

FLAT-10



- Perfect, deep fit
- Large format - 10 units per sq. m.
- Exclusive BorjaJET finishes
- Lightweight



> Klinker



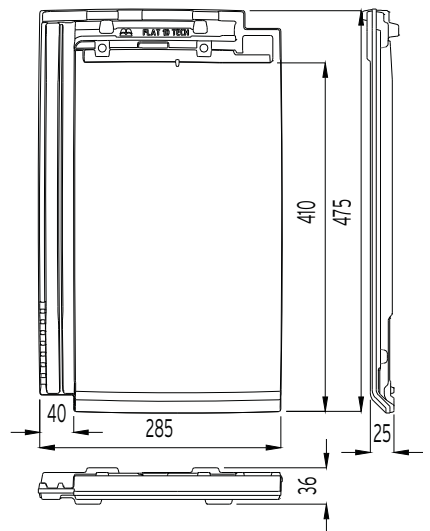
Maximum Surface Flatness



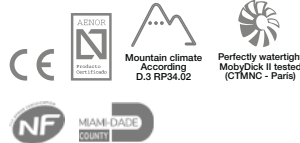
Mountain climate



Longitudinal Overlap 35 mm



Dimensions	475 mm x 285 mm
Minimum pitch recommended	30% - 17° (*)
Weight	3,5 Kg./Unit
Units / sq. m.	10.20 Units
Units per LM eave line	4 Units
Useful width	245 mm
Useful length (Batten distance) VARIABLE	365-400 mm
Pallet data	(T1) 252 Units / 885 Kg. (T2) 336 Units / 1,180 Kg.
Minimum order	6 Units**



Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of $\pm 2\%$ is allowed on the dimensions of the roof tiles according to EN 1024. The certified characteristics for the NF Terracotta tiles are: Structural faults, the geometric characteristics, resistance to flexural strength, impermeability, frost resistance for all products made with red clay. AFNOR Certification / 11 rue Francis de Pressensé / 93571 LA PLAINE / SAINT-DENIS CEDEX / www.marque-nf.com

(*) In zone 1 (protected area), arranged in staggered formation with waterproof membrane and batten distance of 365 mm on a skirt of up to 6.5 m. Check pitch panel according to the roof length and the geographical area according to EN 136020.

** The tiles are subject to minimum order and must be multiples thereof.

FLAT-10 / FINISHES

PLAIN COLOUR



Graphite



Chocolate



Mid Grey



Natural Black



Leon Matte



Ártica

NATURE



Red



Moss Red



Ceramic SLATE



Nepal Orange



Paris Ocre

Ceramic WOOD



Toronto Oak



Weathered Cedar

Ceramic CEMENT



Sidney Graphite

Ceramic OXIDE



Tokyo Copper

Ceramic COTTO



Ibiza Pink

NOTES: Leon Matte, Ceramic Slate and Weathered Cedar are models with texture. All Flat-10 finishes are produced only on 1 side colour.

ACCESSORIES

FLAT ROOF TILES



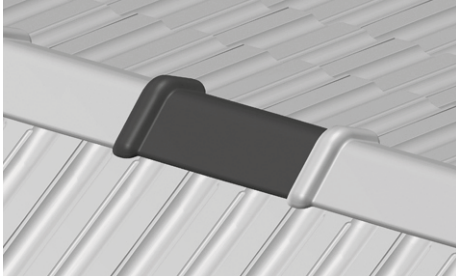
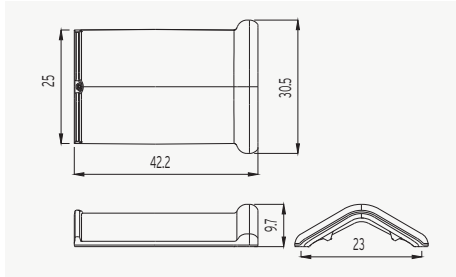
FLAT-10



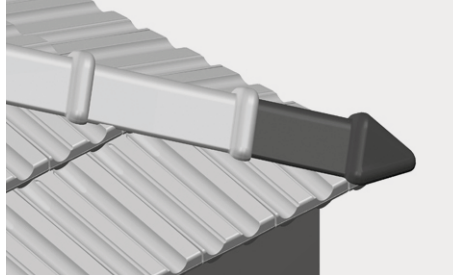
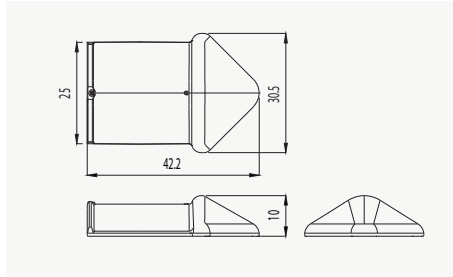
A tolerance of $\pm 2\%$ is allowed on the dimensions of the roof tiles according to EN 1024. Dimensions in centimeters. Check finishing colours for different accessories. Accessories are subject to minimum order and must be multiples thereof. For textured roof tiles finishes, the Half and Ventilation roof tiles are with texture; other accessories are without texture.

ACCESSORIES

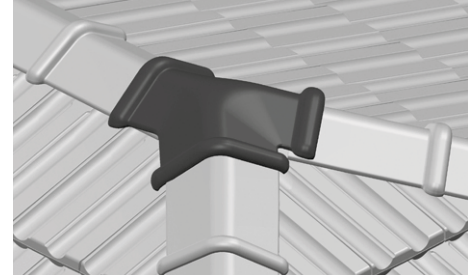
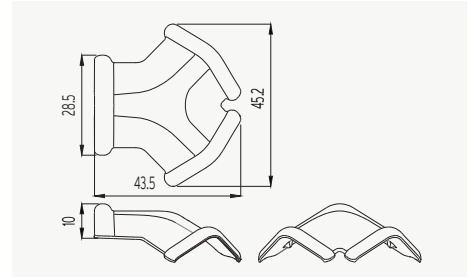
1 Angular Ridge



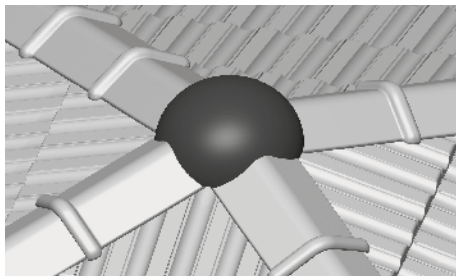
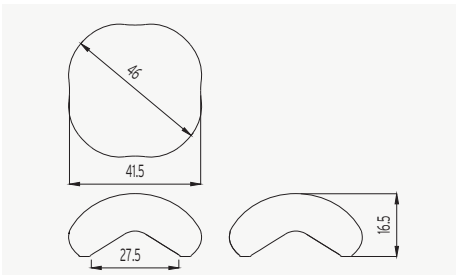
2 Angular Hip Starter



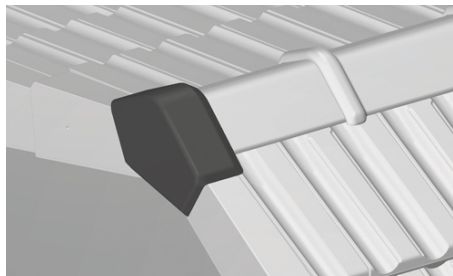
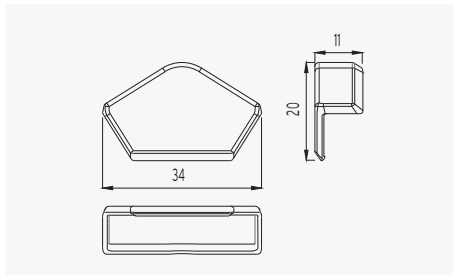
3 Angular 3 Ways



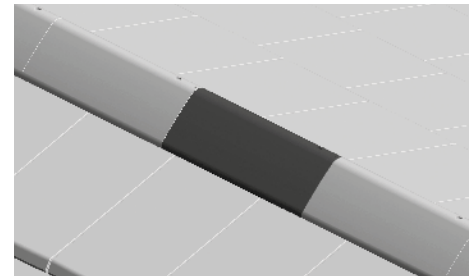
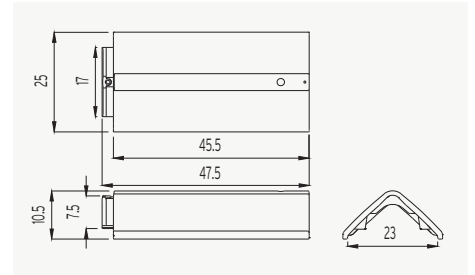
4 Angular 4 Ways



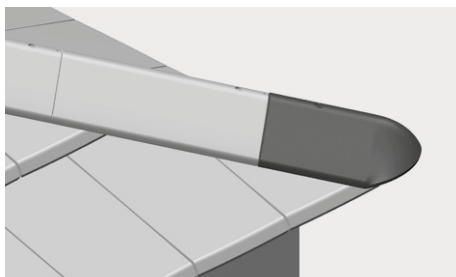
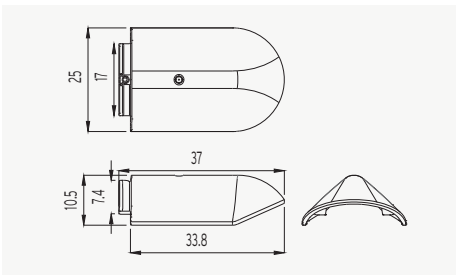
5 Straight End Cap



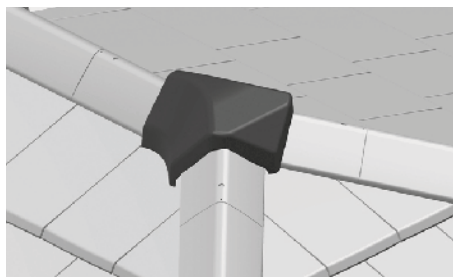
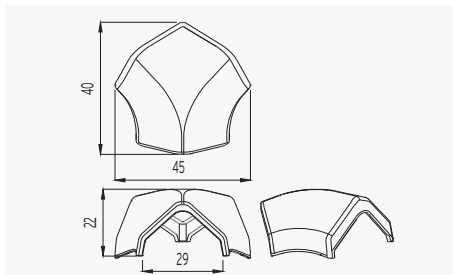
6 100° Ridge



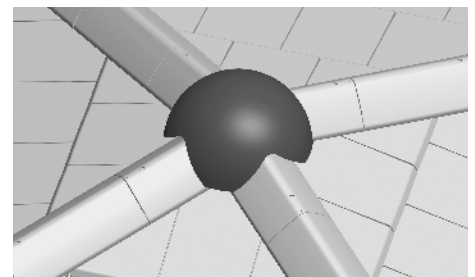
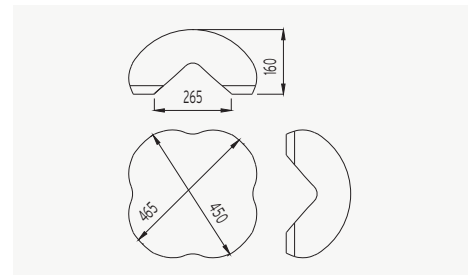
7 100° Hip Starter



8 100° 3 Ways

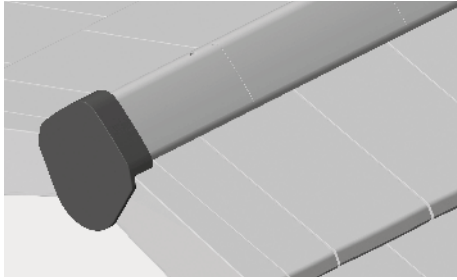
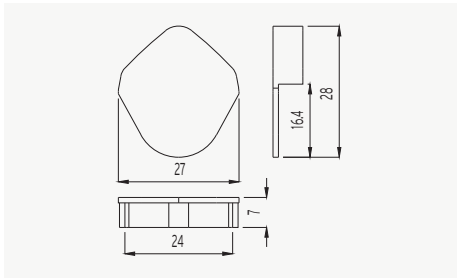


9 100° 4 Ways

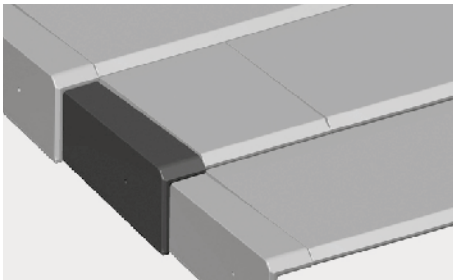
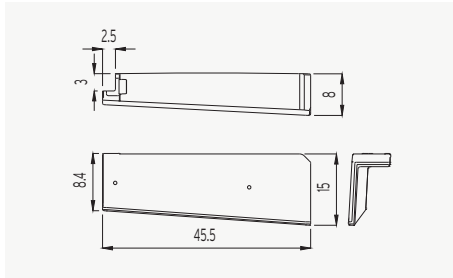


ACCESSORIES

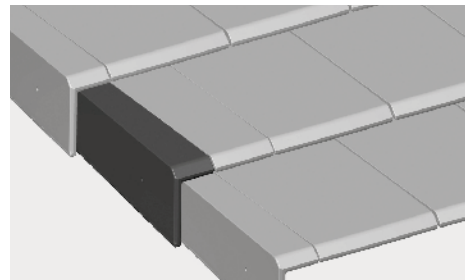
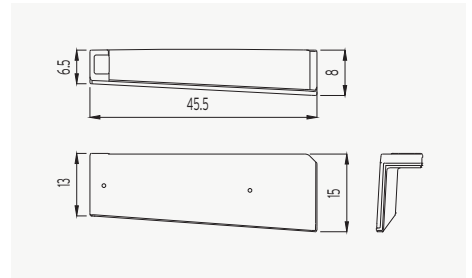
10 100° End Cap



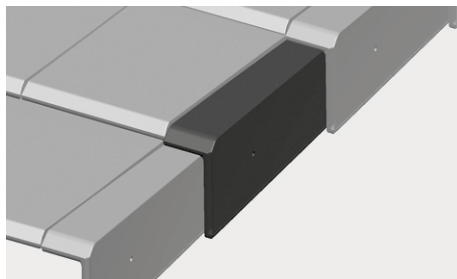
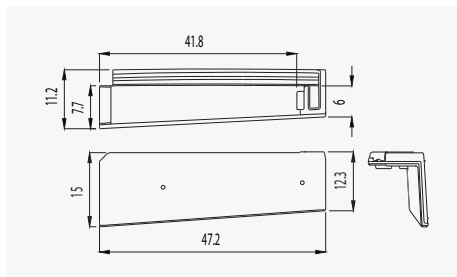
11 Interlocking Edge FLAT-5XL Left



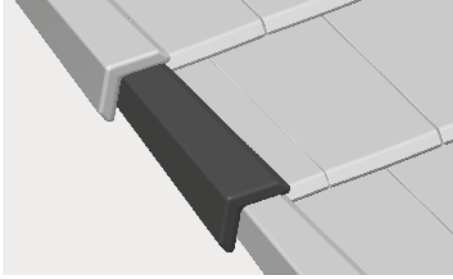
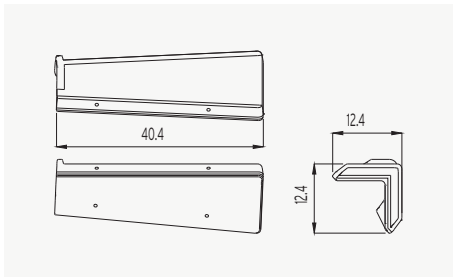
12 Interlocking Edge Left



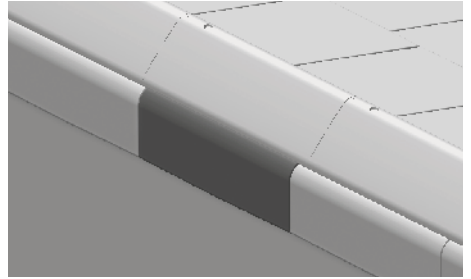
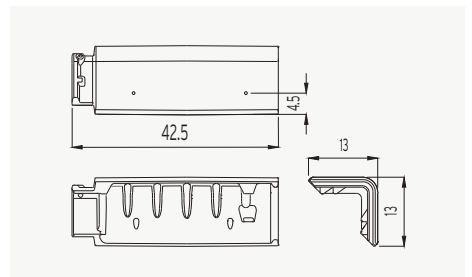
13 Interlocking Edge Right



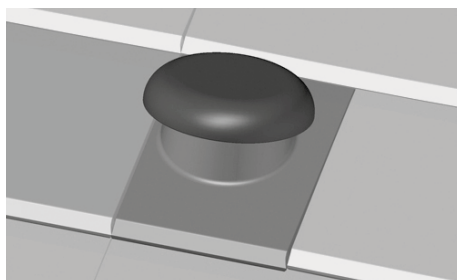
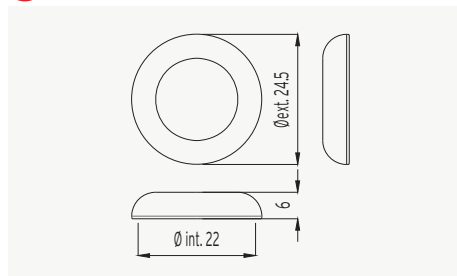
14 Straight Edge FLAT (Left/Right)



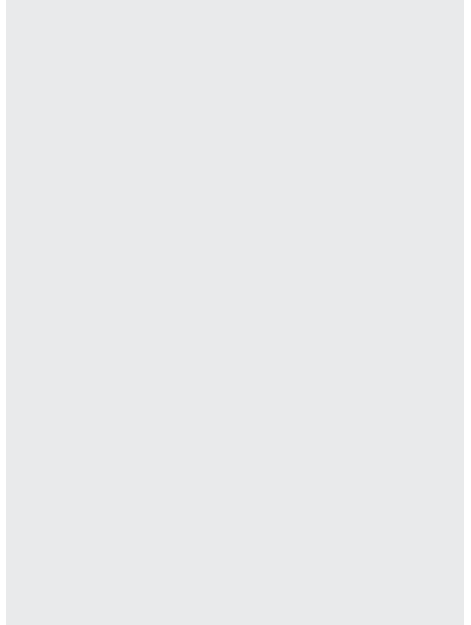
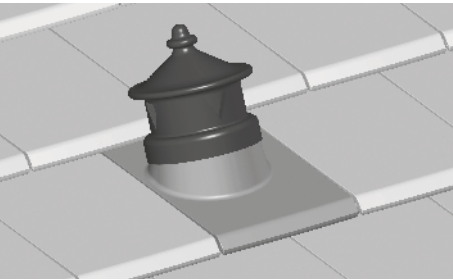
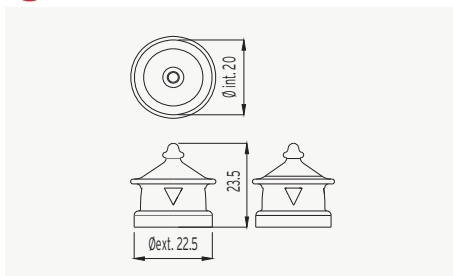
15 Universal Angular Edge (on monopitch)



16 Ventilation Cap

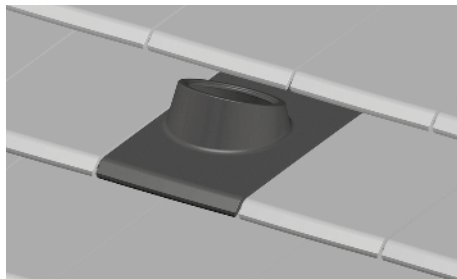
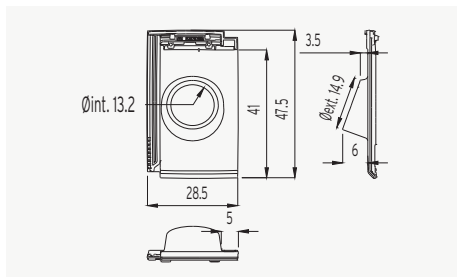


17 Chimney d.140

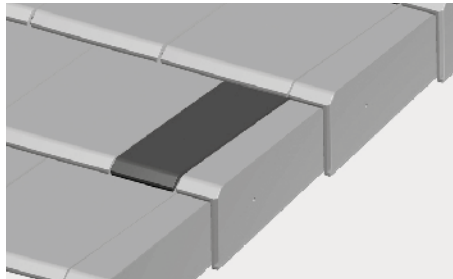
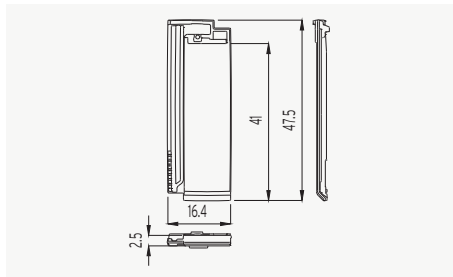


ACCESSORIES

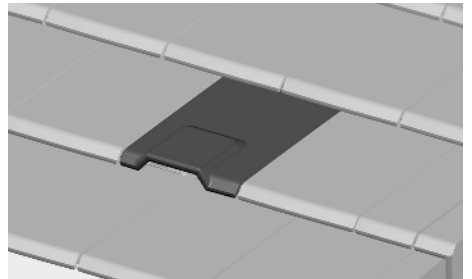
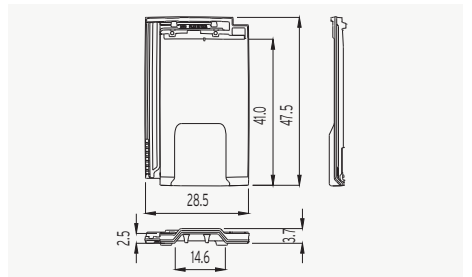
22 Chimney Carrier FLAT-10 d.140



23 Half FLAT-10



24 Ventilation FLAT-10



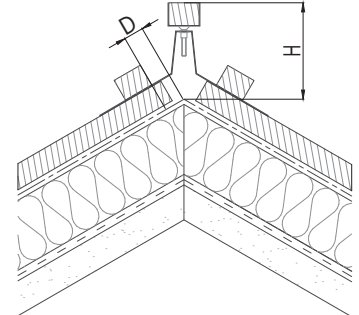
FLAT ROOF TILES INSTALLATION

ROOF SLOPES

Each roof must be planned taking into account where it should be built and the length of the deck, in accordance with the technical standards applicable in each territory. It is for this reason that for each area and location, must take into account of the minimum slopes for installation and the roof length.

Pitch panel according to the roof length and the location.
(according to UNE - 136020)

Location	Roof length up to 6.5 m	Roof length from 6.5 to 9 m	Roof length from 9 to 12 m
Protected	42% - 22,5°	50% - 26,5°	55% - 29°
Normal	50% - 26,5°	55% - 29°	65% - 33°
Exposed	65% - 33°	75% - 37°	85% - 40,5°



Use the breathable/waterproof membrane on the support.
A special study should be carried out for roof length more than 12m in length (ask us).

°	FLAT-5XL 100° Ridge			FLAT-10 100° Ridge			TECHNICA-10 Angular Ridge	
	20°	30°	40°	20°	30°	40°	20°	30°
D (mm)	60	55	55	70	65	65	90	55
H (mm)	60	45	35	60	45	35	50	40

D - Distance between the last batten and ridge line; H - Height of ridge batten; ° - Pitch
The technical drawing is an example of construction. The roof tiles must be overlapped approx. 7-9 cm with the ridge.

FITTING

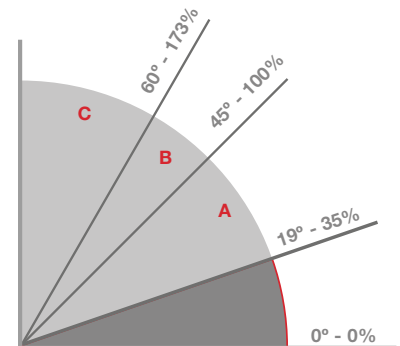
Roof tiles on the roof surface must be fixed to the support to a greater or lesser extent, depending on the pitch. In the case of singular points such as eave lines, edges, hip lines, valleys, joints and the ridge line, all roof tiles and accessories of these joints must be fixed to the battens.

We recommend that all roof tiles that form the perimeter of each skirt be fixed mechanically.

Batten type:	Metallic
	Treated wood
Dry installation:	Screws, nails and clips (depending on the support)
	Roof tiles adhesives

- A** 35% - 100% The roof tiles will rest on battens, since they are provided with nib support.
- B** 100%-173% All the roof tiles around the perimeter of each roof surface must be fixed and at least one in every five should be fixed in a regular manner.
- C** > 173% In areas with strong winds, exposed areas or areas with basic seismic acceleration of > 0.12g, all roof tiles should be fixed mechanically to the battens.

Installation must comply with the technical standards applicable in each territory Code of practice for design and fixing of roofs with clay roofing tiles and Tejas Borja specifications.



Less than 35% - Total waterproof of the entire roof surface is required for any pitch.

VENTILATION

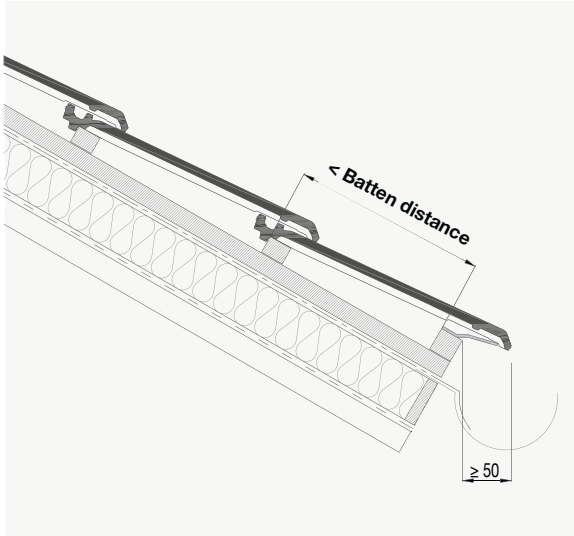
Under-tile ventilation is necessary at all times. This will guarantee the durability of the material used to build the roof with their optimal characteristics, improving the hygrothermal performance of the roof tiles against the moisture resulting from condensation.

There must be a continuous air flow between eave lines and ridge line. Therefore, a space must be left between the roof tiles and the support. As a result, eave lines, ridge lines and singular points must never be filled in with mortar, as this will impede micro-ventilation.

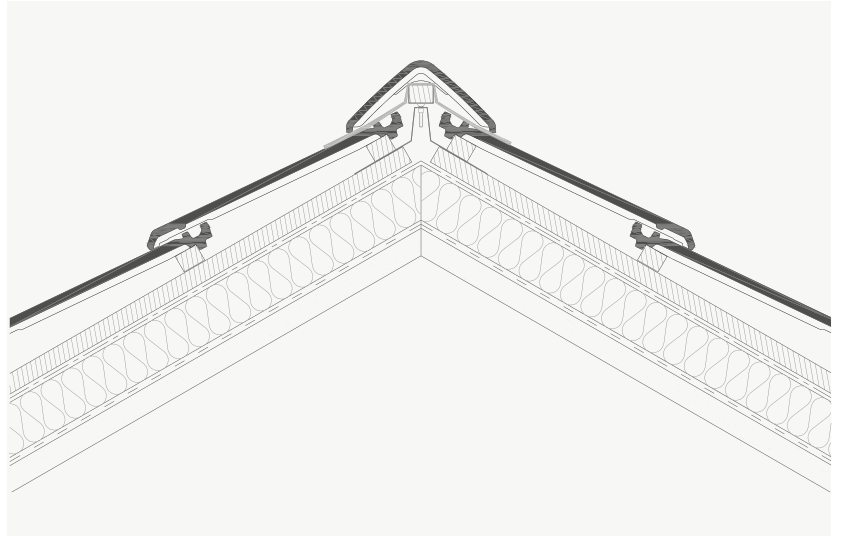
Ventilation roof tiles will also be installed in a uniform manner across the surface of the roof. In case of dry installation, it is recommended that at least 1 ventilation roof tile be used every 10 sq.m. and 4 ventilation roof tiles per each roof skirt.

FLAT-10 ROOF TILES INSTALLATION

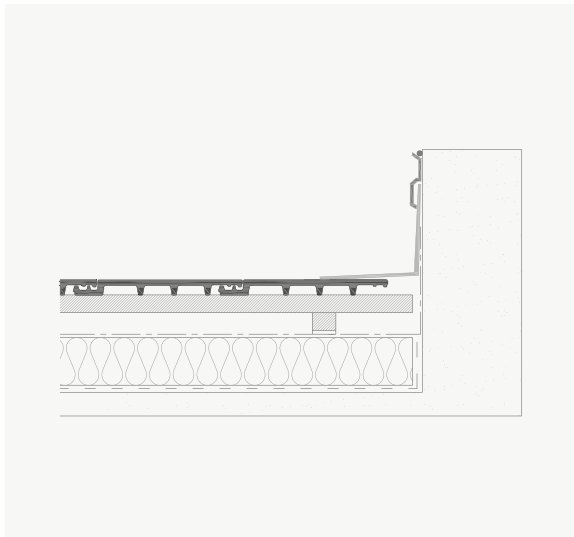
EAVE LINE



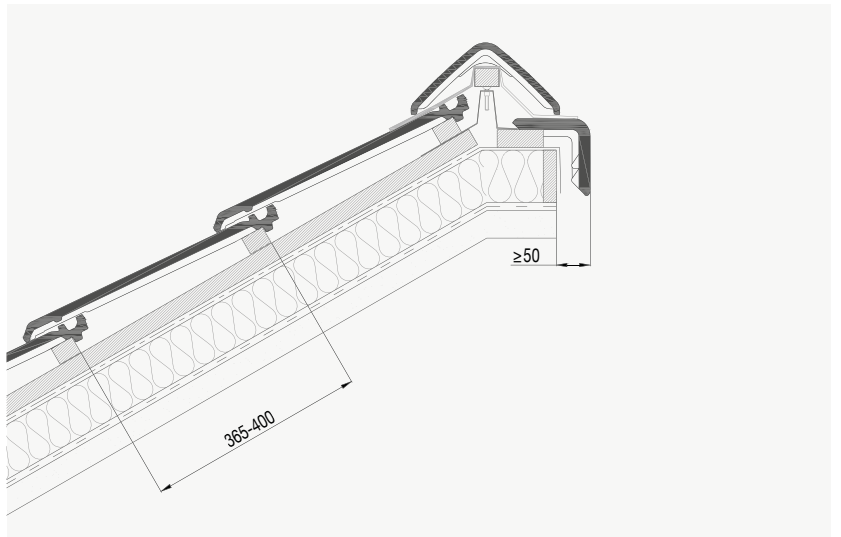
RIDGE LINE



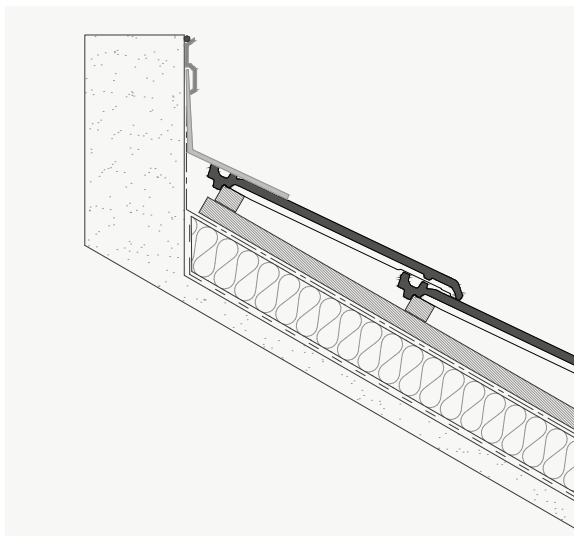
HORIZONTAL FLASHING



MONOPITCH



UPPER FLASHING



GABLES

