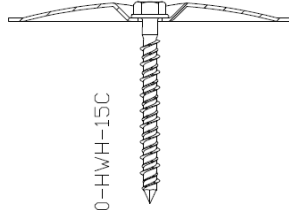


**Eurofast Flat Roof Fasteners**

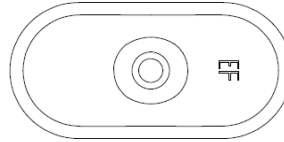
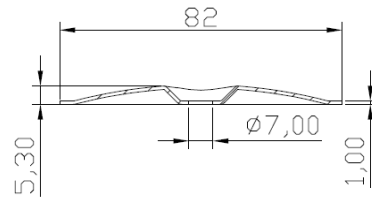
DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.7**

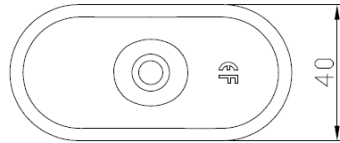
DVP-DF-8240XH or EPM-8240XH-7.0-1.0



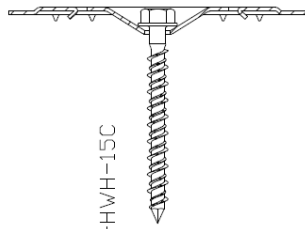
DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



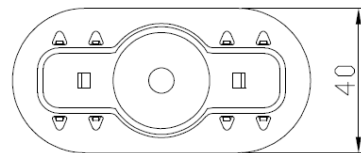
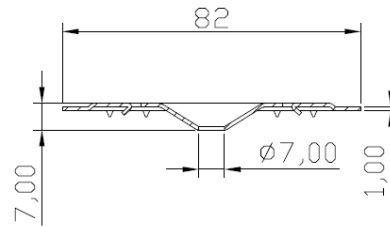
DR



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



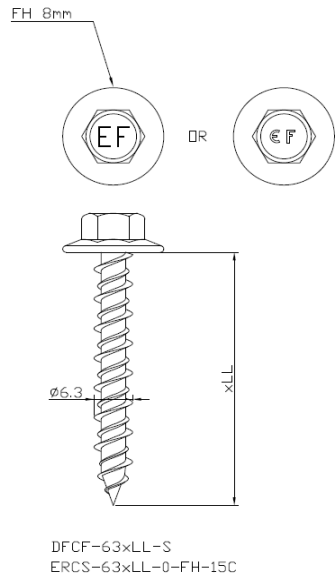
DFCF-63xLL  
ERCS-63xLL-0-HWH-15C



**Eurofast Flat Roof Fasteners**

DFCF-63xLL (ERCS-63xLL-0-HWH-15C)

**Annex P.8**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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

<b>Eurofast Flat Roof Fasteners</b>	<b>Annex R.1</b>
DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)	

**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:**

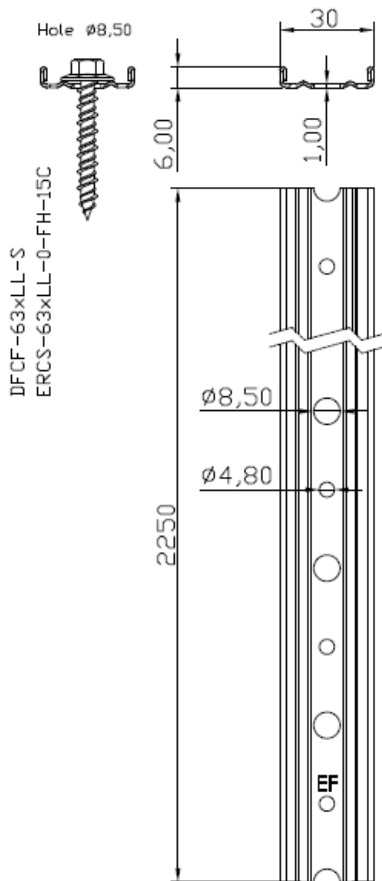
HUKAD type:	Flange HUKAD 8mm
Effective anchoring depth $h_{ef}$ :	$\geq 25$ mm
Drill diameter in concrete C12/15:	5,0 mm
Drill diameter in concrete C20/25:	5,2 or 5,5 mm
Drill diameter in concrete C25/30:	5,5 mm
Drilled hole depth:	$h_{ef} + 10$ mm
Installation force of installation tool:	15 kg + impact
Installation tool speed:	100 rpm

**Eurofast Flat Roof Fasteners**

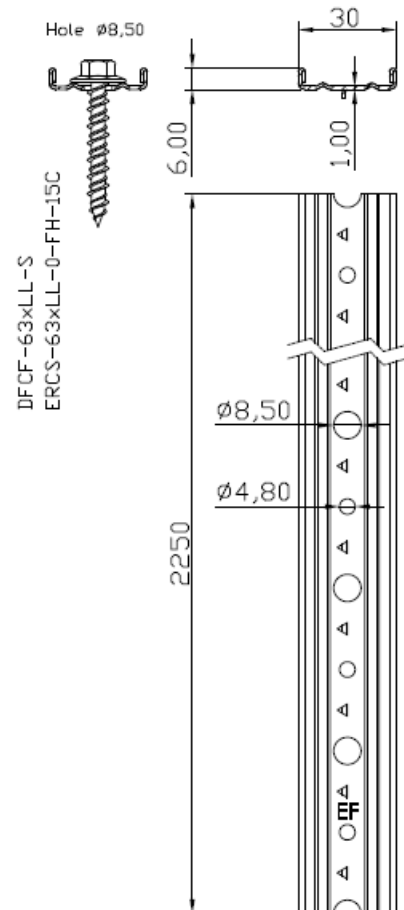
DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

**Annex R.2**

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

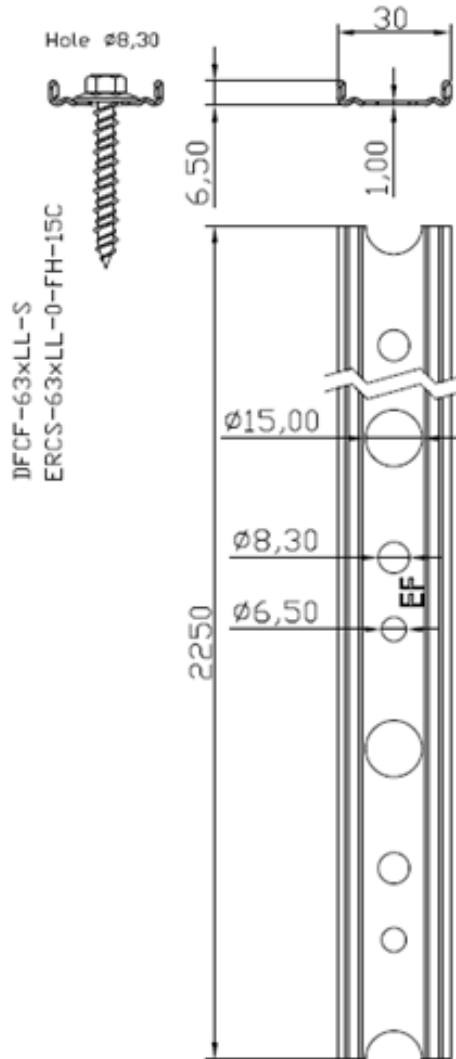


**Eurofast Flat Roof Fasteners**

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

**Annex R.3**

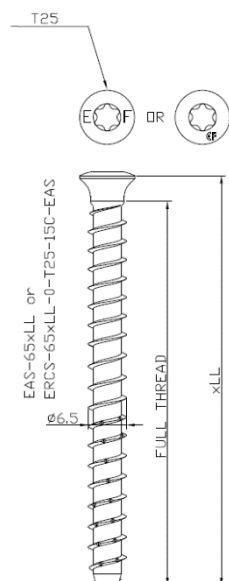
EDF-BAR-F-TUBE or  
ETM-T-2250-30-6.5-8.3-15.0-1.0



**Eurofast Flat Roof Fasteners**

DFCF-63xLL-S (ERCS-63xLL-0-FH-15C)

**Annex R.4**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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)

## Annex S.1

**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:**

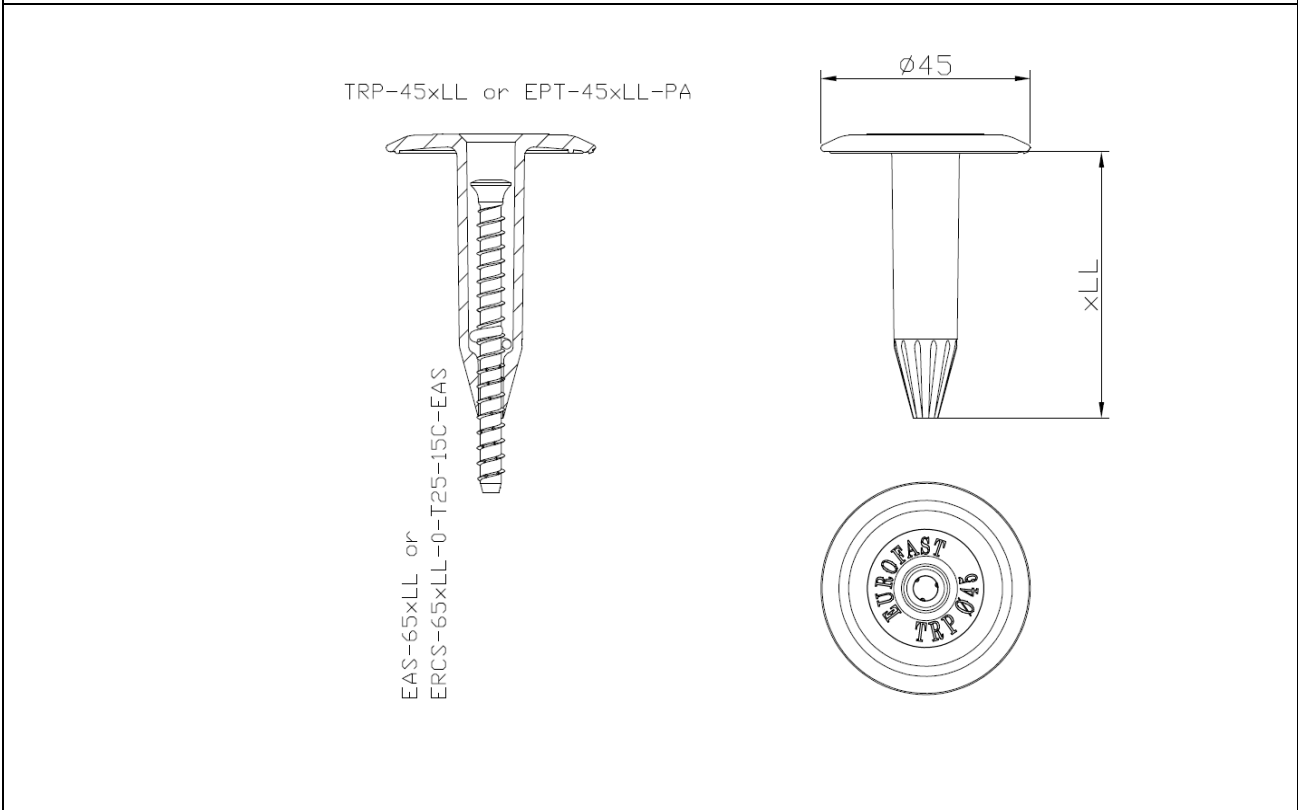
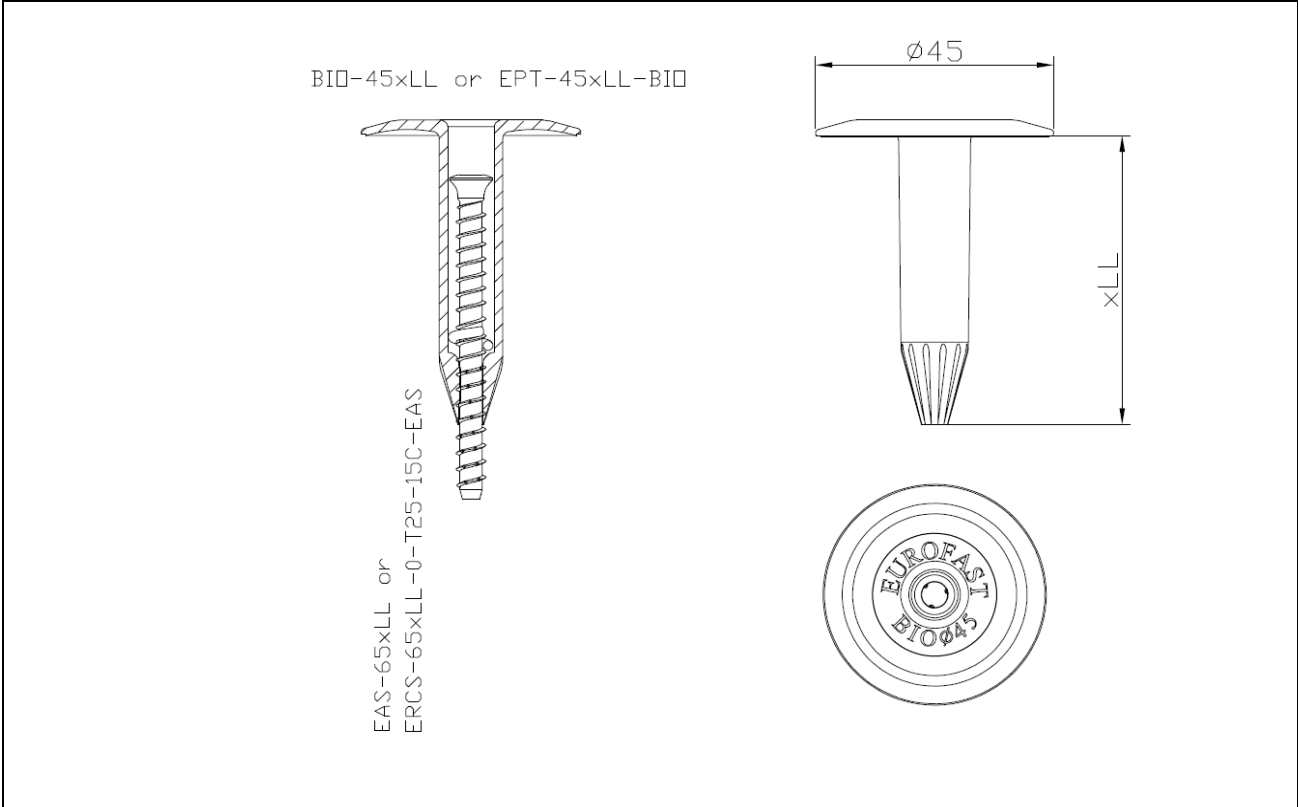
HUKAD type: Raised Bugle HUKAD  
 Recess: TX25  
 Effective anchoring depth  $h_{ef}$ :  $\geq 25$  mm  
 Drill diameter in concrete C12/15: 5,0 mm  
 Drill diameter in concrete C20/25: 5,2 or 5,5 mm  
 Drill diameter in concrete C25/30: 5,5 mm  
 Drilled hole depth:  $h_{ef} + 10$  mm  
 Installation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

**Eurofast Flat Roof Fasteners**

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

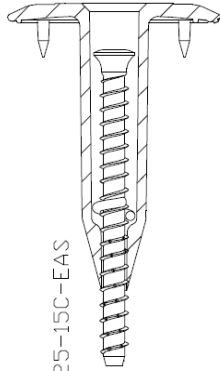
**Annex S.2**



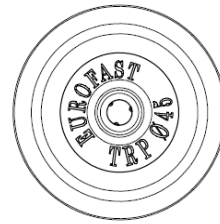
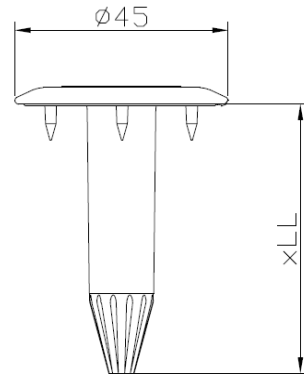


<b>Eurofast Flat Roof Fasteners</b>	<b>Annex S.3</b>
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)	

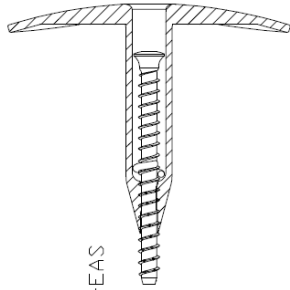
TRP-45xLL or EPT-45xLL-PA



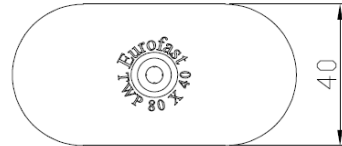
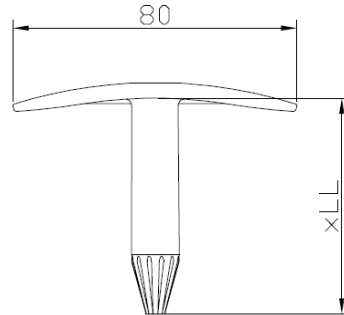
EAS-65xLL or  
ERCS-65xLL-0-T25-15C-EAS



TWP-8040xLL or EPT-8040xLL-PA



EAS-65xLL or  
ERCS-65xLL-0-T25-15C-EAS

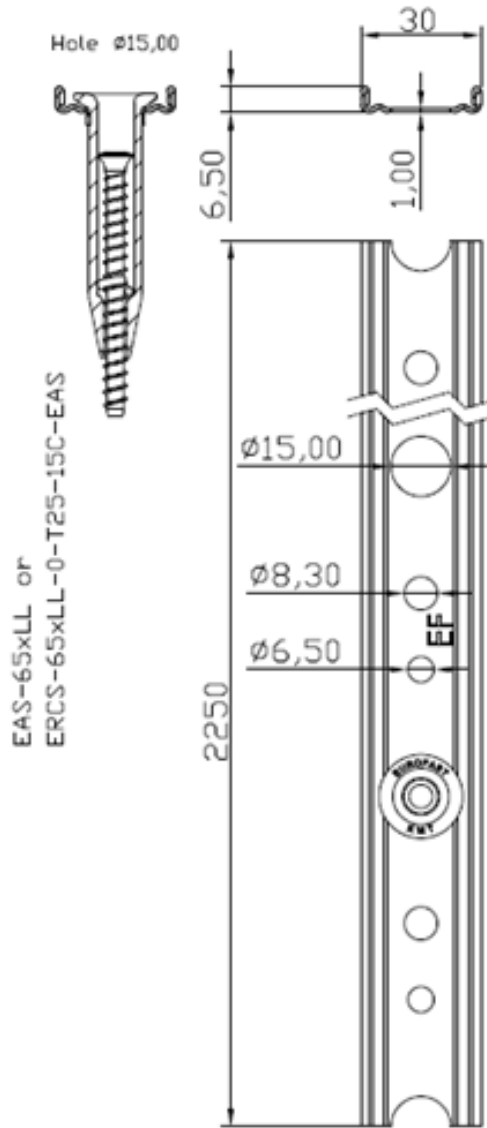


**Eurofast Flat Roof Fasteners**

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

**Annex S.4**

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

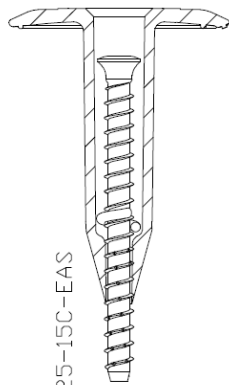


**Eurofast Flat Roof Fasteners**

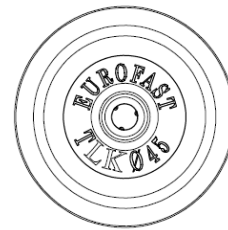
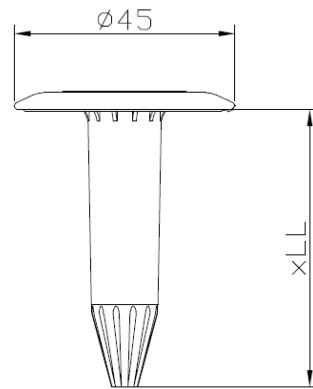
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

**Annex S.5**

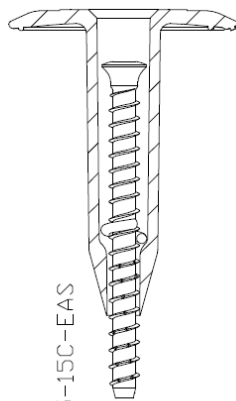
TLK-45xLL or EPT-45xLL-PP



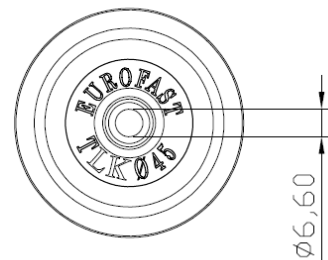
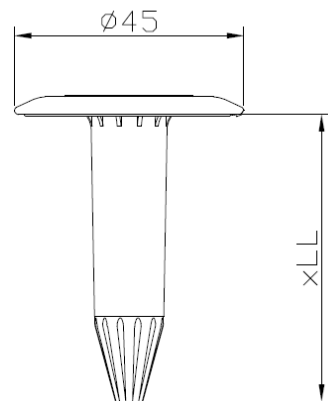
EAS-65xLL or  
ERCS-65xLL-0-T25-15C-EAS



HTLK-45xLL or EPT-□-45xLL-PP



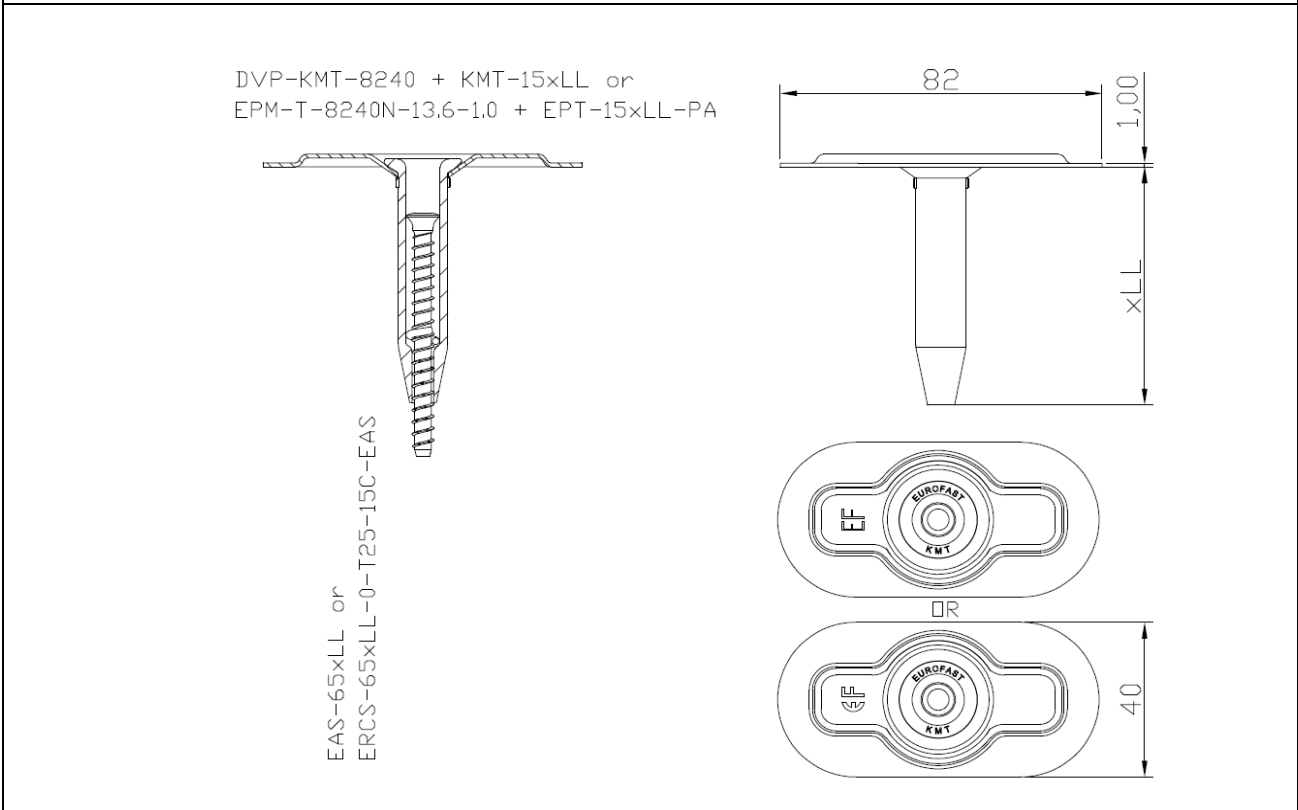
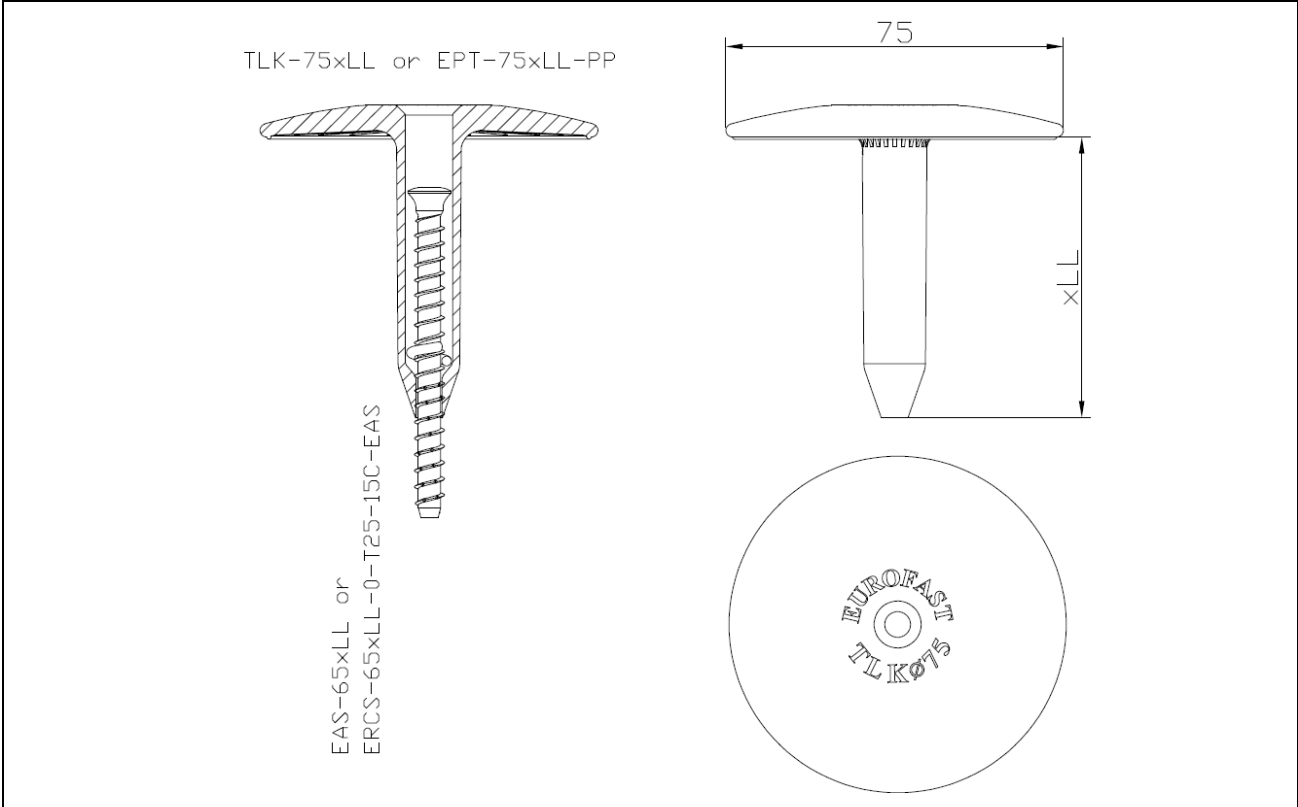
EAS-65xLL or  
ERCS-65xLL-0-T25-15C-EAS



**Eurofast Flat Roof Fasteners**

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

**Annex S.6**

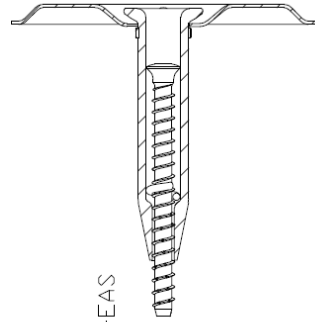


**Eurofast Flat Roof Fasteners**

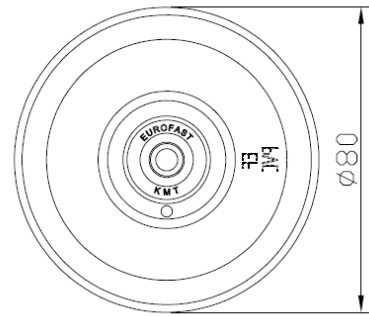
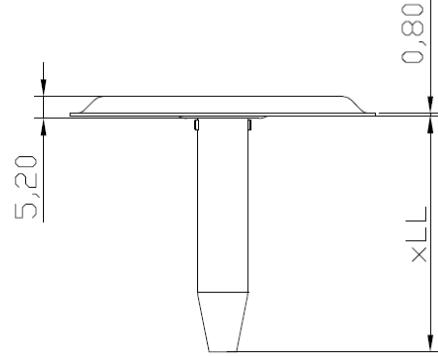
**Annex S.7**

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

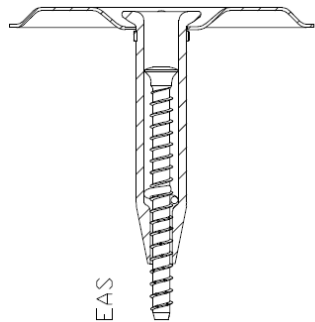
EPM-T-IP-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IP-80-13.6-0.8 + EPT-15xLL-PA



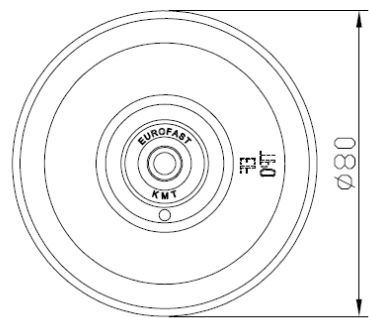
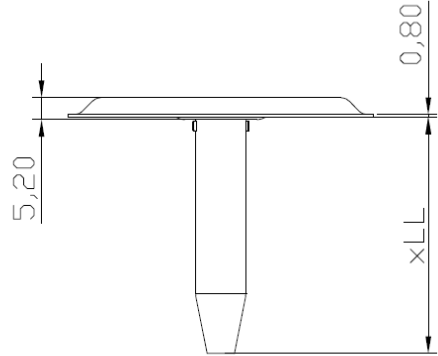
EAS-65xLL or  
 ERCS-65xLL-0-T25-15C-EAS



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



EAS-65xLL or  
 ERCS-65xLL-0-T25-15C-EAS

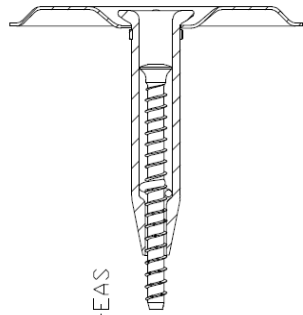


**Eurofast Flat Roof Fasteners**

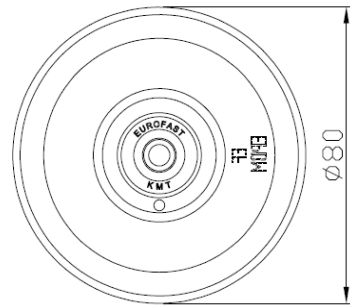
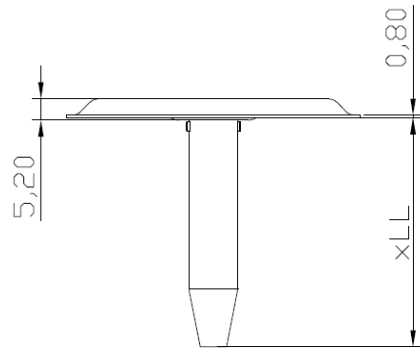
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

**Annex S.8**

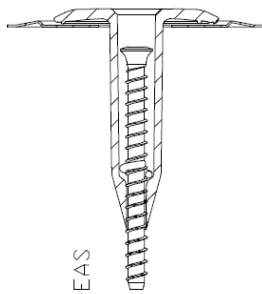
EPM-T-IE-80-13.6-0.8 + KMT-15xLL or  
 EPM-T-IE-80-13.6-0.8 + EPT-15xLL-PA



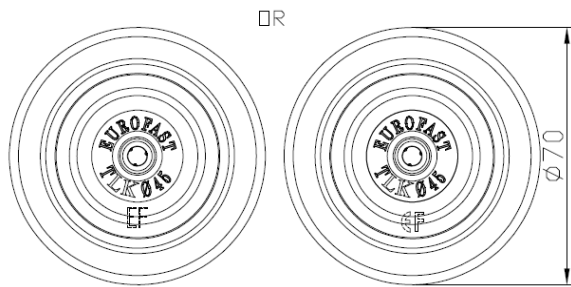
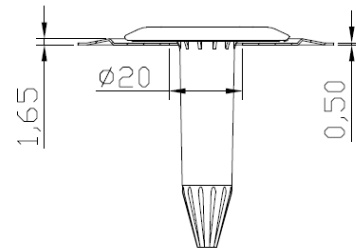
EAS-65xLL or  
 ERCS-65xLL-0-T25-15C-EAS



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



EAS-65xLL or  
 ERCS-65xLL-0-T25-15C-EAS

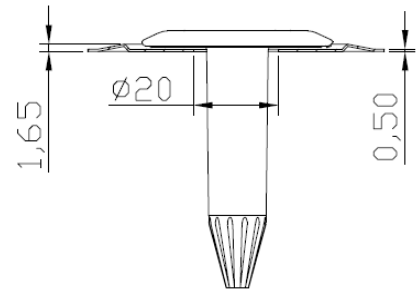
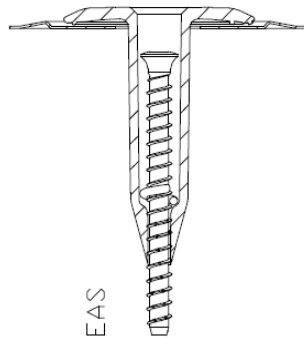


**Eurofast Flat Roof Fasteners**

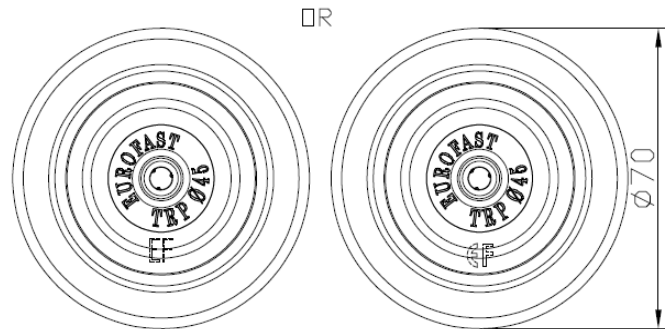
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)

**Annex S.9**

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



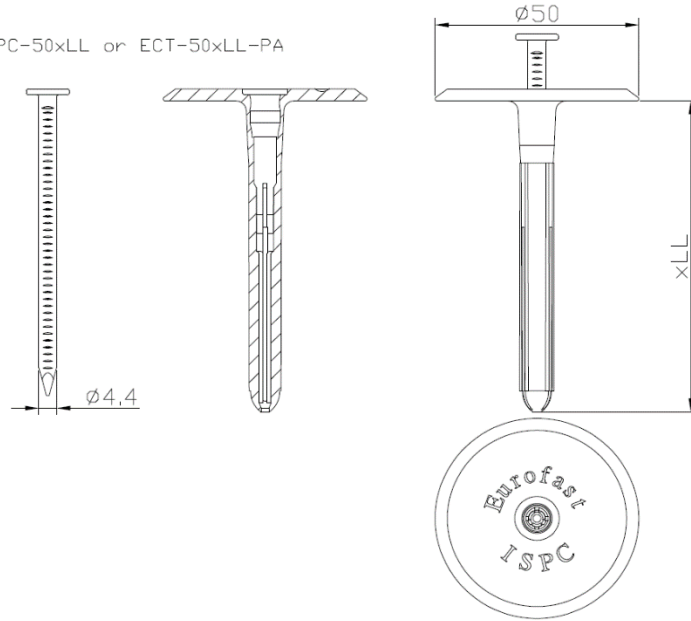
EAS-65xLL or  
 ERCS-65xLL-0-T25-15C-EAS



<b>Eurofast Flat Roof Fasteners</b>	
EAS-65xLL (ERCS-65xLL-0-T25-15C-EAS)	<b>Annex S.10</b>



ISPC-50xLL or ECT-50xLL-PA



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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

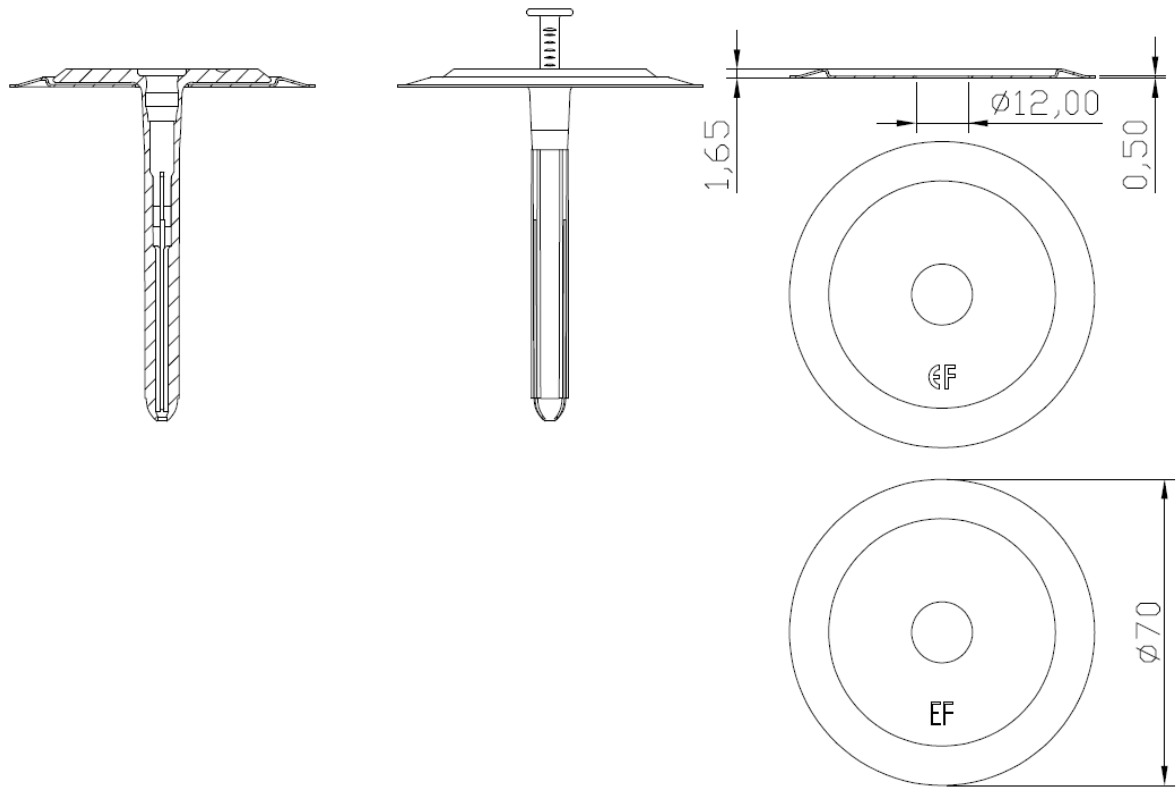
**Installation data:**  
Effective anchoring depth  $h_{ef}$ :  $\geq 25$  mm  
Drill diameter: 8,0 mm  
Drilled hole depth in concrete:  $h_{ef} + 15$  mm  
Installation tool: hammer

## Eurofast Flat Roof Fasteners

ISPC-50xLL (ECT-50xLL-PA)

Annex T.1

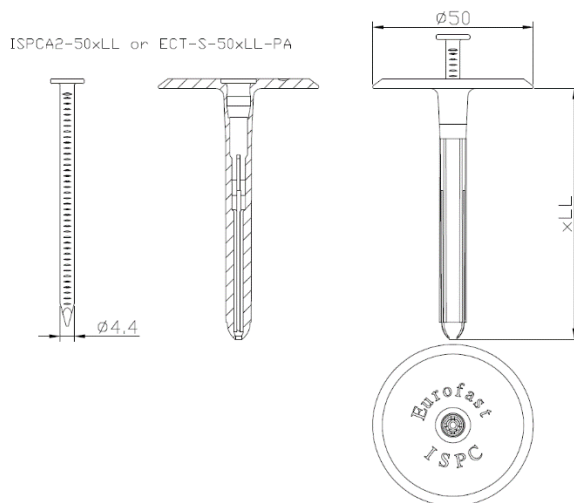
ISPC-50xLL + DVP-ISPC 70N or  
ECT-50xLL-PA + EPM-ECT-70N-12,0-0,5



**Eurofast Flat Roof Fasteners**

ISPC-50xLL (ECT-50xLL-PA)

**Annex T.2**



Characteristic Values of Axial Pull-Out Resistance [kN] (according to Figure 3 of UKAD 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 Figures 4 and 5 of UKAD 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

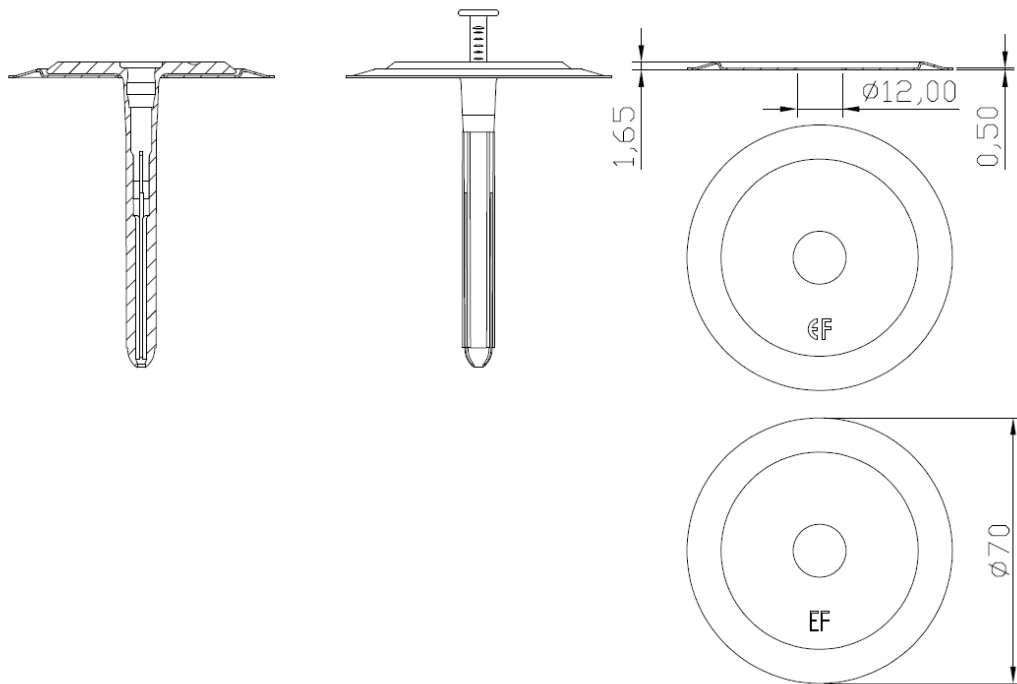
<b>Screw:</b> ISPCA2-50xLL (ECT-S-50xLL-PA)	
<b>Metal pressure plate:</b> DVP-ISPC 70N (EPM-ECT-70N-12.0-0.5)	
<b>Substrate:</b> Concrete	C12/15, C20/25, C25/30 EN 206
<b>Installation data:</b> Effective anchoring depth $h_{ef}$ :	$\geq 25$ mm
Drill diameter:	8,0 mm
Drilled hole depth:	$h_{ef} + 15$ mm
Installation tool:	hammer

## Eurofast Flat Roof Fasteners

ISPCA2-50xLL (ECT-S-50xLL-PA)

Annex U.1

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)

**Annex U.2**



**British Board of Agrément,**  
1<sup>st</sup> Floor Building 3,  
Hatters Lane,  
Croxley Park  
Watford  
WD18 8YG