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(54) **Multifunctional balustrade kit**

(57) Multifunctional balustrade systems (kits) comprising aluminum profiles with a guiding gutter, which create the vertical column with desired sizes (project and

standard based), as well as the holding and sliding cursor, along the entire length of the vertical column, as in figure 1

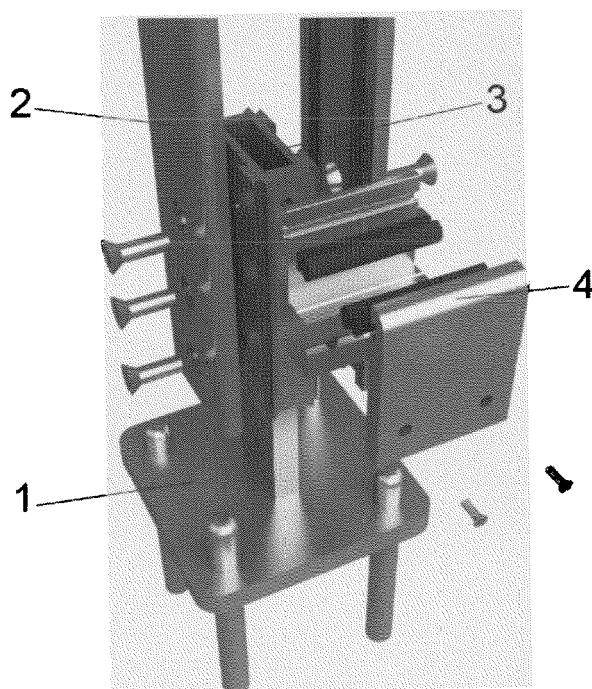


Figure 1

Description

[0001] The present invention relates to a sliding cursor along the entire length of the vertical column of the balustrade system which enables universal usage.

[0002] The objective of the present invention is to provide coupling of the cursor (s) with suitable vertical aluminum profiles of the balustrade system, through their guiding gutters, shaped-wise similarly as the cursor shape. In addition, the cursor is fixed in the desired position through the friction between two elements, there is no screw fixing; This system offers a wide usage, because with the same vertical profiles, only by joining different accessories, we can create different products like: Balustrade, Ventilated Facades, Fences, Sun Shading, unlimited products, allowing universal / multifunctional usage of the system which has been available so far (i.e. there has not been available any system so far, which, with only one vertical kit, to accomplish several / unlimited products / usages)

[0003] In accordance with the present invention, there is provided a multifunctional balustrade system, comprising the aluminum profiles sized 50 x 7, with a guiding gutter, which creates the vertical column with desired sizes (project and standard based), whereby coupling of the elements with aluminum profiles establishes the vertical column (fig1)

[0004] Novelty with this balustrade system is that, differently from the traditional systems, in the vertical profile are created two inside, or three (two in the inside and the third in the outside) continuous sliding throughout the length of the kit, while, onto the inner part, one or more cursors are moving, as well as the single cursor in the outside part, which also are fitted with slides on both sides. The product-system connecting accessories, are fixed onto these cursors, and their fixing aren't made with screws, but coupling of the sliding cursor with vertical aluminum profiles is enabled onto guiding gutters of the aluminum profiles themselves, shaped-wise similarly as the cursor shape.

[0005] In the drawings:

- fig. 1 is a perspective view of the multifunctional balustrade Kit
- fig 2. Aluminum profiles 5-12 mm, 10-30 mm and 10-50 mm as part of a multifunctional balustrade kit
- fig. 3 Aluminum profiles 5-12 mm, 10 -30 mm and 10-50 mm as part of a multifunctional balustrade kit
- fig. 4 Aluminum profiles 17-54 mm, 17-50 mm, 20-45 mm, 17-12 mm and 14-35 mm as part of a multifunctional balustrade kit
- fig. 5 Aluminum cursors 5-25 mm, 10-30 mm and 3-8 mm as part of a multifunctional balustrade kit

[0006] Referring to the drawings and initially to figure 1, the multifunctional balustrade system, in accordance with the preferred embodiment of the present inventions, comprises the basement (1), two aluminum profiles (2),

with two guiding gutters, whose functions are to create the vertical column with desired sizes (project and standard based), as well as a holding and sliding cursor (3) along the entire length of the vertical column, whose function is the most solid coupling of the former elements. Coupling of the elements with the aluminum profiles (2) establishes the vertical column; and rods /glass sheet holder (4);

[0007] When operating these different versions of the balustrade kit, coupling of the sliding cursor with vertical aluminum profiles, is enabled onto guiding gutters of the aluminum profiles, shaped-wise similarly as the cursor shape; In addition, the cursor is fixed in the desired position through the friction between two elements, there is no screw fixing.

[0008] In these systems one can insert as many cursors needed, therefore this enables the vertical kit be converted into a system with horizontal rod, a system with vertical rods, a system with glass sheet, and a system with glass-sheet and horizontal rods. Therefore, within the scope of the present invention are also the other variations as covered in the appended claims.

[0009] Another advantage of the balustrade system is the avoidance / eliminations of delays which are caused from the design, production and installation phases, since each product will have its own cycle (In the traditional systems, all mechanical processes applied for primary structures screws joining with secondary structures or anchors, takes a long time); Therefore, competitive cost, high quality and extraordinary speed are offered.

Claims

1. The aluminum profiles 5-12 mm, 10 -30 mm and 10-50 mm, as part of a multifunctional balustrade kit as in fig 2, adopted as cursor holding for connection with the aluminum profiles through their guiding gutters, with two inside continuous sliding throughout the length of the profile, shaped-wise similarly as the cursor shape;
2. The aluminum profiles 5-12 mm, 10 -30 mm and 10-50 mm, as part of a multifunctional balustrade kit as in fig 3, adopted as cursors holding for connection with the aluminum profiles through their guiding gutters, with three continuous sliding throughout the length of the kit (two inside and one in the outside part of the profile), shaped-wise similarly as the cursor shape;
3. The aluminum profiles 17-54 mm, 17-50 mm, 20-45 mm, 17-12 mm and 14-35 mm, as part of a multifunctional balustrade kit as in fig 4, adopted as cursors holding for connection with the aluminum profiles through their guiding gutters, with three continuous sliding throughout the length of the kit (two inside and one in the outside part of the profile),

shaped-wise similarly as the cursor shape;

4. The aluminum cursors 5-25 mm, 10-30 mm and 3-8 mm, as part of a multifunctional balustrade kit as in fig 5, adopted for connection with the aluminum profiles through their guiding gutters, shaped-wise similarly as the profiles shape; 5

5. The balustrade system (kit), in accordance with claim 1-5, wherein, coupling of the cursor with respective vertical aluminum profiles, is enabled onto guiding gutters of the aluminum profiles, shaped-wise similarly as the cursor shape 10

6. The balustrade system (kit), in accordance with claim 6, wherein, the cursor (in all mentioned models) is fixed in the desired position through the friction between two elements, there is no screw fixing visible; 15

7. The balustrade system (kit), in accordance with claim 6, wherein, one can insert as many cursors needed, therefore enabling the vertical kit be converted into a system with horizontal rod, a system with vertical rods, a system with glass sheet, and a system with glass sheet and horizontal rods, revealing a multi-function use in structures and substructures like in balustrades, railings, fences, ventilated facades, sun breakers, shelters, sunbeam refractors, canopies (sunshade, awning), doors handle 20
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8. structures and substructures in accordance with claim 7, assembled with other accessories and profiles, widely used in these kind of products 35

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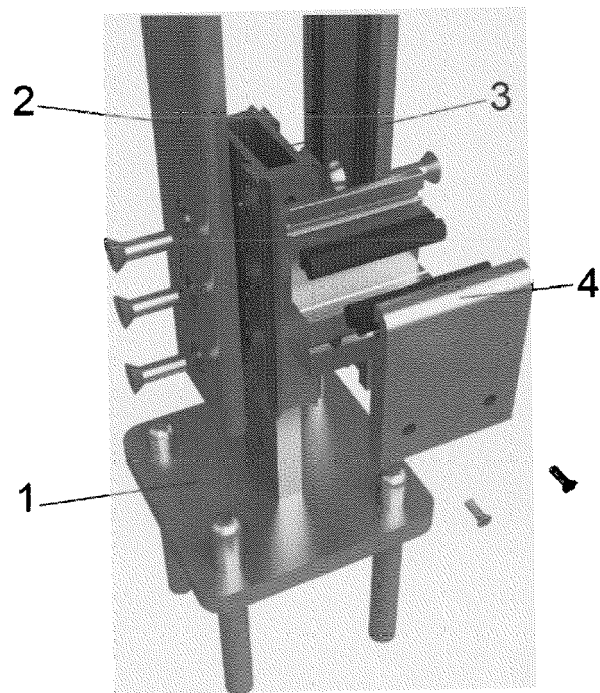


Figure 1

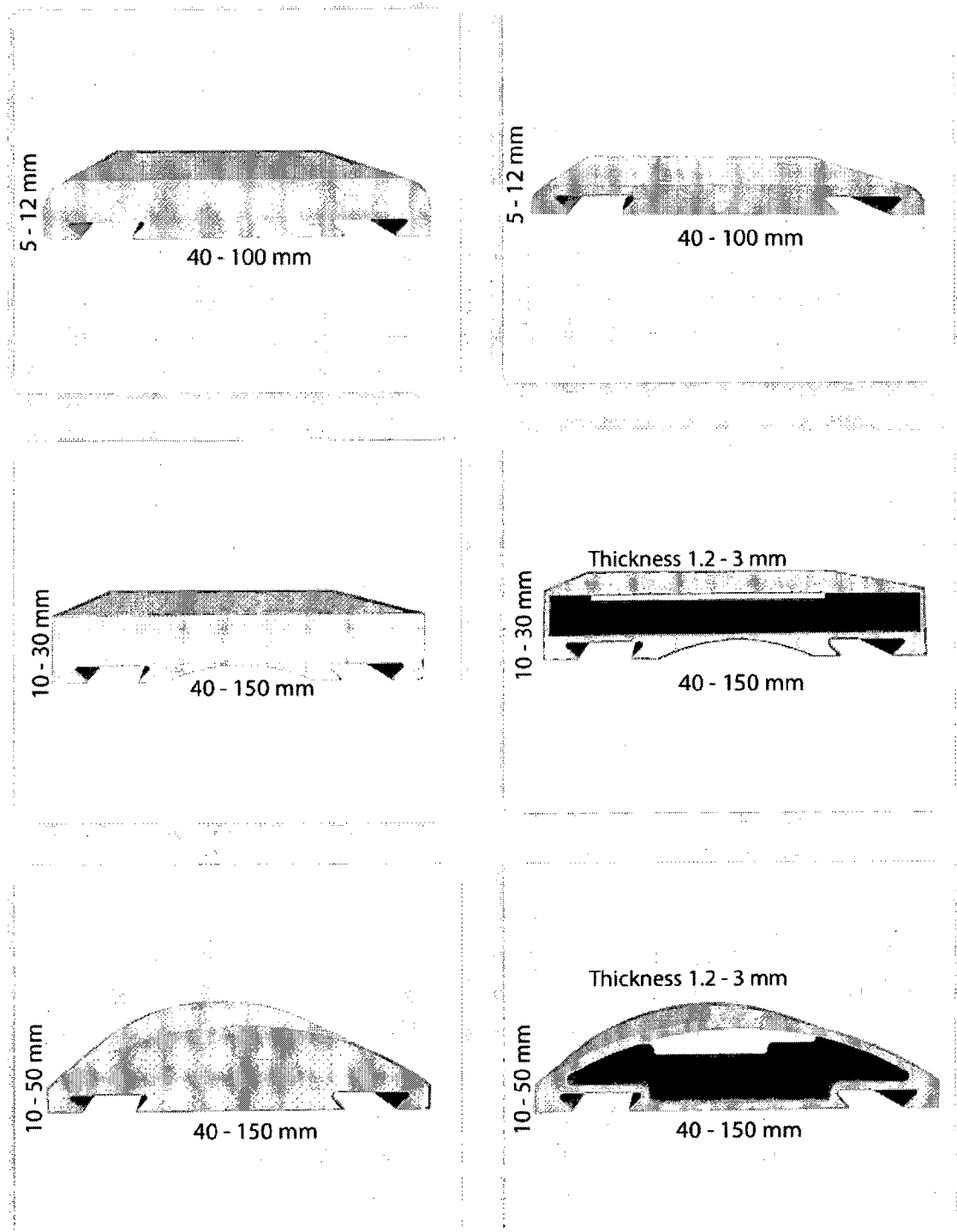


figure 2

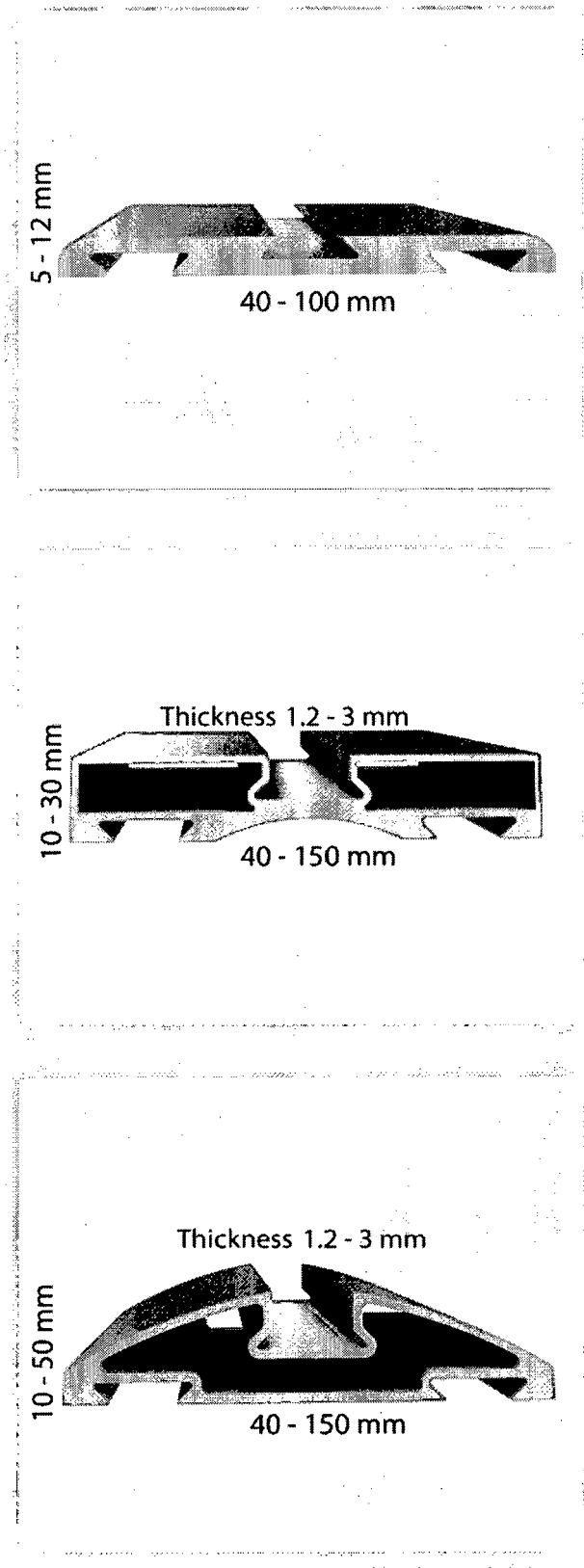


Figure 3

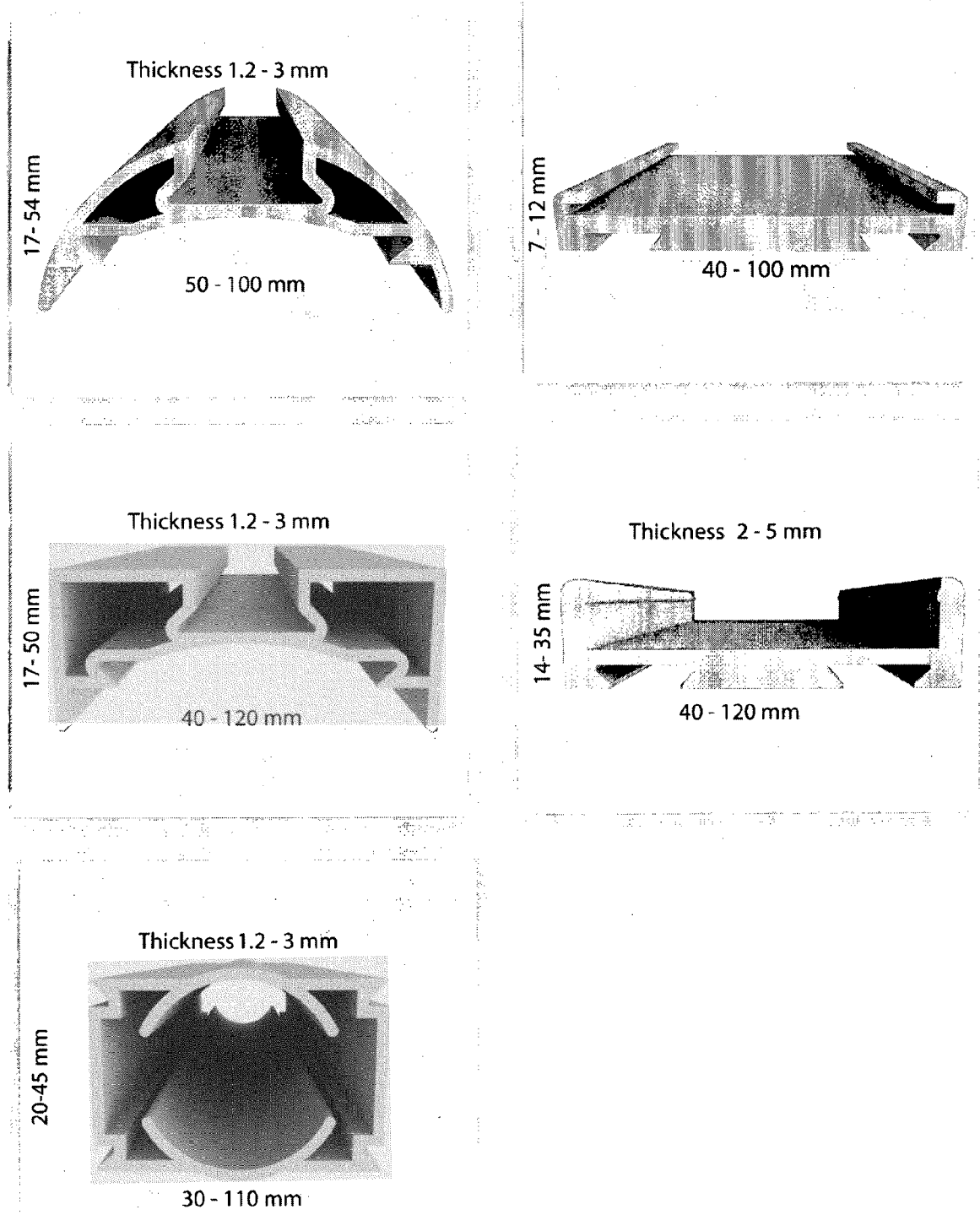


Figure 4

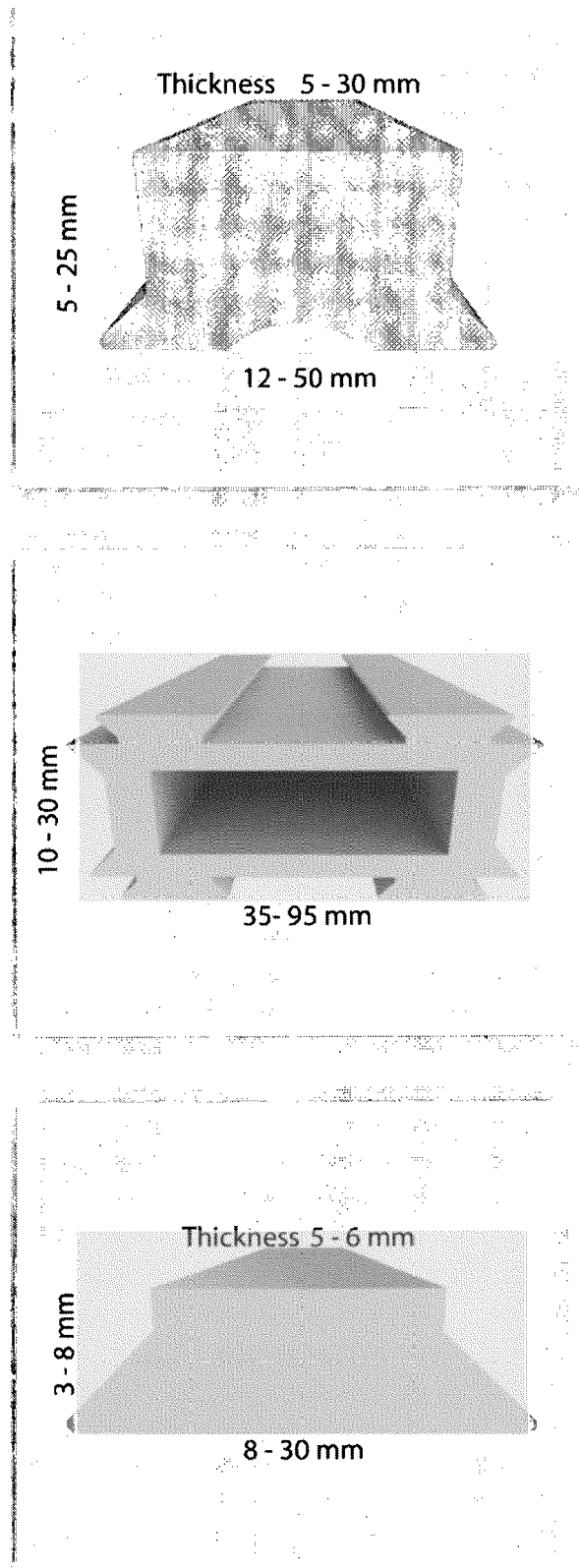


Figure 5.



EUROPEAN SEARCH REPORT

Application Number
EP 14 00 2583

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 15 January 2015	Examiner Fournier, Thomas
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 14 00 2583

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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