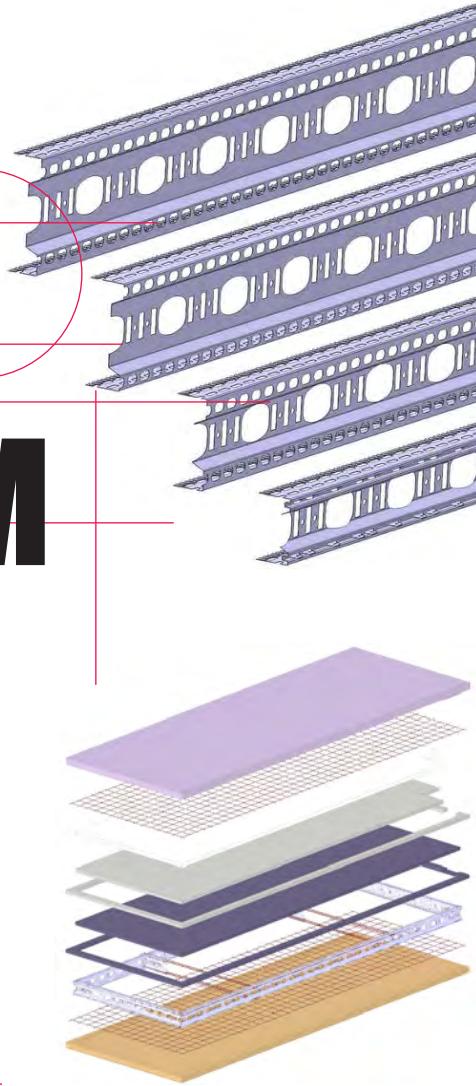


# ECO THERM AL

## Manual user 2021

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**PLEASE READ ALL THE INFORMATION AND INSTRUCTIONS IN THIS MANUAL CAREFULLY BEFORE USING ANY COMPONENT IN THE ECO SYSTEM , COVERED BY INTERNATIONAL PATENT BREVETTO INTERNAZIONALE.**

For any doubt about the correct use of the components described in this manual , please contact B.S. Italia :

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www.bsitaliagroup.com • infobsitalia@styl-comp.it**

**B.S.Italia is Iso 9001 certified and the ECO system is designed and built in accordance with :**

#### **B.S.Italia certifications**



- General parts : Eurocodes and state of the art
- Materials and surface treatment: Standards ISO, EN, DIN, UNI
- Material controls and accredited labs : SINAL - SINAL is a part of EA (European accreditation)  
Quality System : ISO 9001 through IGQ : IGQ is a part of CISQ , which in turn is a part of IQNet Reg. Nr. IT-0188

# SUMMARY

## PRESENTATION OF THE SYSTEM

Warranty of complanarity and advantages	04
Typologies ECO profile and relative panels	05
Thermal isolation and trasmittance calculation	07
ECO fork	08
	09

## ECO PROFILE AND SUPPLEMENTARY REINFORCEMENT

Calculation supplementary reinforcement	10
Reinforcement in correspondence of doors ,windows and riots	11
	12

## Eco PROFILE AND METAL INSERTS

ECO and anchorages inserts REGOLABILI SYSTEM	13
ECO and support inserts ERCOLE SYSTEM	17
ECO and lifting inserts TORRE SYSTEM and SAFELIFT SYSTEM	19

## DIMENTIONING

Dimention for cutting ECO profile	21
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## EXAPLES OF REINFORCEMENTS OF THE ECO THERMAL PANEL

23

## WARNINGS

32

## MARKING

32

## CODES COMPONENTS

3

I The drawings in this manual user are purely indicative

# PRESERATION OF THE SYSTEM

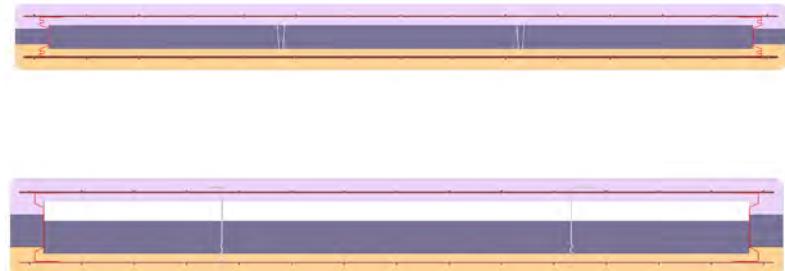
The basic static principle of the system ECO TEHRMAL consist that the layers of concrete, internal and esternal of the panel "they collaborate" in a controll manner ,through a metal frame with special shape that allow the thermal microdilatations and at the same time support the mechanical stresses received . frame ECO works like a reinforcement , so the thikness of the panel is s direct consequence of the mechanical stresses received (wind force , seismic force , ecc.) , thermal stresses (thermal shock in reason of the thikness and of the thermal insulator ) and of the clear span of inflexion ,result at the position of the windbracing links between panel and structure of the building behind .

The frame ECO performs a dual function :

Reinforcement



Seam

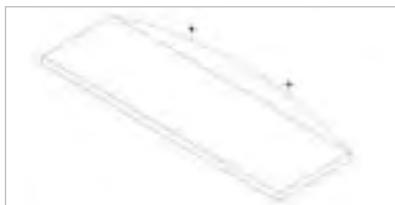


it result accordingly important economical advantages .

Thanks to the features already listed ,the scheme of the traditional layers, based on principle of a layer bearing and one supported is outdated.

The panel with system **ECO THERMAL** result to be very much lighter and economical to compare at the traditional systems results and mostly offer a better relation of slenderness between length and thikness to the full advantage of the static and mechanical properties of the panel.

# WARRANTY OF COMPLANARITY



- The ECO profile achieve a strong CONFINAMENT achieve higher rigidity of the panel at demoulding even with lower concrete resistance
- It allow the correct distribution of the efforts
- It limit significantly the warping with consequent lack of complanarity
- Being a continuous reinforcement prevent mostly the frame edge of the panel from any impact .

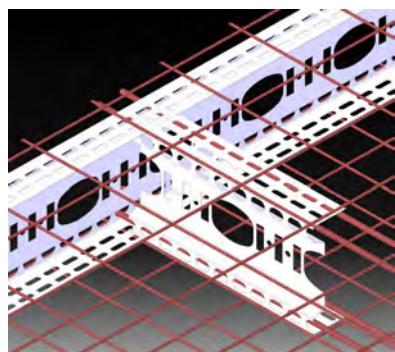


Panel behaviour during edge lift stripping with conventional reinforcement



## ECO - ELASTIC MODULUS

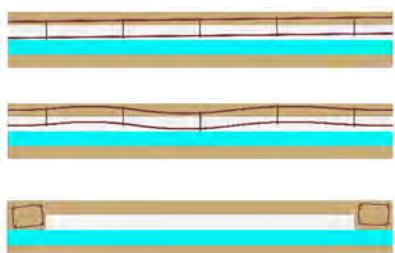
During maturation of the concrete elastic modulus elastico of the material is low : there is a danger of cracks in the panel during demoulding and tilting phases . So with low resistance need reinforcement with relevant elastic modulus , like ECO frame



the nodes of the ECO frame are a interlocking that represent a reciprocal connection .Indeed between traversal profile and that longitudinal can achieve a perfect interlocking of assembly that make all united . (in the traditional reinforcement instead ,the nodes between joist are made for simple link , so the connection are made with simple wire binding...). The complanarity of the reinforcement in the layers of concrete is guaranteed from interlocking of the nodes ECO between elements transversal and longitudinal ( instead the traditional Joists , being disconnect between them ,they not give guarantee of complanarity , no even individually ).Positioning of calculation of the reinforcement is certainly respected ( so reinforcement is where expected ).

## Reinforcement complanarity

the wrong positioning of the reinforcement not complanar at the formwork perform not accordance at theoretical calculation and the different resistance of the whole structure



ECO profile is , due to its complanarity , perfect for the use in the panels with thin layers thickness

# ADVANTAGES

**ECO THERMAL system preserve all advantages of the TRADITIONAL ECO SYSTEM :**

## **Mechanical**

Greater rigidity of the panel for better demoulding with low mechanical resistance of the concrete

This mechanical advantage during demoulding becomes a benefit economic due at :

- decrease in steam heating of the concrete;
- decrease quantity of cement ;
- anticipation of demoulding time ;
- less disputes due to initial warp of the panel.

## **Lightness**

- Less concrete : panels lighter approx.20%;
- less transport effect ;
- inserts lower load ;
- greater thermal insulation .

## **Less labor - greater rapidity**

- Fast assembling of frame reinforcement ;
- one man (instead two ) to bring the joist on shoulder ;
- Very fast cutting .

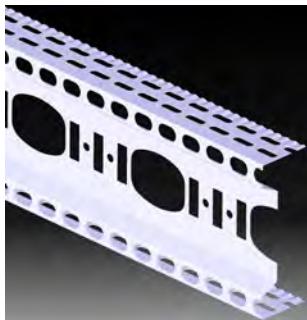
## **Production guarantees**

- Production "no mistake ", profitable with manpower less skilled
- cover rebar guarantee
- complanarity of reinforcement for all length of the panel ;
- avoid typical problem with normal joist to positioning polystyrene in contact ;
- all reusable : zero scraps

## **Economic**

Economic saving of the total cost of the panel

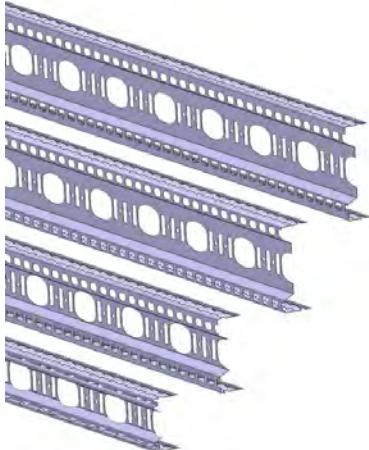
# FRAME OPTIMIZED



Concerning thermal transmission the ECO frame is optimized, Indeed due to his dense puncture and small thickness results a low thermal transmittance **equally distributed**

This particular puncture along all surface, as well special shape and corrugate edging brings evidents benefits concrete adhesion: collaboration of fresh concrete with steel results better than that with traditional reinforcement panels .

## TYPOLOGIES OF PROFILE



For ECO THERMAL system are used four typologies of ECO profile : 130 - 180 - 210 - 230.

It is important remember that during design , the measures of ECO profile for sandwich panel change unlike that that traditional panels

The profile is supplied galvanized-prepainted , on demand, could be supplied stainless steel



$\geq 20$   
ECO H130



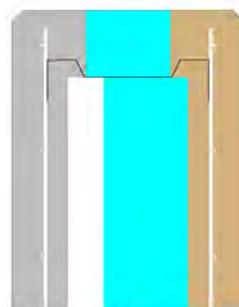
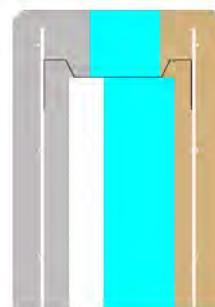
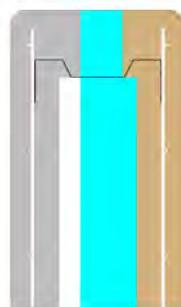
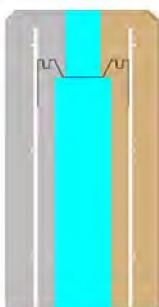
$\geq 24$   
ECO H180



$\geq 28$   
ECO H210



$\geq 30$   
ECO H230





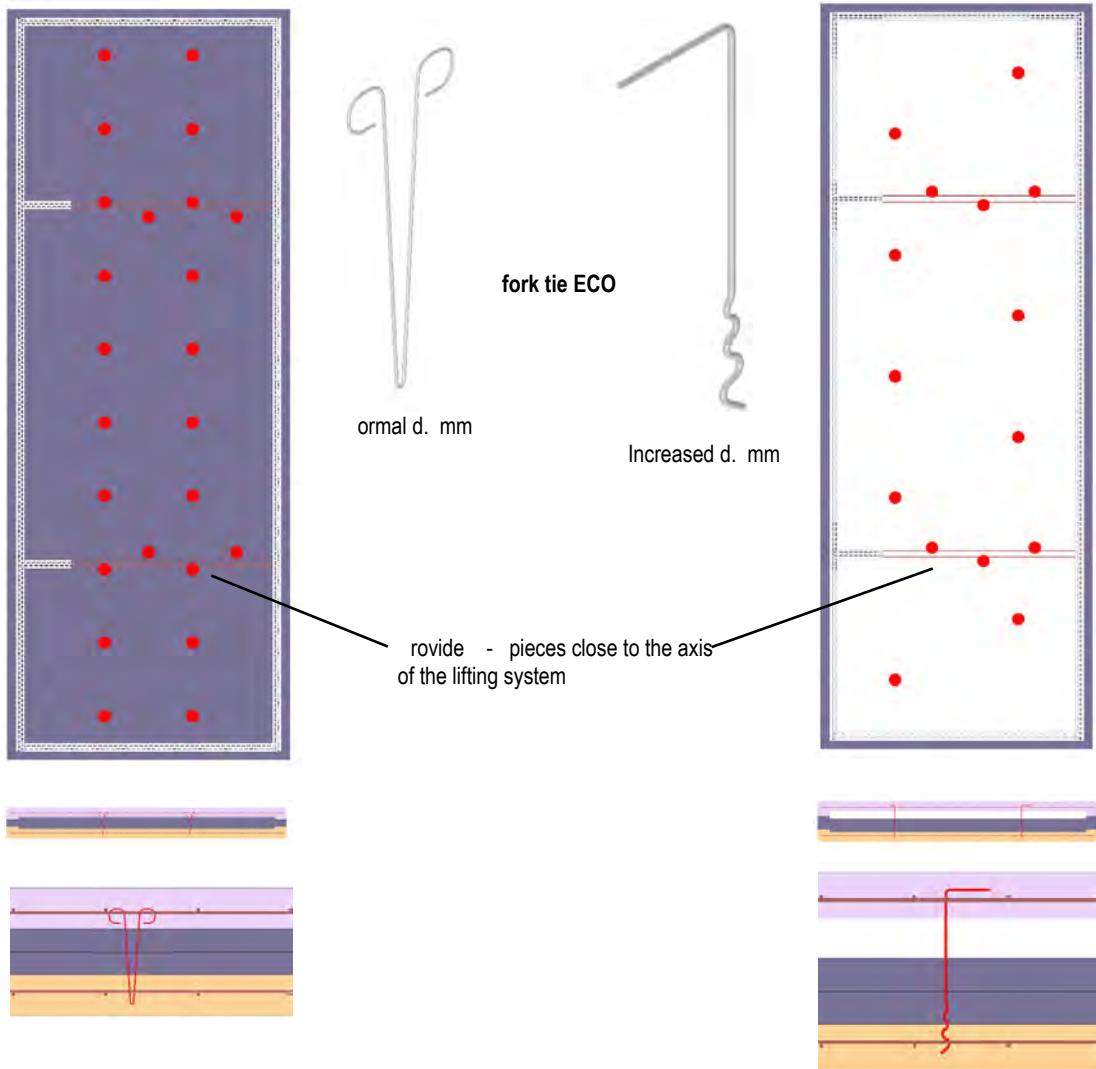
# FORK TIE ECO

## SEWING OF THE LAYERS OF CONCRETE INTERNAL AND EXTERNAL OF THE PANEL

B.S.Italia designed forks of local sewing for the control of deformation due at any decohesions of the layers and swelling for thermal or hygrometric shift .

The fork tie ECO prevent to modify the distance between two layers of concrete far from ECO frame .

available fork tie ECO for panel thickness a 26cm and fork tie ECO increased for panel thickness higher 26cm



Prescriptions for numbers of fork tie ECO normal d.2mm  
depending on the width of the panel :

- $L \leq 1,5$  m: positioned every 60 cm on a longitudinal line
- $1,5 < L \leq 2$  m: positioned every 80 cm on two longitudinal lines
- $2 < L \leq 2,5$  m: positioned every 60 cm on two longitudinal lines
- $2,5 < L \leq 3$  m: positioned every 60 cm on three longitudinal lines

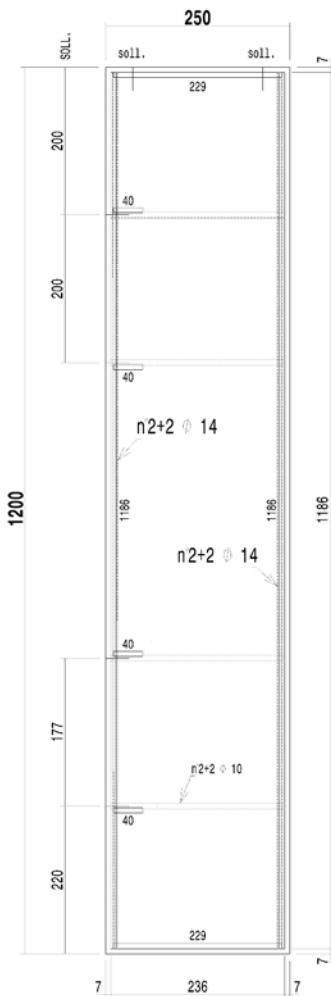
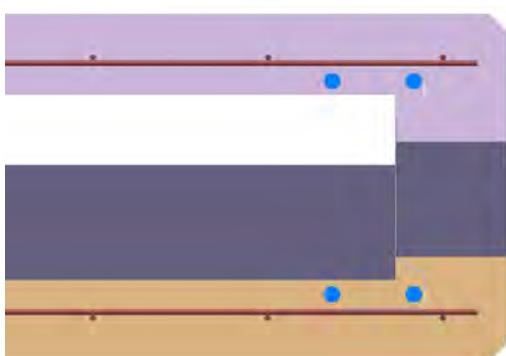
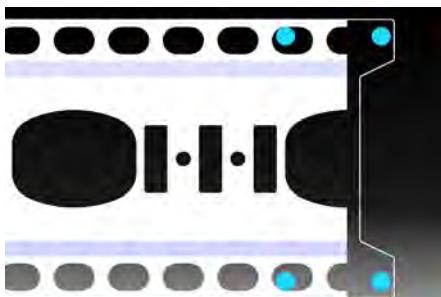
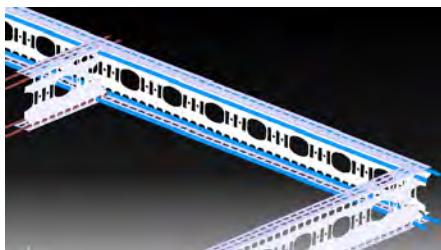
Prescriptions for numbers of fork tie ECO increased d.4mm  
independently of the width of the panel :

- to 50-60cm from the edge of the panel positioned zig-zag every 100cm in the longitudinal way

# ECO + REBAR REINFORCEMENT

## REBAR REINFORCEMENT

The ECO system has been designed to solve any problem concerning metal inserts present in the panel. Indeed in each precast concrete artifact there are lifting insets, support and anchoring; in some cases need also rebar reinforcement for local area. The punctures of the ECO profile allow pairing with all insert described above with simple positioning, their dedicated area depend of the concrete thickness. If the layer thickness of concrete for metal inserts is scarce decrease in local area isolation thickness.



# Eco + REBAR REINFORCEMENT

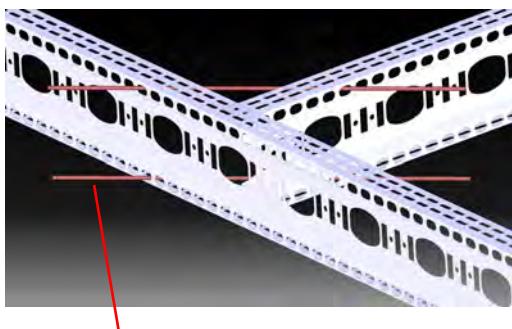
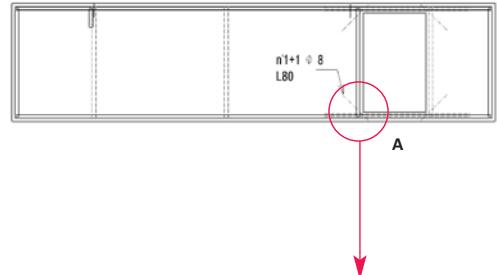
## REBAR REINFORCEMENT

Spreadsheet for rebar reinforcement  
due wind thrust and earthquake  
thrust

 <b>B.S. Italia</b> <small>S.p.A.</small> SERVIZI E SISTEMI TECNOLOGICI PER L'EDILIZIA INDUSTRIALIZZATA							
<b>Cliente:</b> <input type="text"/> Client / client	<b>Commessa:</b> <input type="text"/> prod. order / project						
<b>Pannello tipo:</b> <input type="text"/> panel type / panel ref.	<b>Canterier:</b> <input type="text"/> position / impianto						
<b>Data:</b> <input type="text"/> date / fecha	<b>Note:</b> <input type="text"/> notes / nota						
<b>VERIFICA PANNELLO ECO / Eco panel check / verificación panel Eco</b>							
<b>Sp = Spessore pannello al netto di falsi giunti trasversali</b> panel thickness net of transverse false joints / espesor panel al neto de postigos transversales <b>I = Larghezza pannello (deprata dei fori finestra)</b> panel width (without window holes) / anchura panel (deprado de agujeros ventanas) <b>L = Larghezza di calcolo equivalente (ai fini spinta vento)</b> equivalent calculation width (for wind pressure purposes) / anchura de cálculo equivalente (para presión del viento) <b>b = Luce teorica di calcolo</b> supposed calculation light / luz teórica de cálculo							
<b>E = Spinta sismica</b> seismic force / fuerza sísmica <b>V = Spinta</b> wind pressure / presión del viento	<input checked="" type="radio"/> Si/Yes/Sí <input type="radio"/> No/No/No daN/m <sup>2</sup> <b>70</b> daN/m <sup>2</sup> daN/m <sup>2</sup> <b>70</b> daN/m <sup>2</sup> daN/m <sup>2</sup> <b>42</b> daN/m <sup>2</sup>						
<b>Classe del calcestruzzo</b> strength class of concrete / clase del hormigón <b>Tipo di profilo Eco presente nel pannello</b> kind of Eco profile inside the panel / tipo de perfil Eco presente nel panel <b>Profili Eco presenti nella sezione</b> Eco profiles inside the section / perfiles Eco presentes en la sección <b>Velocità (h : Sp)</b> speediness / velocidad							
<b>C25/30</b> <b>EC0210</b>							
<b>Per facilitare l'immissione dei dati, vedere le allegate ipotesi esemplificative</b> in order to simplify the data input, check the attached illustrative hypotheses / para facilitar la introducción de datos, ver las hipótesis ejemplificadoras							
<b>Pannelli orizzontali</b> horizontal panels/ paneles horizontales	<b>Pannelli verticali</b> vertical panels/ paneles verticales						
<b>CROSTA INTERNA / inner layer / capa interna</b>							
<b>Rete e.s. Ø (mm)</b> wire mesh / red e.s.	<b>maglia longitudinale</b> longitudinal mesh / malla longitudinal						
5	15 cm						
<b>Momento flettente sollecitante sui travetti longitudinali</b> bending moment stressing on longitudinal rafters / momento fletante solicitante sobre los							
<b>Ferro integrativo longitudinale</b> longitudinal additional rebars / fierro complementario longitudinal	<table border="1" style="width: 100px; margin-left: auto; margin-right: auto;"> <tr> <td>Ø (mm)</td> <td>n°</td> </tr> <tr> <td>8</td> <td>0</td> </tr> <tr> <td>14</td> <td>2</td> </tr> </table>	Ø (mm)	n°	8	0	14	2
Ø (mm)	n°						
8	0						
14	2						
<b>M<sub>fl</sub> =</b> 326.813 daN cm							
<b>Momento flettente resistente sui travetti longitudinali</b> bending moment resisted on longitudinal rafters / momento fletante resistente sobre los							
<b>M<sub>fl</sub> =</b> 645.678 daN cm							
<b>CROSTA ESTERNA / outer layer / capa exterior</b>							
<b>Rete e.s. Ø (mm)</b> wire mesh / red e.s.	<b>maglia longitudinale</b> longitudinal mesh / malla longitudinal						
5	15 cm						
<b>Momento flettente sollecitante sui travetti longitudinali</b> bending moment stressing on longitudinal rafters / momento fletante solicitante sobre los							
<b>Ferro integrativo longitudinale</b> longitudinal additional rebars / fierro complementario longitudinal	<table border="1" style="width: 100px; margin-left: auto; margin-right: auto;"> <tr> <td>Ø (mm)</td> <td>n°</td> </tr> <tr> <td>8</td> <td>0</td> </tr> <tr> <td>12</td> <td>0</td> </tr> </table>	Ø (mm)	n°	8	0	12	0
Ø (mm)	n°						
8	0						
12	0						
<b>M<sub>fl</sub> =</b> 196.088 daN cm							
<b>Momento flettente resistente sui travetti longitudinali</b> bending moment resisted on longitudinal rafters / momento fletante resistente sobre los							
<b>M<sub>fl</sub> =</b> 373.401 daN cm							
<b>Il presente foglio di calcolo è stato costruito in conformità alle risultanze di valutazioni numeriche effettuate, mediante analisi a elementi finiti tridimensionali, a cura del Centro Europeo di Formazione e Ricerca in Ingegneria sismica di Pavia "EUCENTRE", e delle prove sperimentali di collaudo, condotte al fine di certificare la portata del sistema.</b> <b>N.B.: è onore e responsabilità dell'utilizzatore del presente Software, verificare e assicurarsi che i suddetti risultati siano adeguati alla propria specifica applicazione!</b> It is duty and responsibility of this software's user, to check and make sure that these results are appropriate to its own specific application! <b>es carga y responsabilidad del utilizador del presente software, verificar y asegurarse que estos resultados sean apropiados a su propia aplicación!</b>							
 <b>B.S. ITALIA s.p.a. - gruppo Sty-Comp</b> Sede legale: via Sterzzone n.16 - Tel. +39 035 671746 Fax +39 035 672265 Sede operativa: via G. Falcone n.9 - Tel. +39 035 670569 Fax +39 035 671954 cap. 24050 Zanica (Bg) - ITALIA - Internet: <a href="http://www.sty-comp.com">www.sty-comp.com</a> E-mail: <a href="mailto:info@igq@sty-comp.it">info@igq@sty-comp.it</a> R.E.A. di Bergamo n. 253777 - Cod. Fisc. P. IVA e Reg. Imprese di Bergamo n. 01994480166 Società soggetta a direzione e coordinamento di Sty-Comp s.p.a. R.I.n. 00211080163							

# ECO + REBAR REINFORCEMENT

## REINFORCEMENT FOR DOORS AND WINDOWS



n° 1 + 1 rebar Ø 8 L ≥ 80 cm, positioned a 45° at every corner of the opening .

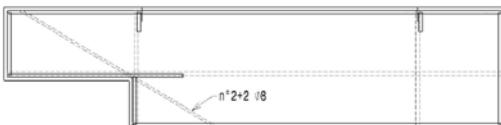
### System reinforcement close to windows and doors for panel with ECO profile

the profiles that compose the ECO frame of doors and windows of the panels has to have 7cm distance from them . For example ,if the window light is 170 cm x 120 cm, the profiles ,assembled together , has form an inner rectangle of 184 x 134 cm.This allow to have a concrete base to apply window frame . It is better “tie” just with simple tie two traverse of the window or door with longitudinal eco frame to avoid problem to miss rigidity .

One or two traverse can be work also as traverse intermediate of the main reinforcement of the panel , so perform at the same time two different functions .

**Part. A:** Junction of the ECO profile reinforcement of the window occur in the corner with simle tie . the diagonals rebar insert in the hole of the ECO profile are simple lean on .

## REINFORCEMENT FOR PANELS WHIT RECES



### Reinforcement system in corrispondence of recess for ECO thermal panel

reinforcement of recess is optained with normal panel reinforcement as described ,using attention lengthening the longitudinal ECO profile at least 50-60cm. and put in n°2+2 bars d.8 mm all length . This allow to stiffen enough internal corner .

The binding between elements that make the recess corner is made by wire .

# ECO + ANCHORING INSERTS

## REGOLABILI SYSTEM

### Pairing with anchoring inserts REGOLABILI TSe, TSu

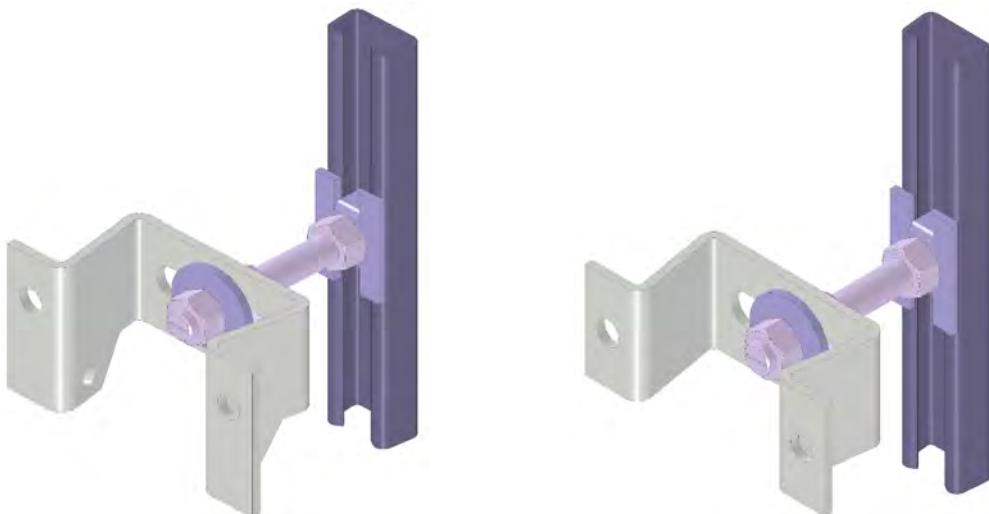
Positioning of ECO profile for the ECO panel matched with hidden tube system TSe and TSu



N.B.:TSe has been studied for ECO profile 130 but with special long polystyrene form can be used

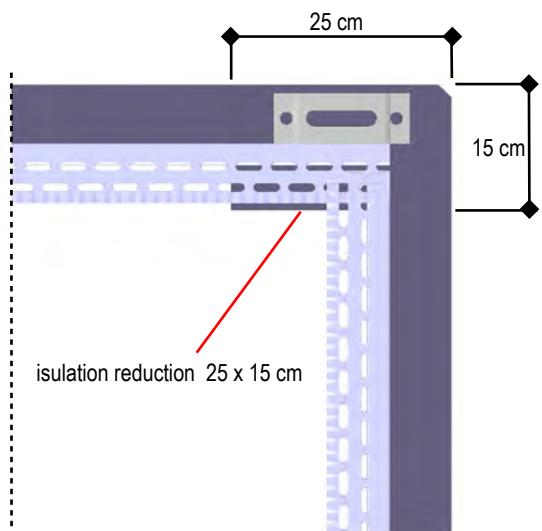
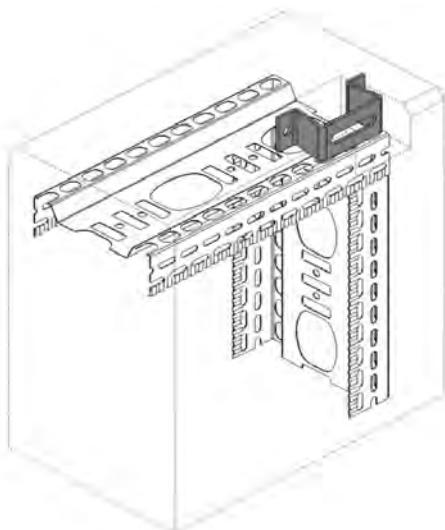
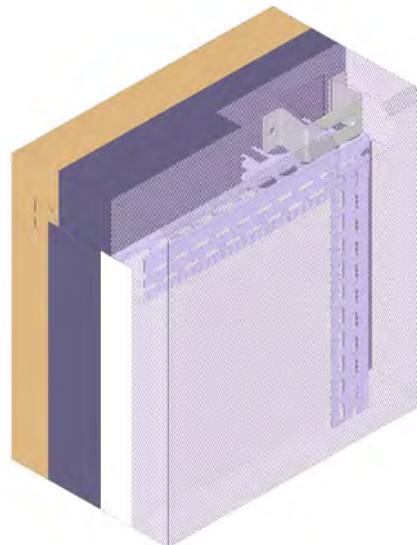
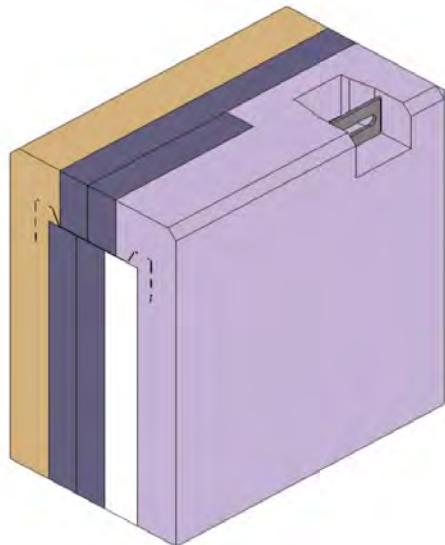
with ECO profile of bigger dimensions (ECO 180-210-230).

TSu is made for different ECO profili of ECO 130 but can be used also for this kind



# Eco + ANCHORING SYSTEM

Anchorin REGOLABILI TSu (valid also with TSe)

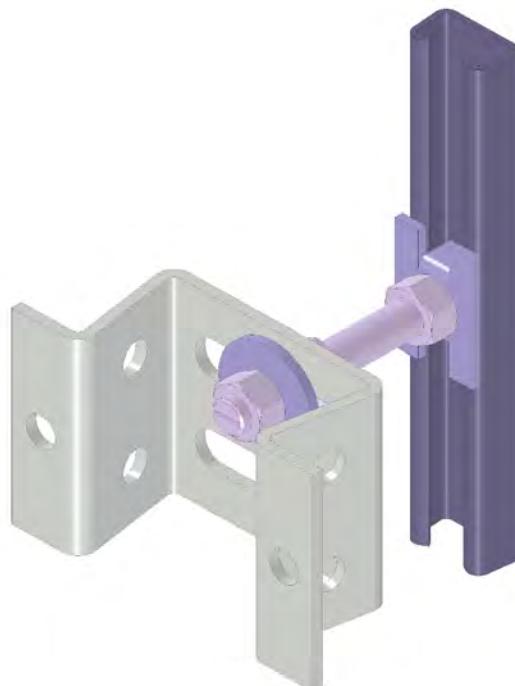
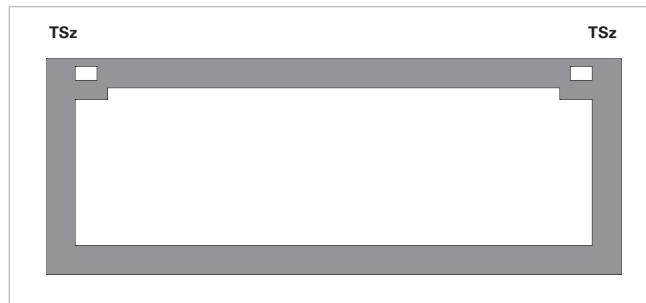


N.B.: for any different stirrup refer at the specific manual of the single metal inserts .

## REGOLABILI SYSTEM

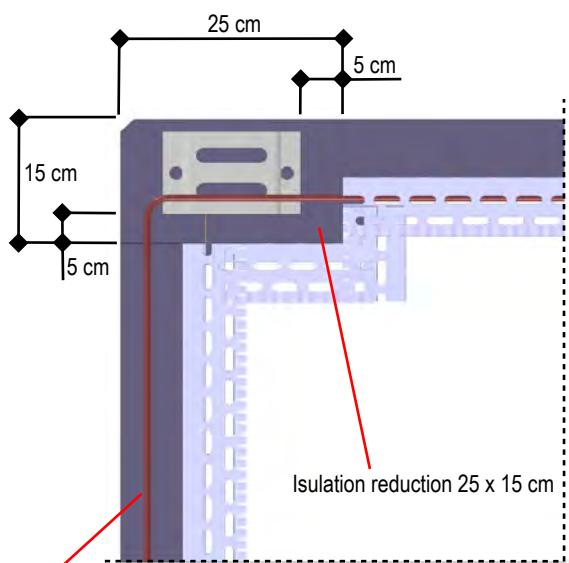
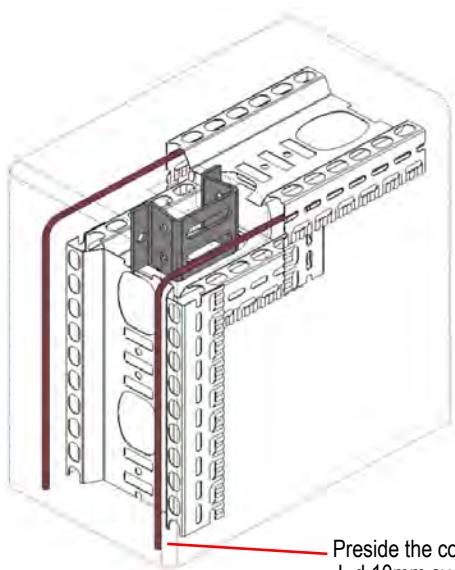
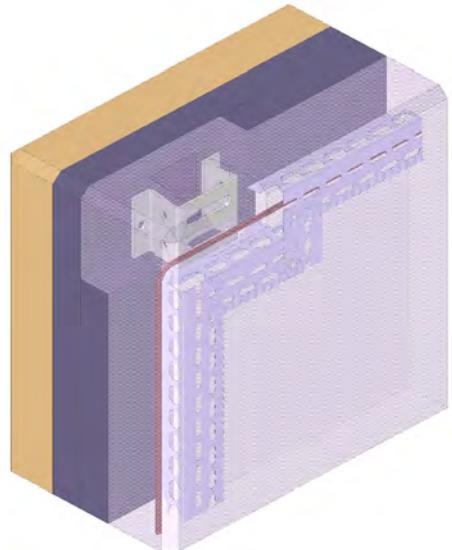
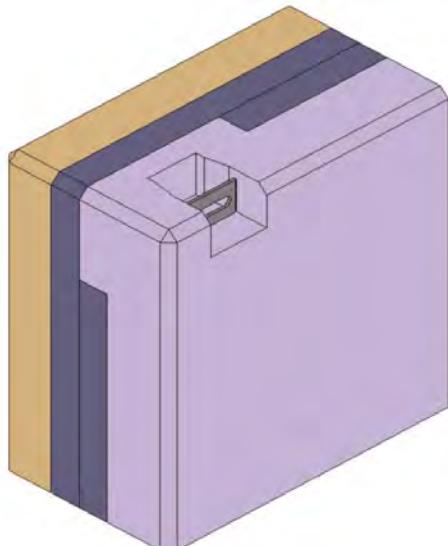
### Pairing anchoring insert REGOLABILI TSz

With TSz the positioning does not change like TSe e il TSu, need to preside area with 5cm distance from the insert .



# Eco + INSERTS ANCHORING

## Anchoring REGOLABILI TSz



N.B.: for any different stirrup refer at the specific manual of the single metal inserts .

# ECO + INSERTS OF SUPPORT

## ERCOLE SYSTEM

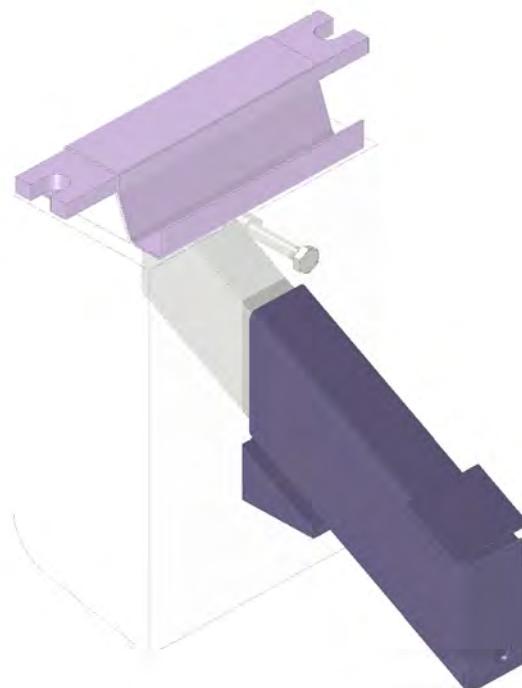
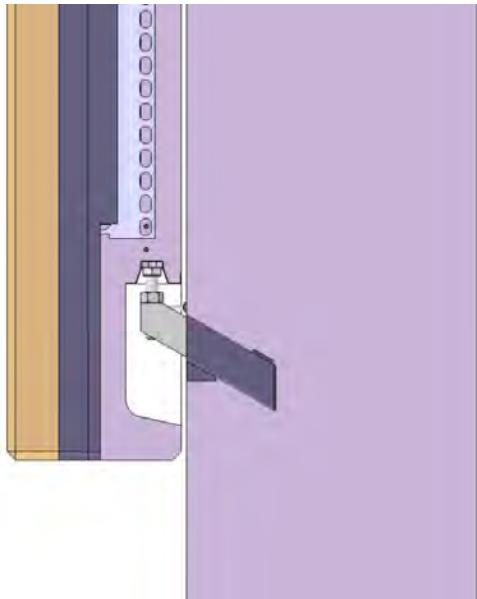
### Pairing with inserts of support SCREW BOX S.V.

Positioning of ECO profile for ECO thermal adjacent at supports inserts .

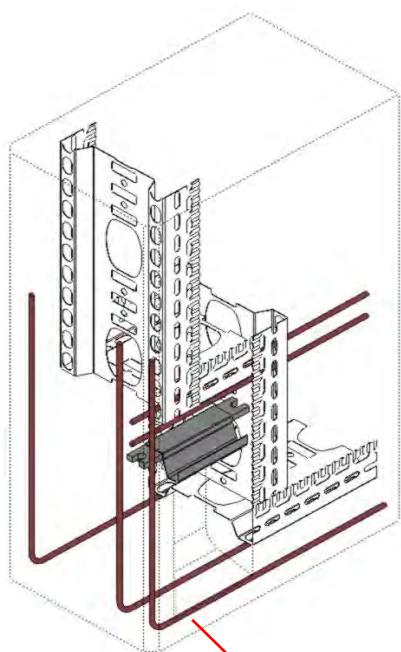
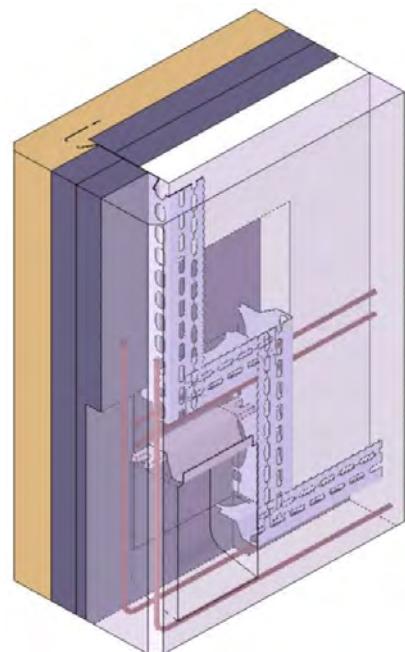
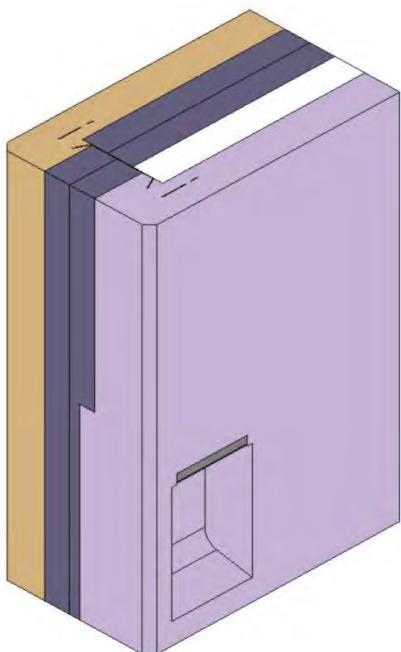
Example : Screw box S.V.

The Eco frame has to preside the area of the insert of support , as show in the drawing ,taking a distance of 5 cm from the insert (or from recess for support in concrete ).

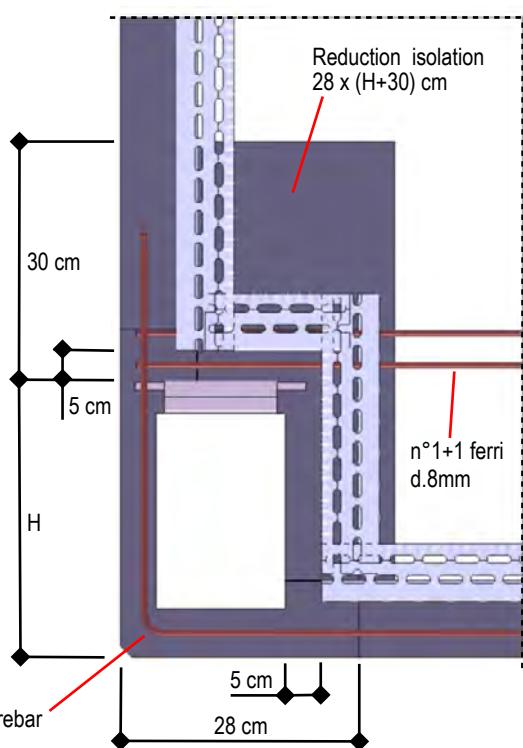
Length of pieces of the profile change in function of the dimensions of the support used .



# ECO + INSERTS OF SUPPORT



Preside the corner with rebar  
L d.10mm sv.100cm



N.B.: for any different stirrup refer at the specific manual of the single metal inserts .

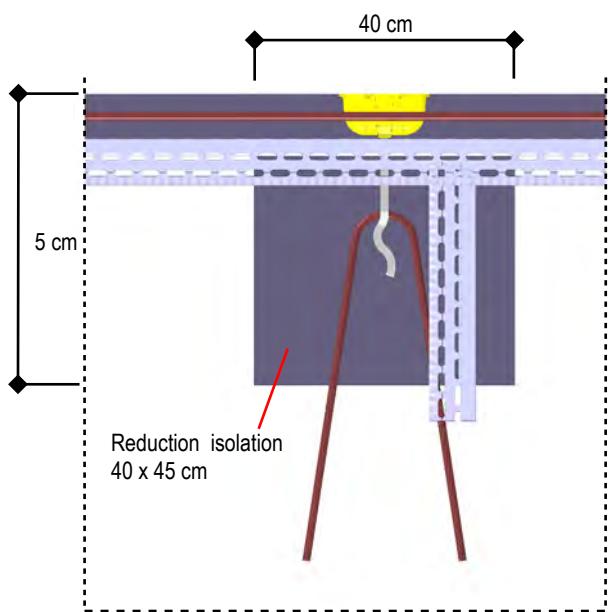
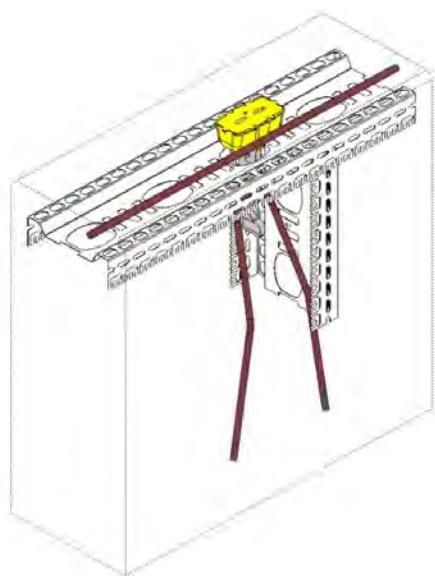
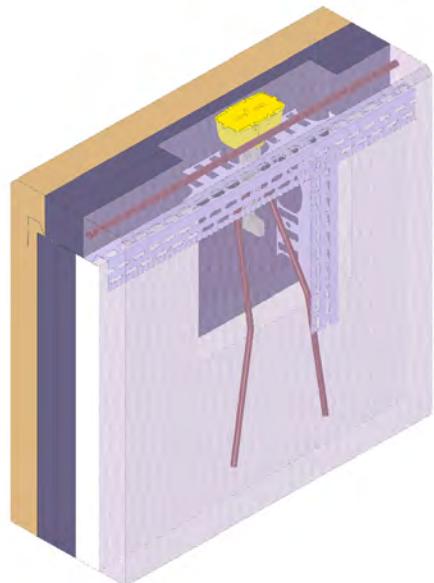
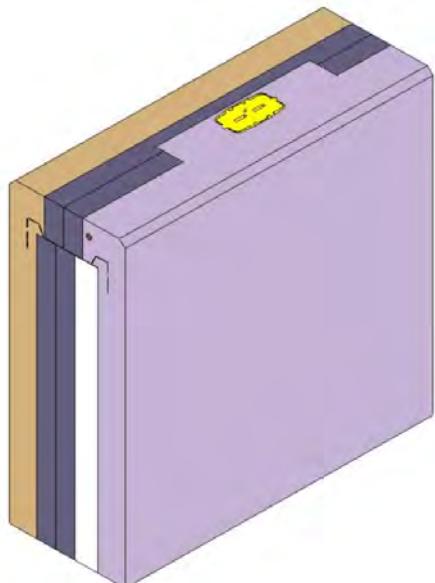
# ECO + INSERTS OF LIFTING

## TORRE SYSTEM AND SAFELIFT SYSTEM

The slot ECO system has been designed to perfect placing of the lifting system so achieve **perfect placing of the inserts in the middle of the thickness of the panel**.

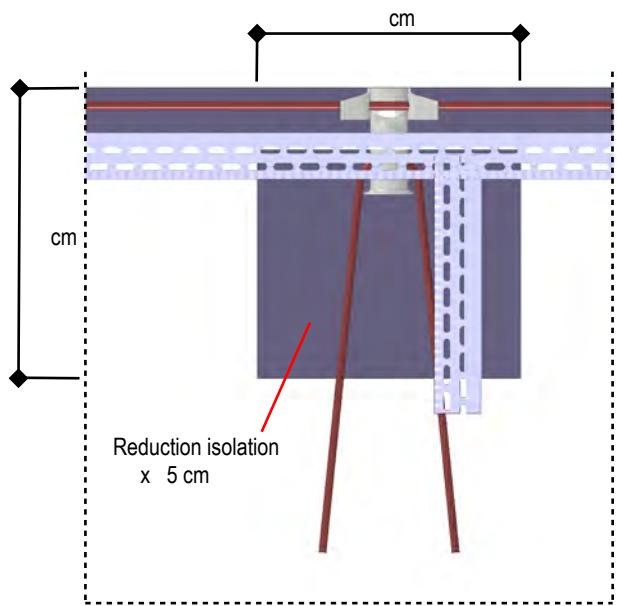
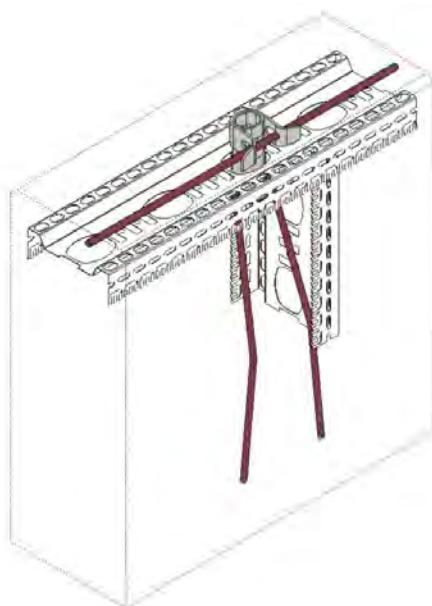
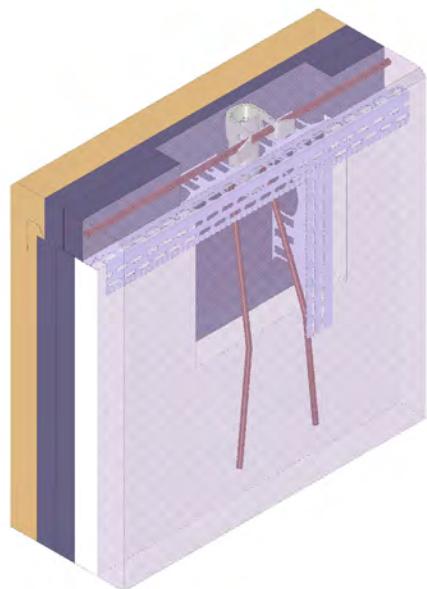
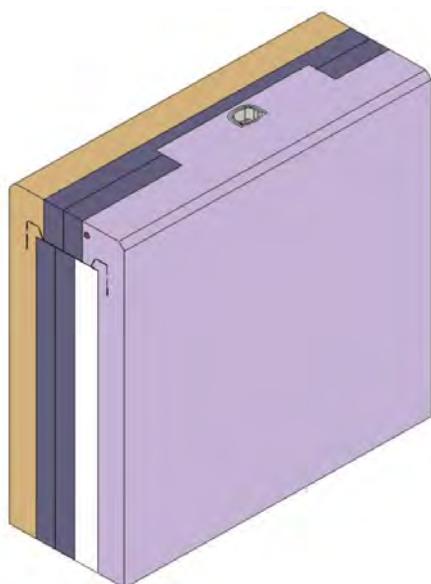
The central slot perform a perfect guide for BS lifting system "Torre" and "Safelift" takes them raised and perpendicular at the plan.

moreover , special shape of the ECO profile allow at the box of "Torre" and at tie of "Safelift " perfect placing in the space between ECO profile and formwork side .



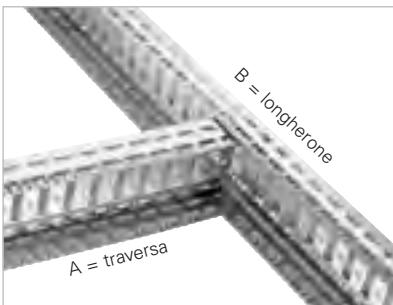
N.B.: for rebar of lifting system refer at user manual .

# ECO + INSERTS OF LFTING



N.B.: for rebar of lifting system refer at user manual .

# PROCESS FOR CUTTING ECO PROFILE



## Design reinforcement ECO THERMAL

Design for ECO reinforcement need evaluate :

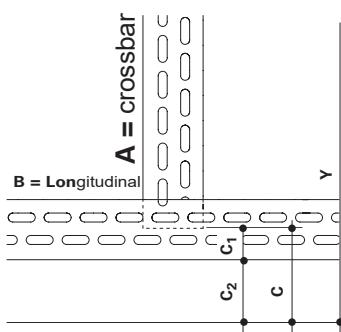
- shape of formwork and edge side ;
- thickness of the panel and layers;
- weight of the panel each mq;
- lifting system used ;
- supporting system ;
- anchoring system .

basic on design of ECO system is the distance between frame to the framework edge side . For ECO thermal panel is 7 cm (without any needs ).

So the ECO profile result always shorter than the normal dimension of the real panel , as mentioned above

in cm

Measures of junction  
longitudinal (B) e crossbar (A)



### measures of junction

$$c_1 = 3,5$$

$$c_2 = 7$$

$$c = 10,5$$

N.B.the distance  $c_2$  can be change due dimension of the insert lifting used

Y = width panel

c = distance between end of crossbar ECO (A) and edge of the panel

$c_1$ = distance between end of crossbar ECO (A) end external edge of longitudinal ECO (B)

$c_2$ = distance between external edge of longitudinal ECO (B) and external edge of the panel

A = width panel - (2 x c)

B = length panel - (2 x c )

# Process for cutting ECO profile

## GENERAL SIZING FOR CUTTING

### Determination of the length of the ECO panel profiles

without insert (ex,case tube T.S.z. or similar), windows ,doors and recess with rectangular shape, the result is a metal frame composed of :

- 2 longitudinal with length equal to :  $X - dx$
- 2 crossbar perimeter lenght equal to :  $Y - dy$
- 2 o 4 crossbar (composed of pieces length equal to 40/60 cm and rebar d.10mm) in the same place of the lifting system .

$X$  = length panel

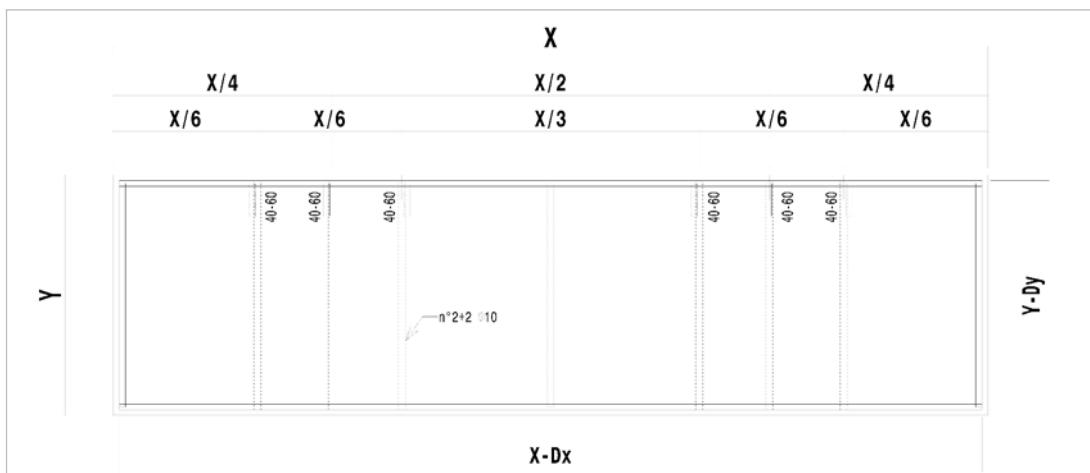
$Y$  = width panel

$dx$  = 14 cm

$dy$  = 21 cm

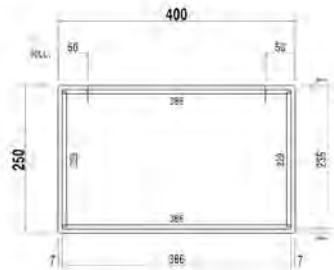
the number of pieces (2 o 4) changed in reason of the measure of the panel and the number of the lifting system :

1.  $X > 10 \text{ m}$  = minimum **4 pieces** placed at  $X/6$
2.  $4 \text{ m} < X < 10 \text{ m}$  = **2 pieces** placed at  $X/4$
3.  $X < 4 \text{ m}$  = used only the **4 perimeter profiles**
4. when the area comprensive between two central traverse is  $> 13,5 \text{ mq}$  need add one traverse ECO in the middle of the panel

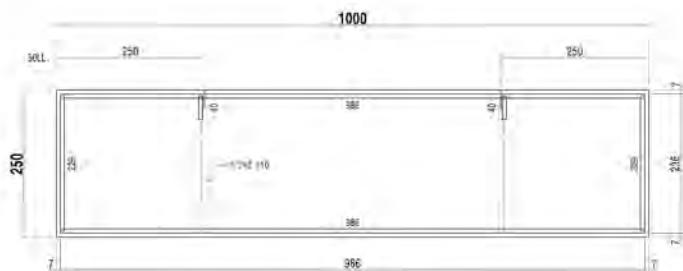


# EXAMPLES REINFORCEMENT ECO THERMAL PANEL

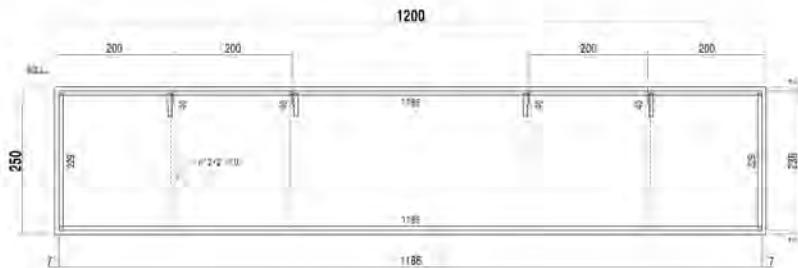
panels with leng  $\leq$  4mt



panels with length  $> 4 \leq 10$



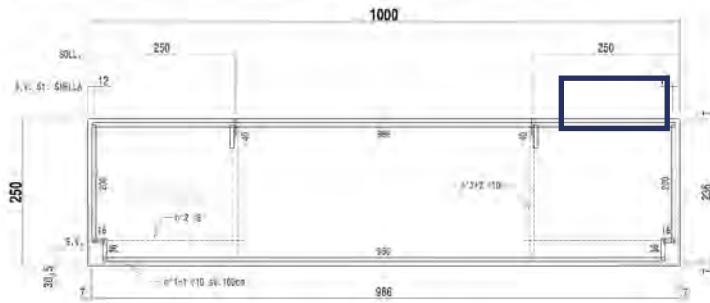
panels with length > 10 mt



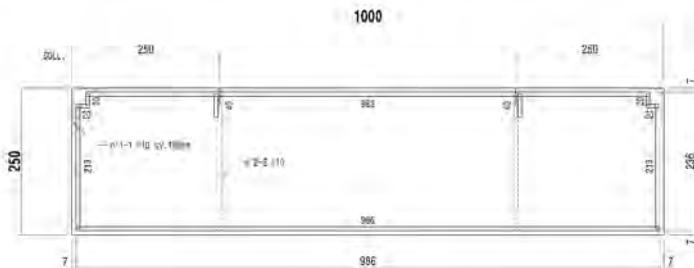
N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust.  
for this reinforcement refer spreadsheet of this manual pag. 11 .

## **EXAMPLES REINFORCEMENT ECO THERMAL PANEL**

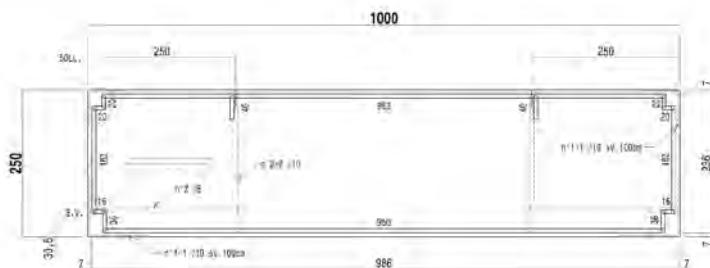
### **Horizontal panels with screw box fo support**



### **Horizontal panels with inserts windbracing**



#### **Horizontal panels with screw box for support and windbracing insets**

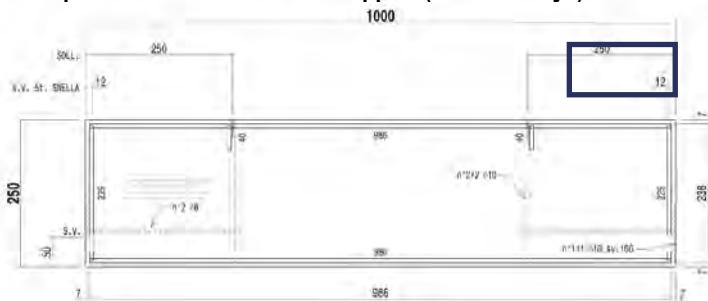


N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL

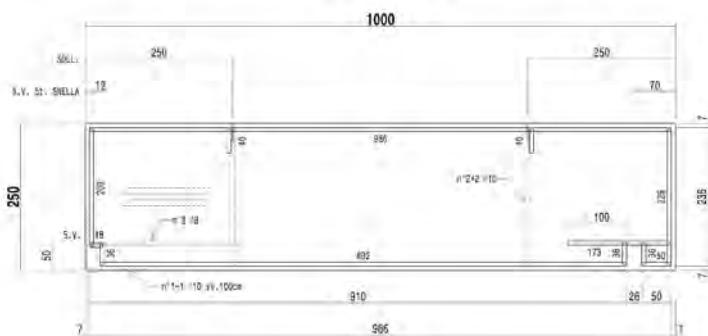
cm

## Horizontal panels with screw box for support ( alternatively )



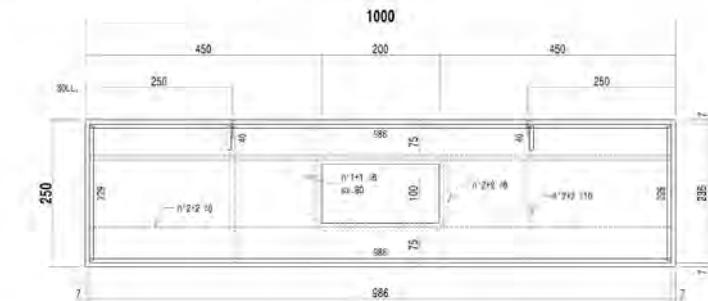
cm

## Horizontal panels with supports in asymmetrical position



cm

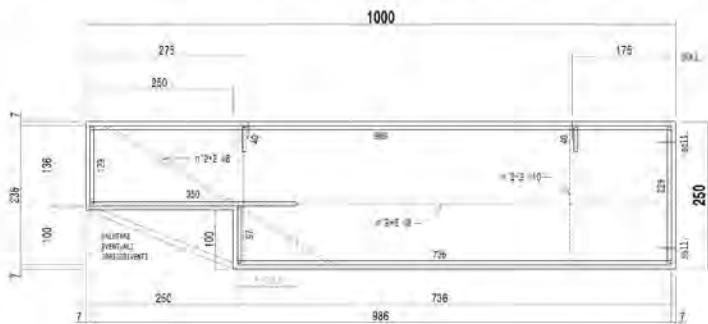
## Horizontal panels with central window



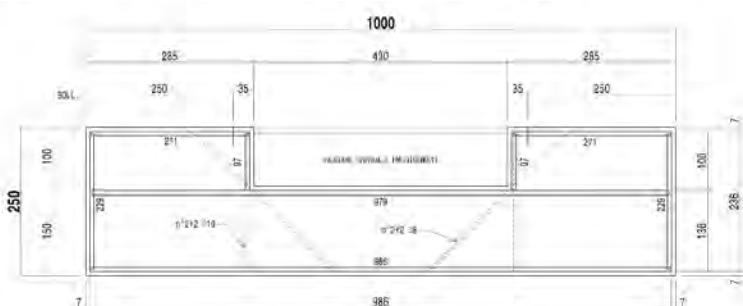
N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL

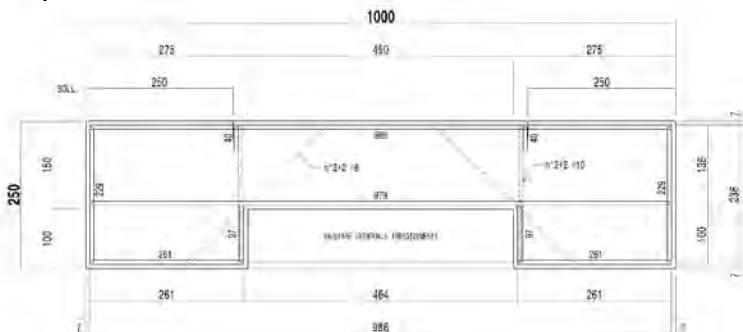
Horizontal panels with recess in the lower corner



horizontal panels with recess in the upper side



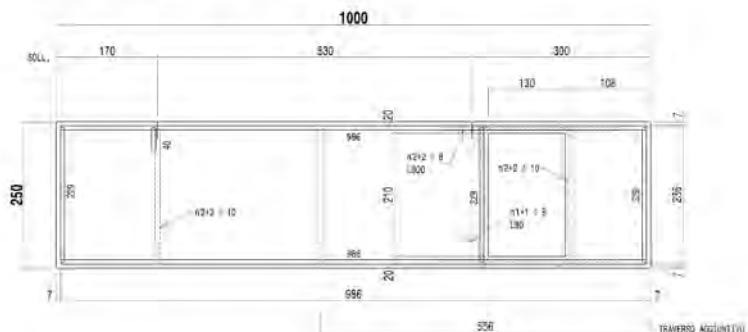
Horizontal panels with recess in the lower side



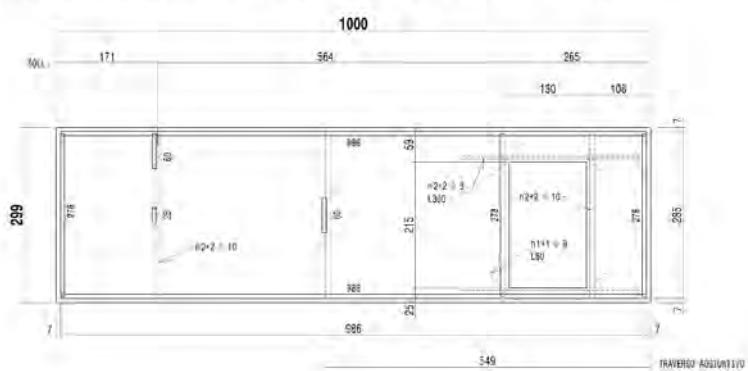
N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL

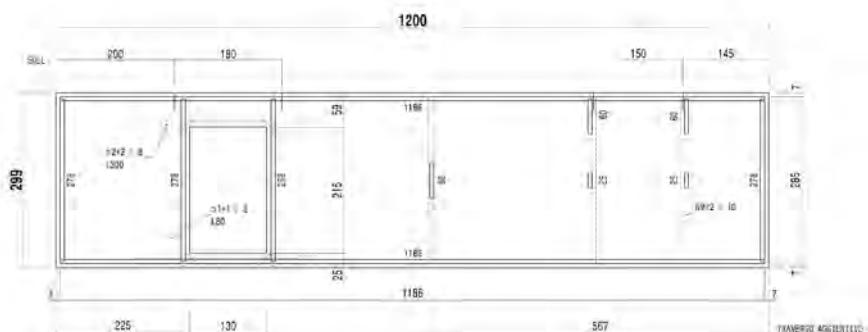
## Horizontal panels with door



## Horizontal panels with door width > 2,5 mt

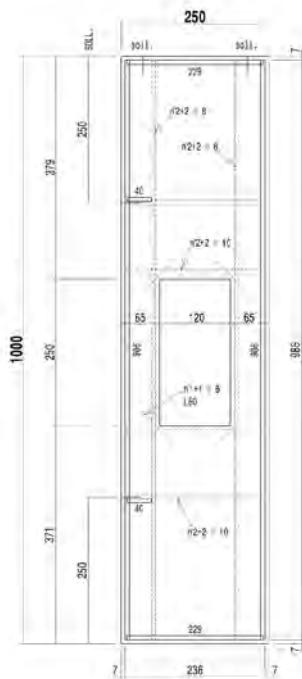


## Horizontal panels with door length > 10 mt width > 2,5 mt

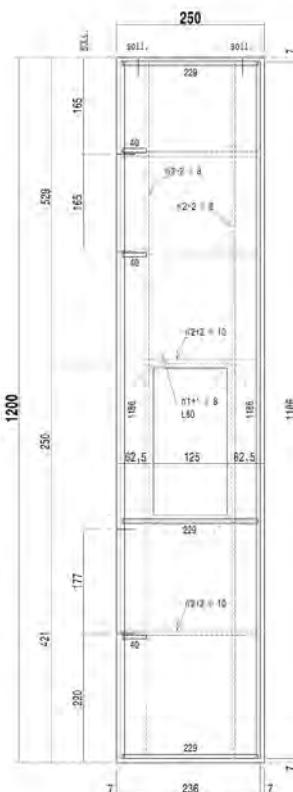


N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL



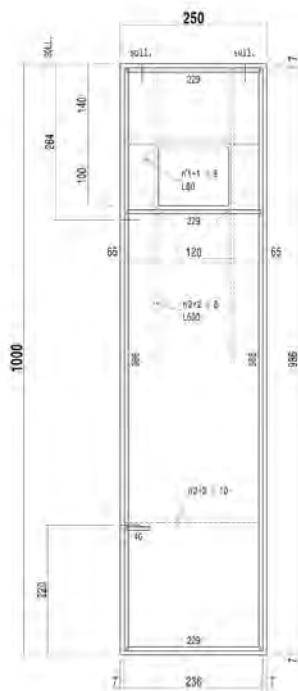
Vertical panels ≤ 10mt with door



Vertical panels > 10mt with window

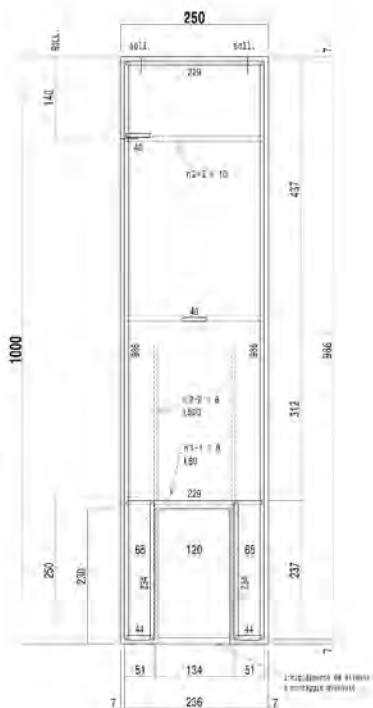
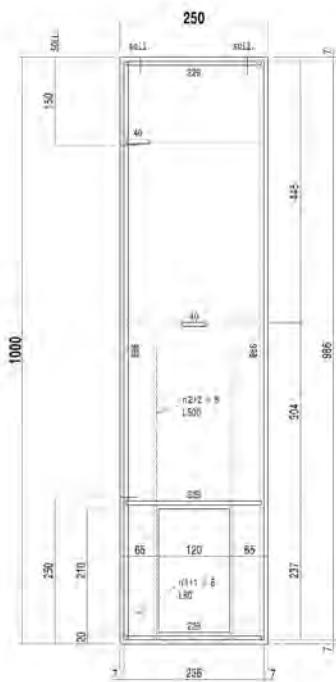
N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL



N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL

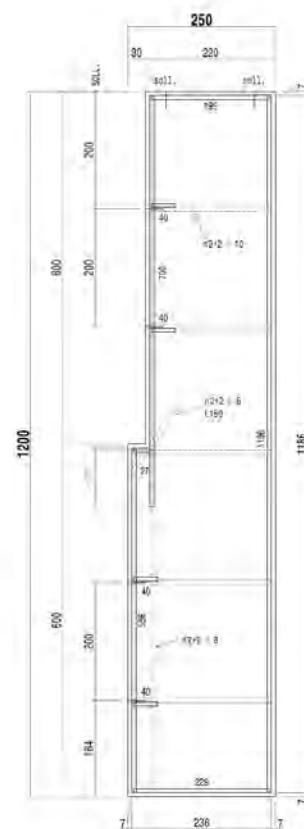


N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# EXAMPLES REINFORCEMENT ECO THERMAL PANEL



**Vertical panels with recess ( 1 )**



**Vertical panels with recess ( 2 )**

N.B.: the examples above not consider ribar reinforcement for wind thrust and seismic thrust .  
for this reinforcement refer spreadsheet of this manual pag. 11 .

# WARNINGS

## CHANGES

change are not allowed at the ECO components , that can cause alteration at the technical material features and produce dangerous works conditions .

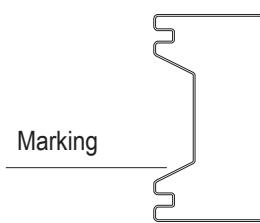
B.S.Italia assumes no responsibility for damages of any kind in the event of changes made to its products or to individual components.

## MODIFICHE PROGETTUALI

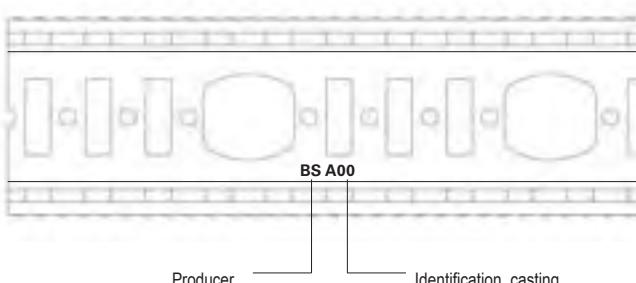
B.S.Italia reserves the right to make design changes regarding components and / or accessories and / or ranges at any time, without prior notice.

For each project, in accordance with the legal obligations to which we refer fully, a designer, a construction manager, a safety manager must be appointed and a detailed production and assembly plan must be drawn up and followed. This manual must always be available in the place of use of the system itself and delivered to the relevant managers: in production, storage and assembly site.

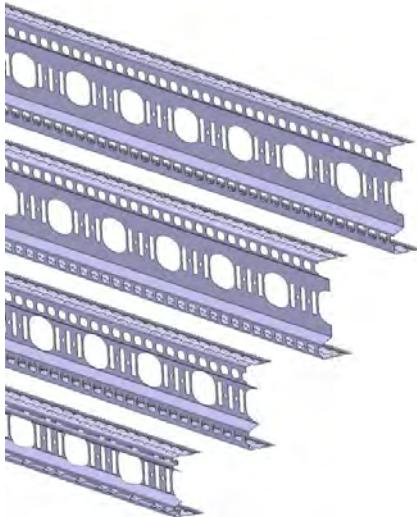
# MARKING



for production reasons, it can be found  
in other location )



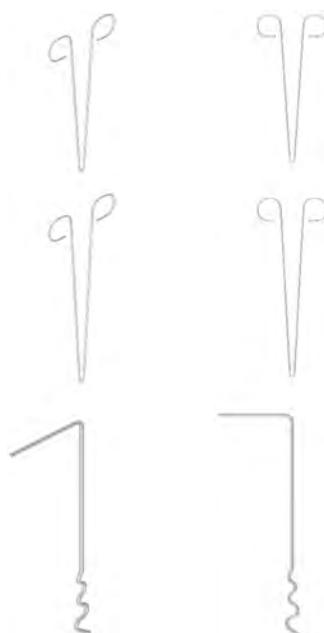
# CODES COMPONENTS



## Eco Profile cat in to bars 12,5 m

Pre-painted galvanized	Code	Box. n° bars / m tot
Profilo ECO 230	9607-10.FV	28 / 350 m
Profilo C 1	61.F	4 / 0 m
Profilo C 18	51.F	42 / 525 m
Profilo C 13	11.F	40 / 5 m

## Accessories



Fork	Code	Box . n° pieces
Fork stainless steel L165mm	FORK 2	5000
Fork stainless steel 20 mm	F K S	
Fork stainless steel 250mm	F K4-250	

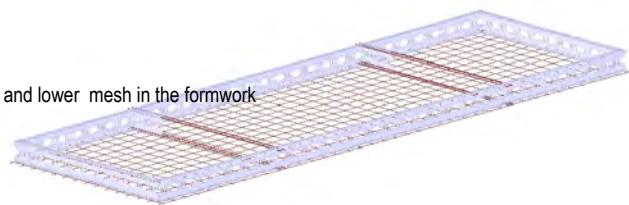


innovazione basata sull'esperienza  
Innovation based on experience

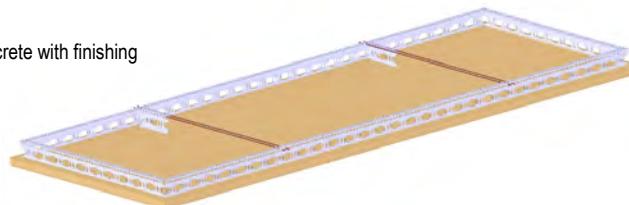
24050 ZANICA (BG) Italia • Via Stezzano, 16 • tel. +39 035 671 746 • fax +39 035 672 265  
[www.bsitaliagroup.com](http://www.bsitaliagroup.com) • [infobsitalia@styl-comp.it](mailto:infobsitalia@styl-comp.it)

## SEQUENCE OF POUR CONCRETE

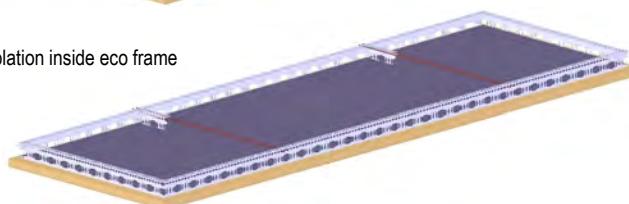
1. Place reinforcement and lower mesh in the formwork



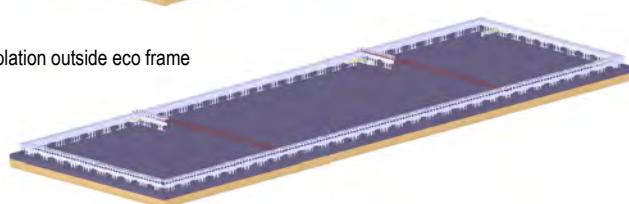
2. Pour first layer of concrete with finishing



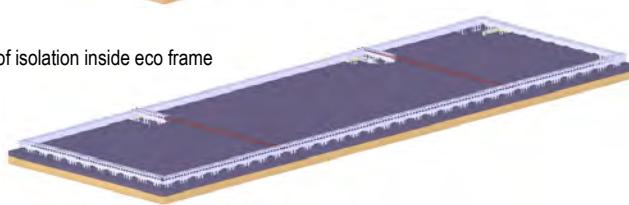
3. Place first layer of isolation inside eco frame



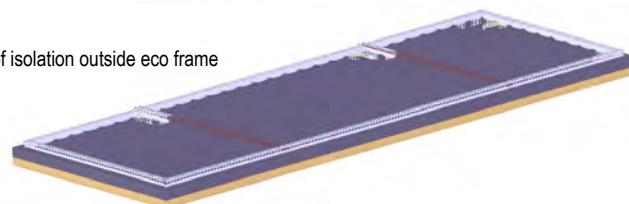
4. Place first layer of isolation outside eco frame



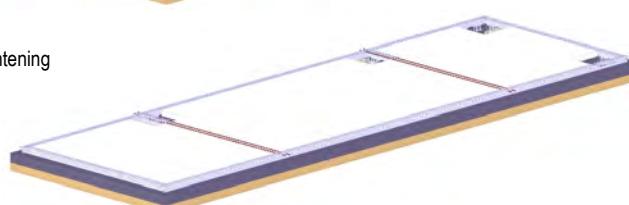
5. Place second layer of isolation inside eco frame and at the metal insert



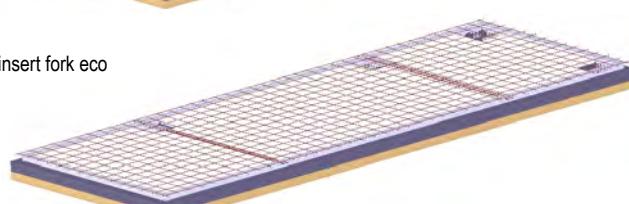
6. Place second layer of isolation outside eco frame



7. Place isolation of lightening



8. Fix upper mesh and insert fork eco

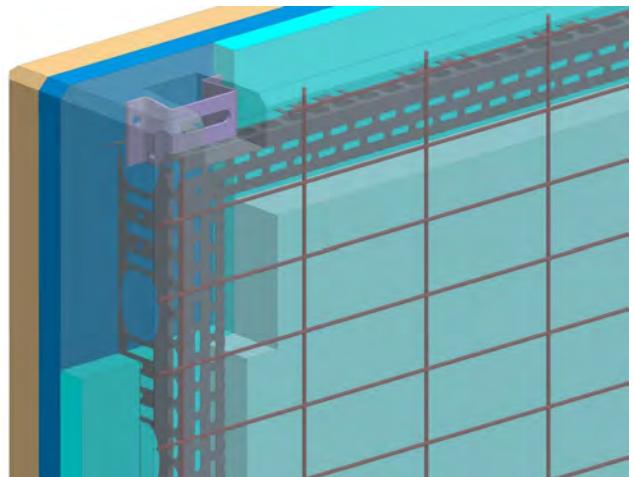


9. Complete pour concrete

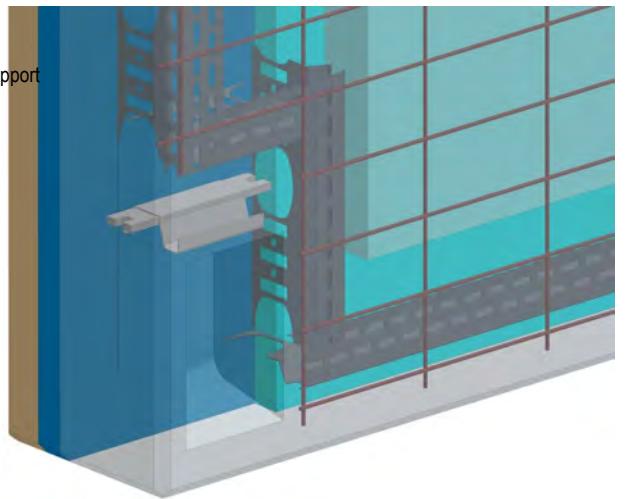


## INSERTS

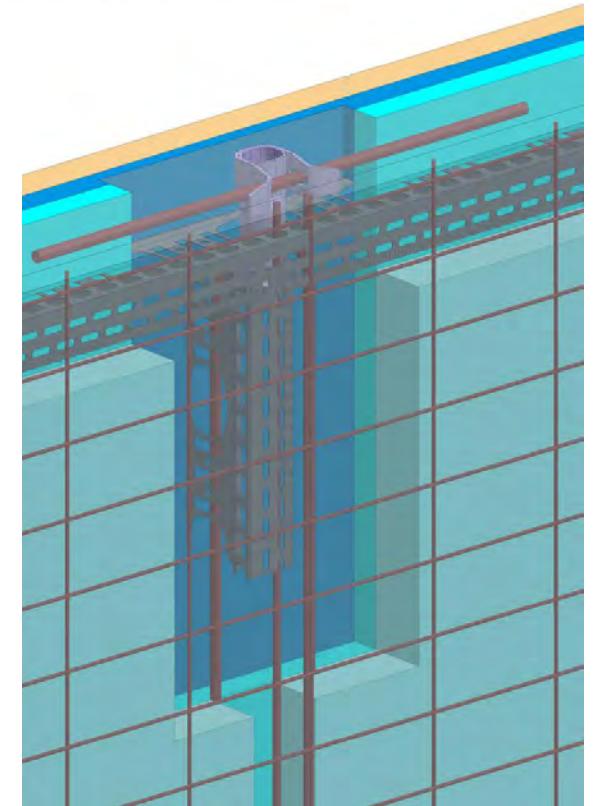
1. Inserts bracing



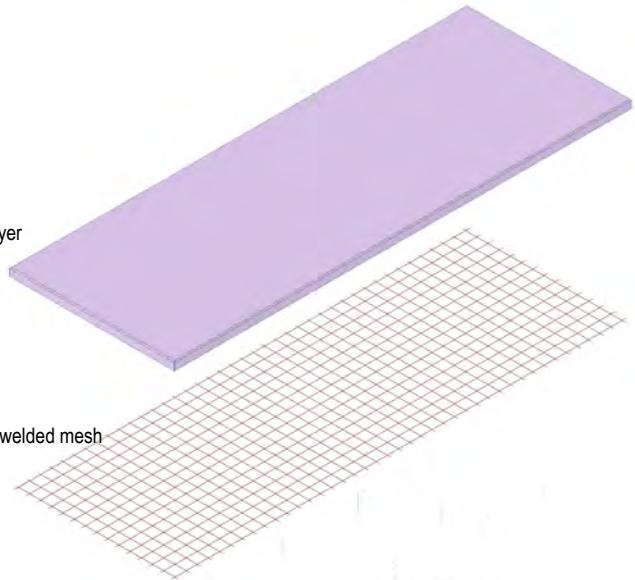
2. Inserts support



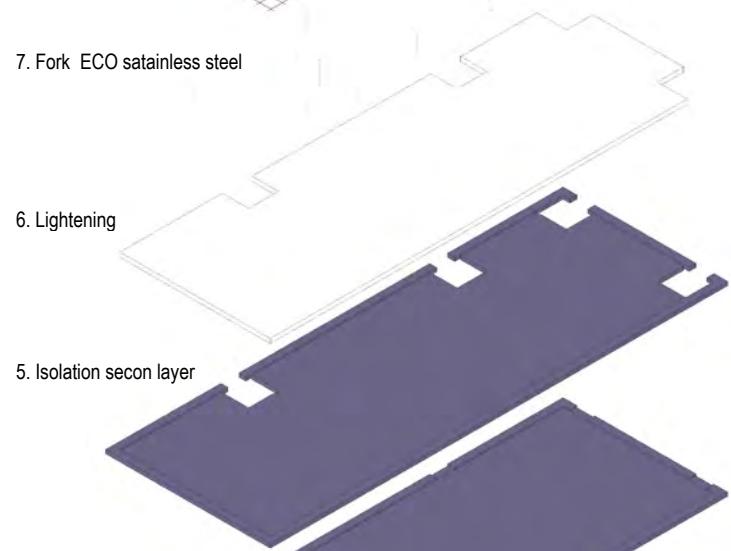
3. Lifting Inserts



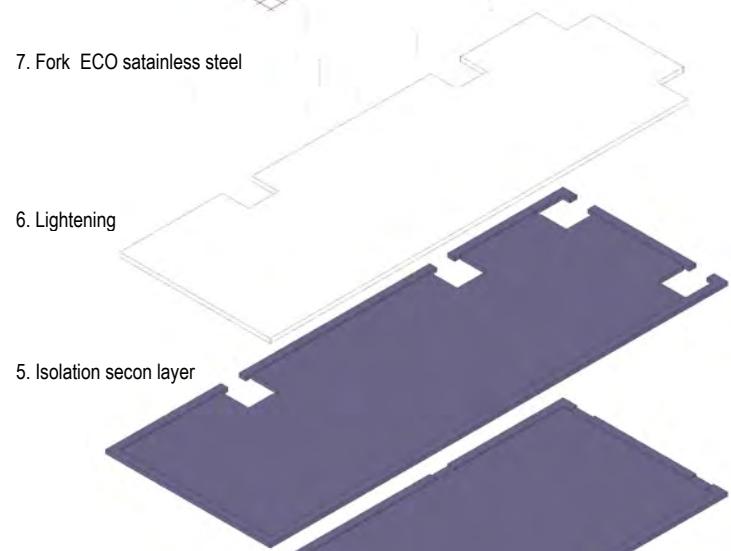
9. Inner layer



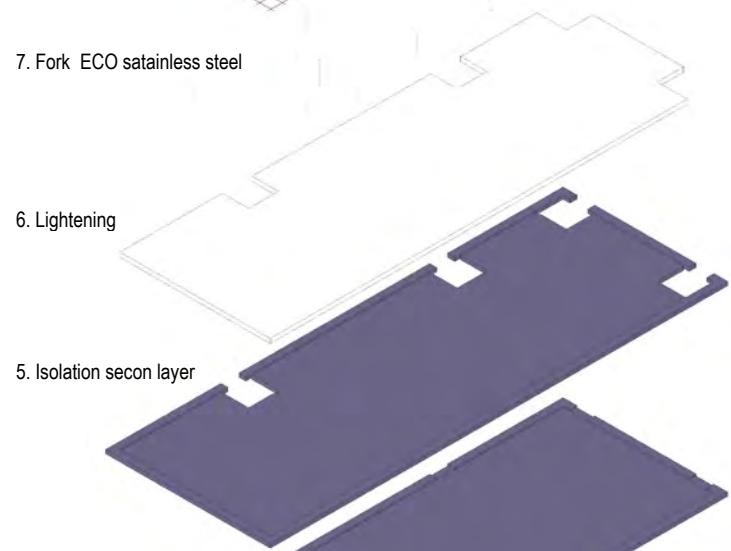
8. Electro-welded mesh



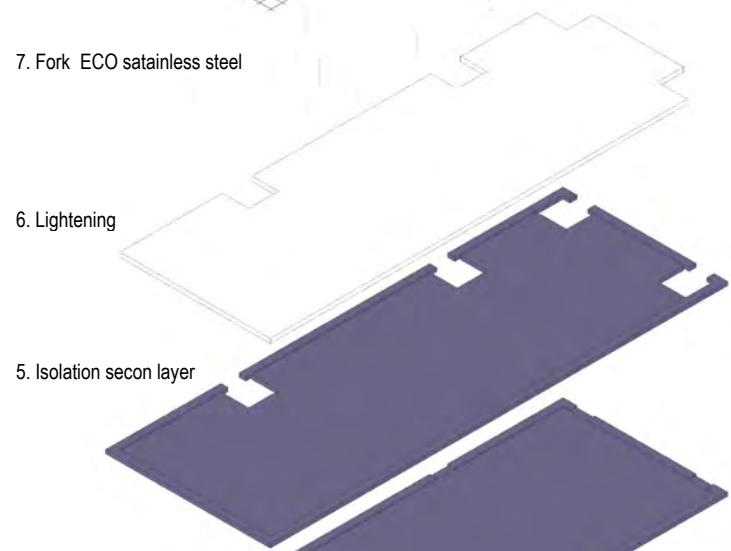
7. Fork ECO stainless steel



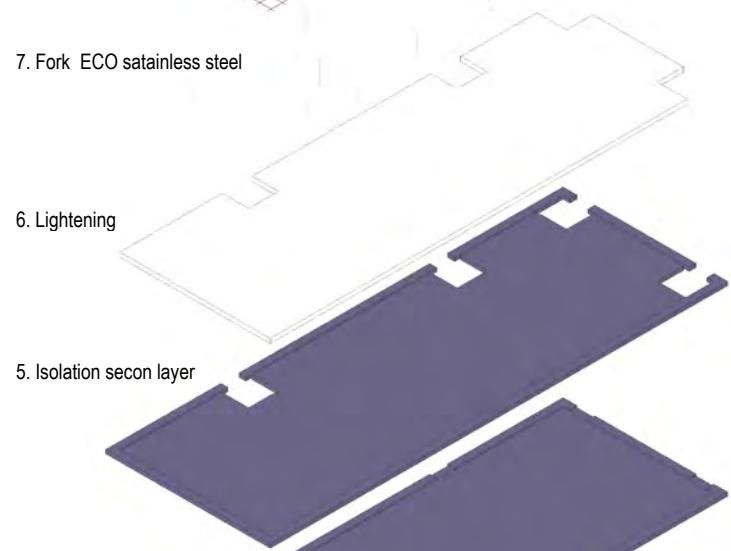
6. Lightening



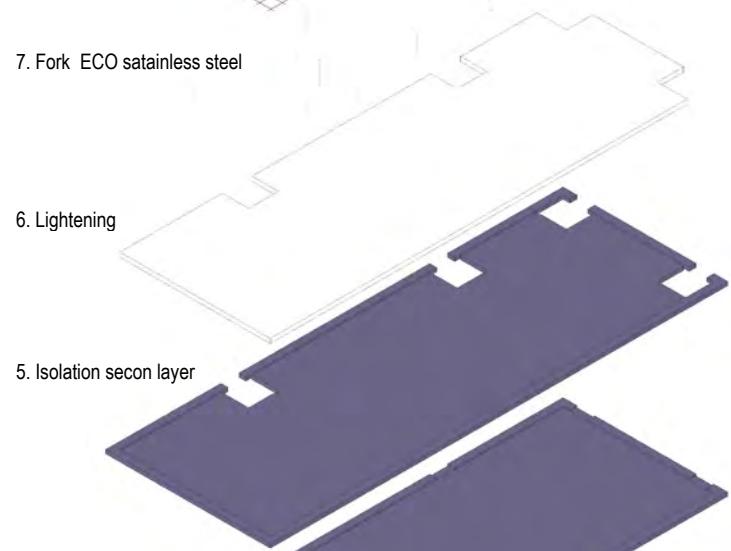
5. Isolation secon layer



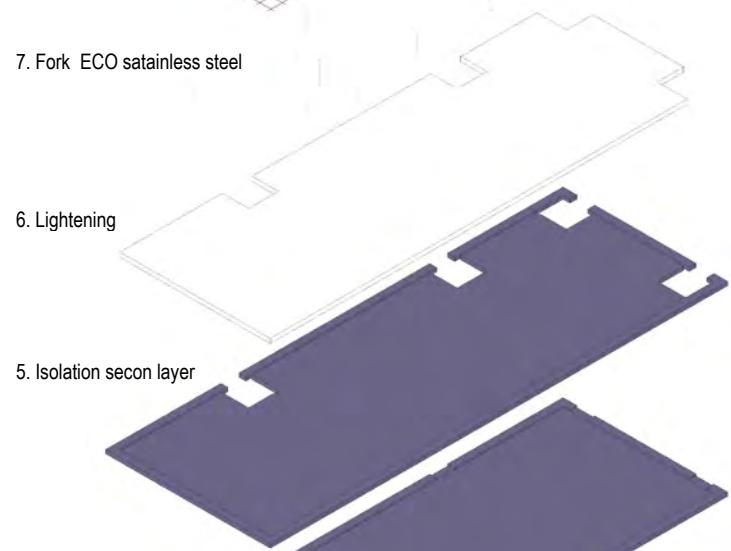
4. Isolation first layer



3. Frame reinforcement ECO



2. electro-welded mesh



1. External layer

