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(54) Title: JOINTING STRIP AND JOINT

(57) Abstract: A worktop joint comprising a first worktop 36 arranged in an end-to-end relationship with a second worktop 38, the first and second worktops having an upper surface and a lower surface, and having a jointing strip 10 arranged therebetween, the strip comprising: a vertical connecting portion 14 located intermediate the ends of the first and second worktops; a lower flange 12 arranged to extend over a portion of the upper surfaces of each worktop; a lower flange 22 arranged to support the a lower surface of at least one of the worktops. [Figure 4]
Jointing strip and joint

FIELD OF THE INVENTION

The present invention relates to a design for a worktop jointing strip, and a joint including such a strip and adjacent worktops. The present invention further relates to a method of joining worktops.

BACKGROUND OF THE INVENTION

Worktops are commonly used in fitted kitchens above cabinets, appliances etc as a solid and durable surface for food preparation and storage. Often worktops are constructed from a particle based core. For example, single or double post-formed laminate worktops with a chipboard core and Kraft paper and melamine backing are common. Sometimes, because of worktop length or features such as corners, it is necessary to use two pieces of worktop that are joined together to provide a continuous surface.

Water/liquid is often spilled onto worktops, or used to clean the surface. If liquids come into contact with the chipboard core there is the potential for damage as the core will expand and de-laminate, resulting in damage to the worktop over time.

The joints between adjacent pieces of worktop are a common area of weakness, where liquid ingress can occur.

Where there is a joint in a run of work-surface, such as an in-line joint, the standard methodology for joining the two pieces is via edge to edge joining using worktop connector bolts, ‘biscuits’ and sealant. The join is achieved by cutting a series of holes and grooves in the worktop panels to accept the connector bolts and ‘biscuits’. A sealant such as silicone sealant is also applied to the exposed core board for sealing and protecting the joint.

This method of joining allows the worktops to be pulled tight together using the connector bolts with the ‘biscuits’ glued in place to aid holding the join and also aid levelling of the work-surfaces, the sealant gives protection to the joint from water
ingress. However, the accuracy and quality of these joints can be variable, depending on the expertise and attention to detail of the person doing the jointing and also the quality of the tools and cutters used for the machining processes required.

Problems occur if the joint between the two work-surfaces are not level, whereby any exposed particle core board can be left exposed and subject to water/liquid and dirt ingress. The problem is compounded if the sealant has not been properly applied to the core board prior to joining. If the laminate covering of the worktop has been poorly cut, leaving small chips in the surface of laminate or what is known as ‘break-out’ it can also be subject to water/liquid ingress. A common cause of this problem is using worn or un-sharp cutters resulting in poor quality cut edges.

The present invention seeks to overcome or at least mitigate the problems encountered from poor quality joints in worktops, whether it be from workmanship or otherwise and to protect against the effects of water/liquids on work-surface joints, therefore increase the life expectancy of a worktop joint.

SUMMARY OF THE INVENTION

A first aspect of the present invention provides a worktop joint comprising a first worktop arranged in an end-to-end relationship with a second worktop, the first and second worktops having an upper surface and a lower surface, and having a jointing strip arranged therebetween, the strip comprising: a vertical connecting portion located intermediate the ends of the first and second worktops; an upper flange arranged to extend over a portion of the upper surfaces of each worktop; a lower flange arranged to support the lower surface of at least one of the worktops.

This provides easier alignment between the first and second worktops, so less skill is required for accurate installation, resulting in less risk of the worktop ends being exposed and therefore liable to be contacted by liquid and damaged.

The lower flange may be arranged to support both worktops.

The lower flange may have an upper surface higher adjacent the vertical connecting portion than at an opposing outer edge thereof. This may result in a closer fit between upper flange and worktops, thereby further improving the seal.
The lower flange can have a tapering thickness and/or has an angle of greater than 90° with respect to the vertical connecting portion.

The lower flange may have apertures therein for receiving fasteners to secure at least one of the worktops thereto to enhance securement of worktop.

The joint may further comprise at least one connector extending between the first and second worktops and wherein the vertical connecting portion has at least one aperture therein for the connector to extend therethrough. This ensures the jointing strip does not affect normal way of attaching worktops together.

The upper flange may be narrower than the lower flange. This makes the upper flange less visually obtrusive.

Optionally, the upper flange is less than half the width of the lower flange.

The upper flange may have a curved upper surface.

The upper flange may further extend around at least a portion of the front of the worktops. This may provide a better seal at front of worktops.

The jointing strip may have a substantially constant profile, except at a front thereof where the jointing strip is shaped to match the shape of front of the worktops.

The worktop joint according may further comprising sealant material located between the ends of the worktops and the jointing strip. Advantageously this further improves water resistance of seal.

At least one of the worktops may comprise a particle board core covered on at least an upper surface with a water resistant sheet covering.

The jointing strip may further comprise an angled extended section to facilitate connection of first and second worktops at an angle to each other.

A second aspect of the present invention provides a jointing strip for connecting together two worktops in an end-to-end relationship comprising: a vertical connecting portion for locating intermediate the ends of the first and second worktops, in use; an upper flange to extend over a portion of the upper surfaces of each worktop, in use; a
lower flange arranged to support the a lower surface of at least one of the worktops, in use; optionally wherein the lower flange has an upper surface higher adjacent the vertical connecting portion than at an opposing outer edge thereof.

This provides easier alignment between the first and second worktops, so less skill is required for accurate installation and results in closer fit between upper flange and worktops, thereby improving the seal.

The lower flange can have a tapering thickness and/or the lower flange can have an angle of greater than 90° with respect to the vertical connecting portion.

The lower flange may have apertures therein for receiving fasteners to secure at least one worktop thereto. This may enhance securement of the worktop.

The jointing strip may further comprise at least one aperture therein to enable a connector to extend therethrough. This ensures the jointing strip does not affect normal way of attaching worktops together.

The upper flange may be narrower than the lower flange. This makes the upper flange less visually obtrusive.

The upper flange may be less than half the width of the lower flange.

The upper flange may have a curved upper surface.

The upper flange may further extend downwardly at the front of the strip to cover at least a portion of the front of the worktops, in use. Advantageously, this may provide a better seal at front of worktop.

The jointing strip may have a substantially constant profile, except at a front thereof where the jointing strip is shaped to match the shape of front of the worktops between which it is to be fitted, in use.

The jointing strip can be formed as an extrusion or as a moulding.

The jointing strip may made from a metal or metal alloy, such as aluminium and/or from plastics material, such as PVC.
A third aspect of the present invention provides a method of joining first and second worktops in an end-to-end relationship, comprising the steps of: providing a jointing strip having vertical connecting portion, an upper flange, and a lower flange; positioning the jointing strip between the ends of the worktops such that the upper flange overlies an upper surface of the worktops and the lower flange supports a lower surface of at least one worktop; connecting the worktops together.

The method can further comprise a step of providing sealant between the ends of the worktops and/or a step of providing a water resistant sheet covering over at least a portion of the ends of the worktops to enhance the liquid resistance.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is an isometric view of a worktop jointing strip according to a first embodiment of the present invention;

Figure 2 is an enlarged isometric view of an end of the strip of Figure 1;

Figure 3 is a cross-section through the strip of Figure 1;

Figure 4 is an exploded isometric view of a part assembled joint utilising a strip according to the first embodiment of the present invention;

Figure 5 is an isometric view of a fully assembled joint;

Figure 6 is a cross-section through a worktop joint of Figure 5 on a plane 6-6;

Figure 7 is an isometric view of a worktop jointing strip according to a second embodiment of the present invention;

Figure 8 is an isometric view of a joint incorporating the strip of Figure 7;

Figure 9 is an isometric view of a worktop jointing strip according to a third embodiment of the present invention;
Figure 10 is an isometric view of a worktop jointing strip according to a fourth embodiment of the present invention;

Figure 11 is an isometric view of a joint incorporating the strip of Figure 10;

Figure 12 is an isometric view of a worktop jointing strip according to a fifth embodiment of the present invention; and

Figure 13 is an isometric view of a worktop jointing strip according to a sixth embodiment of the present invention.

DETAILED DESCRIPTION OF EMBODIMENT(S)

A first embodiment of a worktop jointing strip 10 in accordance with an aspect of the present invention is shown in Figure 1 and has been designed for use on work-tops such as those found in typical domestic and non-domestic kitchens and described above.

With reference to Figures 1, 2 and 3, the jointing strip 10 comprises a relatively narrow rounded upper flange 12 that sits centrally on top of a thin vertical web section 14. The upper flange 12 is visible in use above the upper surface 16 of the worktop 18 (Figure 5). The upper flange 12 is significantly narrower than conventional jointing strips but is still able to cover the cut edges of two pieces of worktop positioned either side of the jointing strip. In this embodiment the width is 4.8mm, but in other embodiments is preferably less than 10mm, more preferably less than 7mm.

The web section 14 is provided with clearance holes 20 at regular locations along the length of the strip 10 to accommodate standard worktop connector bolts as described in more detail below. In other embodiments, additional slots or holes can be provided to accommodate biscuits if a biscuit joint is also required.

At the base of the web section 14 there is a generally horizontal lower flange 22 centrally positioned with respect to the web. The flange 22 in this embodiment thins slightly towards its outer edges 24 in such a way that an upper surface 26 of the flange 22 is lower proximate the edges 24 than the web 14. In this embodiment the angle with respect to the web section 14 is approximately 91.3° by virtue of a 0.2mm
thinning, but in other embodiments the angle could preferably be in the range of 90.5°
to 100°, more preferably 91° to 95°. The vertical web section 14 defines a vertical
connecting portion between the upper 12 and lower 22 flanges of the strip 10.

In other embodiments the flange 22 may have a constant thickness, but be angled
downwardly from the web 14 at each side, or a combination of thinning and angling.
Thus, the cross-section of the strip is generally that of an unequal ‘T’.

The flange 22 also has clearance holes 28 at regular intervals along its length to
receive screws (not shown) to give added hold to the joint as described below.

In this embodiment, the strip 10 has been designed for use with 650mm or 600mm
deep worktops (cut to length accordingly), but could be made to suit any depth of
worktop. Further, the strip is dimensioned to accommodate a standard kitchen
worktop board thickness of approx. 38mm - 39mm (accounting for the finish laminate
and melamine foil/Kraft paper backing).

The strip 10 has also been dimensioned to offer a closer fit to a standard worktop “bull
nose” front edge profile, with a 6mm radius curves and to the top 30 and bottom 31
corners of the front edge 32 of the strip 10 in order to match the worktop front profile.
Additionally the upper flange 12 is chamfered at the front 34 thereof where it meets
the curve 30 to provide a smooth transition that minimises sharp edges.

The flange 22 preferably terminates short of the bottom corner 31 so as not to interfere
with hardware that may be located under the worktop, but this may not be the case in
other embodiments.

The worktop jointing strip 10 can be formed in various ways and made from various
materials. In a preferred embodiment, the strip is formed from a section of aluminium
that has been extruded to the desired profile and is then cut to a desired length. The
various sections and holes are punched or drilled out to achieve the desired design and
to accommodate commonly used worktop-joining hardware. An anodised finish can
be applied for protection to the aluminium and also to give a more appealing aesthetic.

Assembly of a joint using the strip is as follows:
With reference to Figures 4, 5, and 6, first and second worktops 36 and 38 intended to form a contiguous work surface are optionally first cut to a desired length. Additionally, if not already provided, transverse bores 40 and intersecting wells 42 are drilled into the edges 44 and undersides 46 of the first and second worktops 36 and 38 so as to accommodate worktop joining bolts 48, with suitable washers and nuts (not shown).

Silicone sealant (not shown) is then preferably applied liberally to the entire surface of edges 44 of both worktops 36 and 38. This provides a protective barrier to the cut edges of the worktops. It is also preferred that prior to applying a sealant to the ends of the worktops to be joined, the cut edges be protected by applying edging tape or edging laminate to the cut ends of the worktop pieces; again to aid sealing the core board of the worktops.

The strip 10 is then offered-up to one end 44 as shown in Figure 4, the bolts 48 are inserted into bores 40 and through holes 20, and the second worktop 38 is offered up to the other side of the strip 10, as shown in Figure 5. The bolts 48 are tightened to bring the strip 10 and worktops 36, 38 into close contact. Any excess sealant expelled as the worktops are brought to together is wiped away. The ‘I’ profile ensures accurate alignment of the two worktops.

In this preferred embodiment, the shape of the strip 10 additionally achieves a tighter fit to the cut ends of a worktop due to the tapered bottom section of the ‘I’ profile. As the two worktops 36 and 38 are pulled together via the worktop connector bolts 48 they are essentially pulled inwards and wedged tightly in to either side of the worktop jointing strip 10 therefore achieving a much tighter fit, particularly against the undersides 50 of the upper flange 12.

Having a better, closer fitting jointing strip greatly reduces the possibility of water, liquid or dirt ingress along the joint of the worktop. Furthermore, the lifespan of the joint is also aided by the use of silicone sealant acting as a water barrier.

Figures 7 and 8 illustrate a second embodiment of the present invention in which like parts to the first embodiment are labelled by like numerals with the prefix ‘1’ and only differences are discussed. For example the jointing strip which was identified with
reference numeral 10 in the first embodiment is identified with reference numeral 110 in the second embodiment.

In this embodiment the strip 110 is moulded, enabling the narrow rounded top profile 112 to extend around the front edge 132 of the strip. Therefore, yet further protection is provided to the joint, by covering the front edge 132 and then carrying the rounded profile detail back round to the underside of the worktops.

By being moulded, the second embodiment would lend itself to being manufactured from other materials to metals such as plastics (e.g. PVC), which could in turn be more easily coloured to be manufactured in colours to match the worktop colour.

Essentially this variation to the design gives a more complete seal around both sections of worktop to be joined. Moulding the worktop jointing strip, rather than extruding the profile would allow this variation to the design to be achieved at minimal cost. Using a moulding process allows for different tooling for the front edge profile, therefore being able to accommodate numerous worktop shapes and profiles as are common at minimal cost.

Installation would be carried out in the same way as for the first embodiment.

Figure 9 illustrates a third embodiment of a worktop jointing strip according to the present invention in which like parts to the first embodiment are labelled by like numerals with the prefix ‘2’ and only differences are discussed.

In this embodiment, the strip 210 further includes a recess 252 in the bottom surface of the web section 214. The recess 252 is located in the region between the end of the lower flange 224 and the bottom corner 231 of the front edge 232 and extends substantially perpendicularly to the bottom surface of the web section 214. In addition, the upper flange 212 is radiused at the front thereof about a vertical axis to remove sharp corners in a different way to the first embodiment and the front edge profile differs from the first two embodiments to match a different worktop profile.

Installation would be carried out in the same way as for the first embodiment. Upon installation, the recess 252 is configured to align with corresponding slots present in the worktops (not shown) to allow the attachment of a liquid director to the bottom
surface of the worktop, for example of the type disclosed in our granted UK patent GB2499071B without interference from the jointing strip.

Figures 10 and 11 illustrates a fourth embodiment of a worktop jointing strip according to the present invention in which like parts to the third embodiment are labelled by like numerals with the prefix ‘3’ rather than a prefix ‘2’ and only differences are discussed.

In this embodiment, the jointing strip 310 includes first 356 and second 358 extended sections. The web section 314 includes a first vertical fold line 360, located at the front end 334 of the upper flange 312, between the web section 314 and the first extended section 356 so that the first section is angled with respect to the web section 314. A second vertical fold line 362 is located between the first 356 and second 358 extended sections so that the first and second extended section are angled with respect to each other. In this embodiment, the recess 352 is located in the bottom surface of the second extended section between the second fold line 362 and the bottom corner 331 of the front edge profile 332.

These angled extended sections 356, 358 facilitate connection to, and provide protection of the joint where a first worktop 336 and a second worktop 338 are to be joined at 90° to each other (i.e. in a corner) and the worktops are trimmed such that the main part of the jointing strip 312 is parallel to, but offset from a front face of the first worktop (commonly referred to as a mason mitre joint). The angle between web section 310 and first extended section 356 and between the first and second extended section 356, 358 may be flexible/bendable to allow for easier installation. In other embodiments, the web section 314 may include only one horizontal fold line and extended section.

Figure 12 illustrates a fifth embodiment of a worktop jointing strip according to the present invention in which like parts to the fourth embodiment are labelled by like numerals with the prefix ‘4’ rather than a prefix ‘3’ and only differences are discussed.

In this embodiment, the upper flange 412 extends to the top corner 430 of the front edge 432 of the strip 410, and such extends over the first 456 and second 458
extended sections of the strip 410. This provides an improved seal on the top edges of the worktops to be joined at the corner region between the worktops. The extension of the upper flange 412 over the first 360 and second 362 fold lines inhibits to some extent) the fold angles from being flexible (dependent upon the material of the strip 410).

Figure 13 illustrates a sixth embodiment of a worktop jointing strip according to the present invention in which like parts to the fifth embodiment are labelled by like numerals with the prefix ‘5’ rather than a prefix ‘4’ and only differences are discussed.

In this embodiment, the upper flange 512 is configured to extend over the first 556 and second 558 extended sections and around the top 530 and bottom corners 531 of the front edge 532 of the strip 510. This configuration provides a more complete seal around the top and front edges at the corners of the worktops to be joined.

It will be apparent that the jointing strip and joint of the present invention has been designed to address the problem of water ingress on work surface joints, particularly for laminated particleboard core worktops. This problem is particularly acute in high use kitchens such as those found in student accommodation sites where the kitchens have multiple occupant usage. The worktop jointing strip has been designed to give greater protection to the joint and also to give a greater lifespan to the joint compared to that of a standard worktop joint constructed using worktop connectors, biscuits and sealant. Additionally, the tighter fit may reduce the risk of dirt being trapped under the upper flange.

The overall profile of the worktop jointing strip has been designed to be thinner in section and less prominent than currently available worktop jointing strips, which often have a stigma associated with them due to the look, the association with low end affordable kitchens and the intrusive aesthetic they leave on a run of work-surface. The worktop jointing strip in this instance is a slender extruded aluminium ‘I’ profile.

Although the invention has been described above with reference to one or more preferred embodiments, it will be appreciated that various changes or modifications may be made without departing from the scope of the invention as defined in the
appended claims. For example the front shape could be changed so as to match differing worktop front profiles. The shape and size of the upper flange 12, 112, 212, 312, 412, 512 may be altered as desired, e.g. to have a flat or trapezoidal shape. The jointing strip may have curved sections in plan view for particular joints, such as at worktop corners.

It will be appreciated that although the present invention has been described primarily in relation to laminate particle board applications, a number of benefits of the present invention nevertheless apply to worktops manufactured from different materials, such as solid wood.
Claims

1. A worktop joint comprising a first worktop arranged in an end-to-end relationship with a second worktop, the first and second worktops having an upper surface and a lower surface, and having a jointing strip arranged therebetween, the strip comprising:

   a. a vertical connecting portion located intermediate the ends of the first and second worktops;

   b. an upper flange arranged to extend over a portion of the upper surfaces of each worktop;

   c. a lower flange arranged to support the lower surface of at least one of the worktops.

2. A worktop joint according to claim 1 wherein the lower flange is arranged to support both worktops.

3. A worktop joint according to claim 1 or claim 2 wherein the lower flange has an upper surface higher adjacent the vertical connecting portion than at an opposing outer edge thereof.

4. A worktop joint according to claim 3 wherein the lower flange has a tapering thickness.

5. A worktop joint according to claim 3 or claim 4 wherein the lower flange has an angle of greater than 90° with respect to the vertical connecting portion.

6. A worktop joint according to any preceding claim wherein the lower flange has apertures therein for receiving fasteners to secure at least one of the worktops thereto.

7. A worktop joint according to any preceding claim further comprising at least one connector extending between the first and second worktops and wherein the vertical connecting portion has at least one aperture therein for the connector to extend therethrough.
8. A worktop joint according to any preceding claim wherein the upper flange is narrower than the lower flange.

9. A worktop joint according to claim 8 wherein the upper flange is less than half the width of the lower flange.

10. A worktop joint according to any preceding claim wherein the upper flange has a curved upper surface.

11. A worktop joint according to any preceding claim wherein the upper flange further extends around at least a portion of the front of the worktops.

12. A worktop joint according to any preceding claim wherein the jointing strip has a substantially constant profile, except at a front thereof where the jointing strip is shaped to match the shape of front of the worktops.

13. A worktop joint according to any preceding claim further comprising sealant material located between the ends of the worktops and the jointing strip.

14. A worktop joint according to any preceding claim wherein at least one of the worktops comprises a particle board core covered on at least an upper surface with a water resistant sheet covering.

15. A worktop joint according to any preceding claim wherein the jointing strip further comprises an angled extended section to facilitate connection of first and second worktops at an angle to each other.

16. A jointing strip for connecting together two worktops in an end-to-end relationship comprising:

   a. a vertical connecting portion for locating intermediate the ends of the first and second worktops, in use;

   b. an upper flange to extend over a portion of the upper surfaces of each worktop, in use;

   c. a lower flange arranged to support the a lower surface of at least one of the worktops, in use;
wherein the lower flange has an upper surface higher adjacent the vertical connecting portion than at an opposing outer edge thereof.

17. A jointing strip according to claim 16 wherein the lower flange has a tapering thickness.

18. A jointing strip according to claim 16 or claim 17 wherein the lower flange has an angle of greater than 90° with respect to the vertical connecting portion.

19. A jointing strip according to any one of claims 16 to 18 wherein the lower flange has apertures therein for receiving fasteners to secure at least one worktop thereto.

20. A jointing strip according to any one of claims 16 to 19 further comprising at least one aperture therein to enable a connector to extend therethrough.

21. A jointing strip according to any one of claims 16 to 20 wherein the upper flange is narrower than the lower flange.

22. A jointing strip according to claim 21 wherein the upper flange is less than half the width of the lower flange.

23. A jointing strip according to any one of claims 16 to 22 wherein the upper flange has a curved upper surface.

24. A jointing strip according to any one of claims 16 to 23 wherein the upper flange further extends downwardly at the front of the strip to cover at least a portion of the front of the worktops, in use.

25. A jointing strip according to any one of claims 16 to 24 wherein the jointing strip has a substantially constant profile, except at a front thereof where the jointing strip is shaped to match the shape of front of the worktop between which it is to be fitted, in use.

26. A jointing strip according to any one of claims 16 to 25 formed as an extrusion.

27. A jointing strip according to any one of claims 16 to 25 formed as a moulding.
28. A jointing strip according to any one of claims 16 to 26 made from a metal or metal alloy, such as aluminium.

29. A jointing strip according to any one of claims 16 to 27 made from plastics material, such as PVC.

30. A method of joining first and second worktops in an end-to-end relationship, comprising the steps of:

   a. providing a jointing strip having vertical connecting portion, an upper flange, and a lower flange;

   b. positioning the jointing strip between the ends of the worktops such that the upper flange overlies an upper surface of the worktops and the lower flange supports a lower surface of at least one worktop;

   c. connecting the worktops together.

31. A method according to claim 30 further comprising a step of providing sealant between the ends of the worktops.

32. A method according to claim 30 or claim 31 further comprising a step of providing a water resistant sheet covering over at least a portion of the ends of the worktops.

33. A method according to any of claims 30 to 32 wherein the jointing strip is a jointing strip according to any of claims 16 to 29.
International application No
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A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A47B F16B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tr>
<td>X</td>
<td>GB 1 081 423 A (PERFONIT LTD) 31 August 1967 (1967-08-31) the whole document</td>
<td>1,2,12, 14,30-33, 3-11,13, 15</td>
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<td>X</td>
<td>GB 2 424 685 A (CLISBY MATTHEW ANTHONY [GB]; CLISBY THOMAS HENRY [GB]) 4 October 2006 (2006-10-04) the whole document</td>
<td>1,2,30</td>
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<td>US 2006/174579 A1 (MATSON JOHN R [US]) 10 August 2006 (2006-08-10) the whole document</td>
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<td>X</td>
<td>DE 195 41 050 C1 (BULTHAUP GMBH &amp; CO [DE]) 31 October 1996 (1996-10-31) abstract; figures</td>
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Authorized officer
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INTERNATIONAL SEARCH REPORT

Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☑ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
   1-15, 30-33

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15, 30-33

   Claims 1-15, 30-33 relate to - a worktop joint - and a method of jointing to worktops in an end to end relationship.

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2. claims: 16-29

   Claims 16-29 relate to - a jointing strip.

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<td>GB 1081423</td>
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