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ABSTRACT

A wraparound foldable blank, in particular a corrugated cardboard blank, for the manufacture of a shelf ready packaging (SRP) container convertible from a transport configuration into a display configuration in which the container has been separated into a display tray and a discardable hood, the blank scored and cut to comprise, commencing from a first edge of the blank in a first direction: quadrilateral-rectangular first, second, third and fourth side panels respectively delineated by score lines between adjacent ones of the side panels; a primary fastening tab present either along an edge of the first side panel or the fourth panel not adjoining another side panel and securable to the fourth side panel or the first side panel, as the case may be, when in the transport and display configurations; a first, preferably quadrilateral, front panel and a first quadrilateral rear panel respectively present on opposite front and rear edges of the first side panel and delineated therefrom by a score (i.e. fold) line; a second front panel and a second quadrilateral rear panel respectively present on opposite front and rear edges of the third side panel and delineated therefrom by a score line; first and second rear flaps, preferably quadrilateral, respectively present at a rear edge of the second and fourth side panels and delineated therefrom by a score line, the first and second rear flaps both securable to the first and second bottom panels when in the transport configuration; a first tear line extending from a terminal front edge of the second side panel across the second side panel and preferably past the score line into the adjoining first rear flap to end at a terminal edge of the first rear flap; and a second tear line extending from a terminal front edge of the fourth side panel across the fourth side panel and preferably past the score line into the adjoining second rear flap to end at a terminal edge of the second rear flap.

Fig. 1

SHIPPING AND DISPLAY CONTAINER AND BLANK FOR FORMING SAME

FIELD OF THE INVENTION

The present invention is generally concerned with containers, and more particularly with shipping containers manufactured from board material and which include perforation lines for removal of a portion of the container to create a shelf-ready product display tray.

BACKGROUND TO THE INVENTION

It is known practice in the consumer goods (products) sector, but others as well, to employ larger containers to transport a plurality of smaller, packaged products from their place of manufacture to a place of sale, such as a retail store. These types of containers may have the form of open trays enveloped with plastic foil material, fully or partially enclosed rectangular cuboid packaging boxes and the like. More often than not, such transport containers are typically manufactured from cardboard, corrugated card or fiber board, but also other board materials may be used such as corrugated plastic boards, eg for re-useable transport containers. The present invention is applicable to corrugated card board and corrugated plastic board containers as well as non-corrugated designs.

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The most widely used or common transport / shipping box is the so-called regular slotted container (RSC) made from a single blank of cardboard or corrugated cardboard, with four side panels and four flaps on the bottom box opening and four flaps at the top opening that are folded to provide a closed box bottom and openable box top. These boxes require glue, tape or staples to secure the flaps in their folded, box-closing state.

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Many retailers prefer the vendible packaged products, such as canned food, packaged noodle bags, drink pouches, etc, to be orderly placed and delivered in transport containers that can easily be transformed / converted into a shelf-ready display carton or tray. This obviates the labor associated with individually taking

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out the products from the transport container and placing these in orderly fashion on a display shelf. Thus, there are a variety of transport containers (also called shipping boxes) that are designed to be convertible with little manual effort into shelf-ready display trays. Such type of convertible packaging is often referred to as shelf ready packaging (SRP) containers.

One type of such convertible containers are so-called telescope-boxes which are characterized by a separate lid and/or a bottom telescoping over the body of a box which may have three side walls of equal height and a front side wall of reduced height which in use will be placed on a shelf facing an aisle to allow consumers to readily see the contents in the opened box. Whilst aesthetically pleasing, such two-component boxes are more expensive to manufacture as they required two separate cardboard blanks to be cut and respectively folded and then assembled into the shipping container by sliding the lid onto the body of the box after the latter has been filled with products.

Other such convertible container designs comprise a single cardboard blank which is scored to provide foldable panels and flaps that when the blank is folded and appropriately glued, provide the sides, the top and the bottom of a typically rectangular cuboid container. Tear strips or perforated tear lines formed through selected panels of the blank / container, allow a portion of the container to be removed to expose the packaged products which are retained in the remaining part of the container.

There are single cardboard blank convertible containers of the last mentioned type where the perforation lines / tear strips are located such that an entire top portion (or 'hood') of the container can be removed, thereby leaving a display tray with a relatively tall back side, side walls with forward sloping edges and a relatively narrow front panel which prevents the products from falling out, yet allows the products to remain in rows whilst facilitating consumers to view the products and remove individual items from the tray with ease.

Examples of such type of SRP containers are disclosed in the following patent documents: US4058206, GB2437514A, US2005/0184139A, WO2012/145515A, WO2015/026402A and US5657872.

5 A convertible transport-display container combining the aforementioned telescopic two-component cardboard container having a lid and an open-top base box, and perforation lines in the base box's side wall panels, is disclosed in US2004/0222127A.

10 There are many considerations and factors that influence individual container designs. One is the need for the container to provide adequate crush-resistance when performing its transport container function. For transport boxes which are to be filled with relatively heavy loads and which are stapled on top of each other during transport / storage, corrugated cardboard is typically used. To ensure
15 adequate stability under loads, the panels which provide the upstanding side walls of the container when in transport orientation require to have their corrugations / flutes extend vertically; this influences blank design. Such design consideration also plays a role whereby it is desired that the flutes / corrugations of those panels of the display tray that will be upstanding and provide a front
20 display panel and a rear panel when the container is in the display orientation, should preferably also extend vertically.

Another consideration is a desire to ensure that at least that one of the panels of the container which once in its display configuration face the consumer, when in
25 use, have clean edges and no 'ragged' tear-off edges, to achieve an aesthetic pleasing appearance.

Equally, ease of erecting the container, either manually or using suitable machinery, from its cardboard blank stage through folding and selective gluing /
30 taping of flaps and container side/top/bottom panels is a consideration.

Many of the known SRP containers manufactured from corrugated cardboard are based on so-called FEFCO 04 folder-type boxes (containers). FEFCO is the

European Federation of Corrugated Board Manufacturers and has issued a code making the identification of certain type of cases (containers; boxes) manufactured from corrugated board materials simpler. The code has been adopted by ICCA, the International Corrugated Case Association, with its
5 worldwide membership of corrugated case manufacturers. Folder-type boxes usually consist of only a single piece (blank) of board. The bottom of the box is hinged to form two or all side walls and the cover (top). Locking tabs, handles, display panels etc can be incorporated in some designs.

10 Noting the very large number of unique transport-display convertible container designs, there still is a need for devising a container configuration that exhibits ease of manufacturing of the underlying corrugated blank, and that can be erected into its transport configuration with little effort, and that can then also be easily converted into its display (tray) configuration, whilst maintaining a clean
15 front view.

It is to be understood that, if any prior art is referred to herein, such reference does not constitute an admission that the prior art forms a part of the common general knowledge in the art, in Australia or any other country.

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SUMMARY OF THE INVENTION

One aspect of the present invention is a further development of the applicant's SRP container and blank thereof disclosed in patent application AU 2020256374,
25 the contents of the specification of that patent application being incorporated herein by way of shorthand cross-reference.

The development provides a blank configured for wraparound foldable erection of a product-filled SRP container, wherein the products to be transported and
30 subsequently displayed can be placed on that one of the side panels of the blank which will ultimately be the base panel in the display configuration of the tray part of the container, wherein the overall lay-out is modified such that the transport orientation and presentation orientation of the erected container can be one and

the same without substantially degrading crush resistance of the container in transport orientation. However, the blank can also be pre-glued into a flat-pack and erected to receive product when partially erected, rather than being used in wrap-around mode.

5

The skilled person will appreciate that the selection of suitable cardboard or corrugated cardboard stock material for manufacturing the container blank will be dictated by the permissible loads which the container is to carry, primarily when in the transport configuration, amongst other considerations. There are a number of Standards issued by various national Standards Associations that relate to corrugated cardboard and use in container manufacture, such as Australian Standard AS 3537, ASTM International (formerly known as American Society for Testing and Materials) standards D1974, D5118, D5639 etc., and it is within the knowledge of the skilled cardboard container manufacturer to select an appropriate composition to meet use / application requirements for such SRP Containers. By the same token, the invention is not limited to use of corrugated cardboard materials, whilst preferred, and other materials as outlined above may be used too, including solid fiberboard having appropriate grammage (g/m^2 or gsm), typically between 350 to 1000.

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Suitable corrugated cardboard materials include all single flute and twin cushion (flute) white and brown liner corrugated boards, and all laminated corrugated boards. E, B, R and C flute profiles will be the most suitable, however all flute profiles and combinations with skilled selection of the appropriate gsm paper liners and coating mediums can be used to achieve a desired SRP container compression strength, ie to withstand the transport and palletization loads. The fiber in the liners and mediums in corrugated boards, solid fiberboards and laminated boards are preferably chosen so that these can be recycled. Also, the boards may be manufactured using craft-virgin fiber, recycled fiber or a combination of both.

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In accordance with a first aspect, the present invention provides a foldable blank, preferably a corrugated cardboard blank, for the manufacture of a shelf ready

packaging (SRP) container convertible from a transport configuration into a display configuration in which the container has been separated into a display tray and a discardable hood, the blank scored and cut to comprise, commencing from a first edge of the blank in a first direction: quadrilateral-rectangular first, second, third and fourth side panels respectively delineated by score lines between adjacent ones of the side panels; a primary fastening tab present either along an edge of the first side panel or the fourth side panel not adjoining another side panel, the fastening tab secured to the fourth side panel or the first side panel, as the case may be, when in the transport and display configurations; a tray front panel and a tray rear panel respectively present on opposite front and rear edges of either the first or the third side panel and delineated therefrom by a respective score (i.e. fold) line; a hood front panel and a hood rear panel respectively present on opposite front and rear edges of the third side panel where the tray front and rear panels are present at the first side panel and otherwise at the third side panel where the tray front and rear panels are present at the third side panel, as the case may be, and delineated therefrom by a respective score line; first and second rear flaps, respectively present at a rear edge of the second and fourth side panels and delineated therefrom by a respective score line, the first and second rear flaps securable to the tray and hood rear panels when in the transport configuration; a first tear line extending from a terminal front edge of the second side panel across the second side panel and past the score line into the adjoining first rear flap to end at a terminal edge of the first rear flap; and a second tear line extending from a terminal front edge of the fourth side panel across the fourth side panel and past the score line into the adjoining second rear flap to end at a terminal edge of the second rear flap.

In accordance with a second aspect of the present invention there is provided a shelf ready packaging (SRP) container, comprised of the single board blank according to embodiments of the first aspect of the invention folded into a rectangular cuboid, the container being convertible from a transport configuration into a display configuration in which the container has been separated at the tear lines in the second and fourth side panels into a display tray and a discardable hood, the container in the display configuration having (i) a rear wall comprising

the rear tray and hood panels and the two rear flaps appropriately secured, (ii) two upright side walls comprised of the second and fourth quadrilateral side panels, (iii) a bottom wall comprised of the first or the third quadrilateral side panel, as the case may be, (iv) a top wall comprised of the third or the first quadrilateral side panel, as the case may be, and (v) a front comprised of the tray and hood front panels, wherein the quadrilateral side panels together define a rectangular cross-sectioned enclosure with a rear opening covered by the rear wall and with a front opening at least partially covered by the tray and hood front panels, the tray and hood front panels being respectively secured to portions of the second and fourth side walls either side of the tear line, and wherein the second and fourth side panels and associated first and second rear flaps that respectively comprise the tear lines can be separated along the tear lines into the two container parts thereby transforming the container into the display tray, whereby the tray front panel provides an upright extending front and the tray rear panel provides an upright rear (or back) of the tray, the discardable hood comprises the hood front panel and the hood rear panel, and each of the tray and hood further comprises separated sections of the second and fourth side panels and first and second rear flaps.

In one preferred embodiment, the container is manufactured from corrugated cardboard, wherein the blank is cut such that the flutes of the cardboard extend parallel to the first direction, i.e. such that in a transport and product display orientation of the wraparound folded, product-filled SRP container, the flutes of the second and fourth side panel, as well as in the rear flaps and front flaps associated with these side panels, extend upright and the flutes in the first and third side panels and flaps and tabs extend parallel to the surface on which the container is placed with either its third side panel or its first side panel.

Alternatively, the corrugations of the cardboard blank may extend perpendicular to the first direction such that, in the product display orientation, the flutes of all side panels will extend parallel so the surface on which the container is placed either with its third or first side panel. This then means that the container will preferably be transported in an orientation that is 90 degrees rotated when

compared to the display configuration such that the corrugations of the side panels all extend upright.

5 It should be appreciated that the relative terms front, rear, side, upper, bottom and the like, are used herein to facilitate distinguishing between the various panels that makeup the cuboid container, wherein an 'upright' transport orientation of the container once erected in wrap-around manner from the blank can be the same 'upright' display orientation of the container prior to and after separation of the hood from the display tray. The terms are not to be understood as limiting but relative to provide spatial understanding of the various possible container orientations. By way of example, one of the container's side panels, namely one of the two parallel side panels identified as first and third side panels above and which do not have tear lines, will typically provide the bottom of the container in one possible transport configuration and the bottom of the display tray in the display configuration. The container will typically not be oriented during transport such that a side wall with the tear lines is the standing face of the container. Preferably, the upright display configuration is the same as the upright container transport orientation where the flutes of the cardboard material used in manufacture of the blank extend in the first direction and container filling is effected using the aforementioned wraparound erection sequence. However, other applications may require the same blank (specifically devised for wraparound container erection) to be erected into an open top box which is then filled from the open top and the flaps and panels folded to close the box for transport in that orientation, as outlined in AU2020256374, i.e. with all container side panels in an upright orientation.

As already noted, to improve crush-rigidity in such cases during transport, it may be desired to cut the blank in a manner wherein the flutes of the cardboard blank extend perpendicular to the first direction mentioned above.

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Reverting then to embodiments of the container blank. Although less preferred, the tear line portions of the second and fourth side panels that extend into (i.e. are present at) the first and second rear flaps of the blank may be formed as full

cut lines which separate and subdivide the first and second rear flaps into two partial flaps. In essence this means that there is no tear line extending into the two rear flaps, given that these are comprised of independent flap portions that may be folded independently along the score line that connects the flaps with the
5 respective side panels.

Whilst it is preferred to have quadrilateral rear flaps and panels sized such as to provide a fully contiguous rear face of the container when erected from the blank, this is not essential as long as either the two rear panels or the two rear flaps
10 provide such contiguous rear face when the blank is folded into the box-like configuration.

Further, in one embodiment of the hood rear panel, a tear line may be provided across a width of the panel, preferably parallel the folding line which connects the
15 hood rear panel to its adjoining side panel. Thus, when detaching the hood from the tray part, only part of the hood rear panel will remain attached to the hood, whereas the free-end portion of the hood rear panel will have severed therefrom.

The tear lines which allow the container to be divided into two parts can be
20 embodied in various formats. One is a continuous line of intermittent dot or dashed perforations extending through the thickness of the relevant side panels. In another embodiment, alternating dot and dashed perforations may be present. Relevantly, the tear line format is chosen such as to create an as clean as possible edge on either side of the tear line in the process of separating the
25 upright side panels yet provide sufficient integrity to the container during transport. In another embodiment, the tear lines comprise portions completely cut through the blank side panels, preferably extending from the front and rear edges, and portions with intermittent dot, dashed or both perforations extending through the blank, preferably in the center region of the side panels.

30 The blank will advantageously have additional front flaps and front fastening tabs in various possible embodiments and configurations.

In one such embodiment, a first front flap is integrally formed with the second quadrilateral side panel and a second front flap is integrally formed with the fourth quadrilateral side panel, with respective score lines delineating the flaps from the respective side panels, wherein when the blank is erected into the container
5 transport configuration both the first and second front flaps can be secured to or at the front tray panel to increase rigidity of the erected container.

In a preferred configuration, both the first and second front flaps may define a cut out, whereby the tear line in the second and fourth side panels terminates at the
10 front edge of the respective side panel at a location coinciding with the location of an edge of the cut out in the respective front flap. In this embodiment, the tray front panel, present at the third side panel and delineated therefrom by the intermediate score line, has on its opposite edges facing the first and second front
15 flaps, respective fastening tabs that are delineated therefrom by respective score lines and shaped to conform and sit within the cut outs in the first and second front flaps, respectively. During erection of the container from such blank, the second and fourth side panels can thus be folded at the respective score lines to extend perpendicular with respect of the intervening third side panel without
20 interference by the fastening tabs which in turn can then be secured to the second and fourth side panels after the tray front panel has also been folded to extend perpendicular to the third side panel. That is, the tray front panel can thereby be secured to one side of the tear lines to the second and fourth side panels, whereas the first and second front flaps will only be secured to the hood front panel, thereby independently stiffening the display tray and the hood,
25 respectively, and facilitate separation of the latter from the former without a need to tear through any other panel or flap other than the second and fourth side panels. The overall arrangement / configuration is thus one which does not interfere with the tearing away of the hood from the tray constituents of the container.

30 The first and second front flaps can be secured to the hood front panel and the fastening tabs can be secured to the second and fourth side panels to one side of the tearing lines either by gluing (preferred), stapling, stitching or less preferably,

taping. The same applies to securing of the rear side flaps and panels to each other. Whether the fastening tabs are secured to an outside face of the respectively adjoining side panels or the opposite face thereof which is within the enclosure defined by the container side panels, is a matter of aesthetics.

5 However, the most appropriate relative placement to each other will also be dictated by ease of automated folding and gluing / fastening of the tabs and panels to form the container.

10 In another embodiment, a pair of front flaps are integrally formed with the second and the fourth side panels, respectively, with respective score lines delineating the flap pairs from the respective side panels, the second and fourth side panels thus each have two front flaps, the two front flaps at each side panel devised and arranged such that these are connected to the side panel either side of the tear line at the respective side panel, wherein a first flap of the front flap pairs of both
15 the second and fourth side panels is secured to the hood front panel when the container is erected, and a second flap of the front flap pairs of both the second and fourth side panels is secured to the tray front panel.

20 Advantageously, the hood front panel of the container may incorporate one or more handle apertures, either by cutting out an oblong portion of board from it (stripped handhold), or by providing a partial tear or cut line to define a foldable handle tab that may be pushed into or prayed free from the container (non-stripped handhold). This will provide leverage in assisting a person in tearing-off the hood from the tray.

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In one embodiment, a free edge of at least one of the two front panels, in particular the tray front panel, may be cut to a desired contour to provide a display motive; the tray front panel can be furthermore provided with graphics commensurate with the products transported in the container and subsequently
30 displayed in the tray when so configured; however, a motive can also be provided on the hood front panel. The tray front panel can have a relatively smaller height than the hood front panel, primarily sized to provide a ledge, and is otherwise die cut to any shape or profile which in combination with applied surface graphics can

further enhance the display tray's aesthetics, support product branding message and be effective in preventing products from 'sliding' unintentionally past the tray front panel.

5 In another embodiment, which is aimed at providing a manually erectable SRP container, the tray front panel may be advantageously comprised of at least one fold-over panel portion and a front face panel portion separated by a double crease line. Advantageously, the fold over panel portion can also have a locking tab along its free terminal edge opposite the front face panel portion which, when
10 the fold-over panel portion is folded from a coplanar arrangement with the front face panel portion about the double crease line into a plane parallel configuration behind the front face panel portion, will resiliently engage into an associated locking slit formed at or close to the crease line extending between the tray front panel and the adjoining side panel.

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In the erected state of the container these two measures will increase stiffness of the tray part of the container, by providing a double thickness front panel, the locking tab also obviating a need to separately glue (or otherwise secure) the portions of the front flaps of the second and fourth side panels to the front panel,
20 as these flap portions can be entrained in the process of erecting the container, to locate between the two portions of the front panel when folded over.

A similar configuration may also be present at the hood front panel of the blank, if desired.

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In one embodiment, the tray and hood front panels are not secured to each other either directly or indirectly, so that the hood part can be removed from the display tray part without damaging the appearance of the display tray's outer front face, as the latter may serve to display information about the products contained in the
30 SRP.

The two front panels could also be configured such that they overlap at least partially when folded over to cover the open front of the container when in the

transport configuration or could be dimensioned to define a small gap between the front panels when folded and secured. The hood front panel may preferably be arranged overlapping the tray front panel, which given the two front panels will normally not be taped or otherwise secured to each other when in the transport configuration, may provide a lever facility in separating the hood from the tray parts of the container. In such embodiment, however, a small amount of light-tacking glue may be added to secure one top panel to the other, the glue being of such nature as be readily peelable from the tray front panel in the process of hood removal. Equally, it will be appreciated that given the hood part of the container is disposable, providing an adhesive tape band running across the hood front panel and the adjoining side panels to secure these panels to each other once folded, will not negatively affect the clean visual appearance of the front panel of the tray component of the container.

In another configuration, one or both of the tray and hood front panels may be provided with secondary fastening tabs at their width-ward ends and one of the front panels is configured to insert behind the other one of the front panels. No gluing or securing of the front panels to each other is then required at all, given these front panels will be held secure by the secondary fastening tabs that are in turn glued to the side panels which exhibit the tear lines.

Furthermore, in a preferred embodiment, at least one (die-) cut out or inwards foldable / pushable tab will be present on each of the two side panels which exhibit the tear line, preferably on that part of the side panel which will form part of the discardable hood. The cut out(s) can be located adjoining or traversing the tear line, in a preferred embodiment, and can have any contour as long as they allow insertion of at least one finger to pray-off the hood from the tray part of the container when desired to do so. The cut out(s) will provide a location where a person may more readily grab the container in seeking to cleanly tear off the hood from the tray part in transforming the container into the display stand / tray.

Noting that only two of the four quadrilateral side panels extend upright when the container is in its display orientation, and in particular where the container is

made from corrugated cardboard and the flutes of the cardboard side panels extend parallel to the base panel of the container, one embodiment has the tear line extend perpendicular to the flute direction.

- 5 The tear line may advantageously be devised to have a flat-S undulating configuration and thus cut across the parallel corrugations within the upright side panels, but without compromising structural integrity to an extent of substantially weakening the rigidity and crush-strength of those side panels.
- 10 The perforation lines or curves on two of the four side panels can be, by skilled selection and design, of any shape or combination of shapes to facilitate folding and glueing of the flat blank into the typical RSC format. The skilled selection also takes into account optimisation of transport and palletisation compression strength, minimisation of board material and ease of opening and achievement of
- 15 the SRP functionality at the retail -merchandising location.

The invention and additional features thereof will become clearer from the following description of preferred, non-limiting embodiments thereof provided with reference to the accompanying drawings.

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BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a plan view of a corrugated cardboard blank embodiment in accordance with a first aspect of the invention, for erecting a shelf ready packaging (SRP) container in accordance with a second aspect of the invention, in what in the art is termed a wraparound folding and fastening sequence;

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Figures 2a-2f illustrate a sequence of perspective views of how the SRP container is erected (formed and sealed) from the blank of fig.1 using wraparound folding techniques;

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Figures 3a-3c are comprised of a sequence of illustrations showing the container of figure 2 being converted from its transport configuration into its

display configuration in which the integral hood part of the container has been removed from an integral product display tray part of the container;

5 Figures 4a to 4g are comprised of a sequence of illustrations showing the blank of figure 1 partially pre-glued into a flat-pack configuration (fig. 4a), the flat-pack unfolded into an initial tubular configuration (fig. 4b) and the subsequent panel / flap folding sequence to obtain an open container for filling with product in a conventional top-loading orientation (fig. 4d) prior to the top flaps / panels being folded and attachment tabs glued to obtain a closed, transport ready container
10 (fig. 4g);

Figures 5a to 5e show five variants of the basic container blank of figure 1;

15 Figures 6a to 6l are comprised of a sequence of illustrations similar to figures 4a to 4g but showing the blank of figure 5b as it is folded (sequence 6a to 6f), loaded in 'bottoms-up' upright orientation through the open rear panels and flaps (fig. 6g) and secured for subsequent upright transportation (fig 6k) prior to placement into its product display orientation (fig. 6l); and

20 Figures 7a to 7e show front plan views of the tray front panel of containers erected using the blanks illustrated in figures 5a to 5e.

DESCRIPTION OF PREFERRED EMBODIMENTS

25 Referring first to figure 1, there is shown a corrugated cardboard blank 10, for the manufacture of a shelf ready packaging (SRP) container (see figure 2) using wrap-around erection techniques. The blank has been devised such as to enable the forming of a container that can be transported and then used in the same spatial orientation in which products received within the container are displayed in
30 the shelf-ready state, as can be seen in the sequence of figure 3.

Noting it is customary in the transport / shipping cardboard container (or case, box) manufacturing industry to refer to orientations of normal use of a container,

the terms upper or top, lower or bottom, front and rear (back) will be used as appropriate and for identifying relative placement / position of various panels and flaps defined by the cut and scored blank 10.

5 Exemplarily, the blank 10 is dimensioned to manufacture a relatively small, rectangular cuboid SRP container 100 having external dimensions of 265 x 186 x 176 mm, wherein as per standards, the first dimension is the length (l), which is always the longest side of the container that has a flap, the second dimension denotes the width (w) of a side that also has a flap but that is always the side
10 shorter than the length side, and the third dimension denotes the height (h); in the present embodiment the height coincides with the inner dimension of the container when in a transport orientation of the container, as per figures 2c and d. It should be noted that the transport orientation is in this case the same as the display orientation.

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Arrow A denotes the preferred longitudinal extension of the internal corrugation flutes of the corrugated cardboard material from which the blank is die-cut for subsequent erection of a wrap-around RPC. The material can be a single B-flute white and brown liner corrugated board with 400 grammage. Blank 10 in fig. 1 is
20 shown with the (white) face that will be the outside of the container and is scored and die-cut to define 15 panels, flaps and tabs. The flutes could, also be oriented perpendicular to arrow A in particular for RPC containers not intended for wrap-around container erection / filling procedures, where the transport orientation is one such as per figure 3, i.e. top loading orientation being 90 degrees rotated
25 from the display orientation shown in figure 2. That is, the top of the container while the filling orientation illustrated in figures 3a to g will become the front of the container (and its display tray part) in the display orientation of figure 2a to c..

Blank 10 comprises, commencing from a first edge E of the blank 10 in a first
30 direction parallel to flute orientation A, rectangular-quadrilateral first, second, third and fourth side panels 14, 16, 18, 20, delineated by appropriate crease or score lines s that allow controlled folding of panels relative to each other; the term score

line is used generally to denote a film hinge of the connected but foldable panels and flaps of blank 10.

5 A primary fastening tab 12 is shown downstream of fourth side panel 20 (i.e. present at the edge opposite where panel 20 joins with the third panel 18). The fastening tab 12 could instead be located upstream of first side panel 14 (i.e. present at the edge opposite where panel 14 joins with the second panel 16) as is illustrated in the blank embodiments illustrated in figures 5 a to e and briefly discussed below. A score /fold line delineates tab 12 from the adjoining side
10 panel.

Blank 10 further comprises a rectangular first front panel 22 and a first quadrilateral rear panel 24 respectively present on opposite front and rear edges of the first side panel 14 and delineated therefrom by a score line s. The first front
15 panel 22 and the first rear panel 24 will be referenced herein below also as hood front panel 22 and hood rear panel 24 for reasons noted below. Also, blank 10 has a second front panel 26 and a second quadrilateral rear panel 28 respectively present on opposite front and rear edges of the third side panel 18 and delineated therefrom by a respective score line s. Here again, the second front panel and
20 second rear panel will also be referenced as tray front panel 26 and tray rear panel 28 for reasons that will be come clearer hereinafter.

Blank 10 further comprises a first and a second rear flap 30, 32, preferably quadrilateral, respectively present at a rear edge of the second and fourth side
25 panels 16 and 20, respectively, and delineated therefrom by a score line s. The first and second rear panels 24, 28 and first and second rear flaps 30, 32 can be advantageously dimensioned such that when folded perpendicular to the adjoining side panels 14 to 20, they create a closed rear wall of the container 100 as shown in figures 2 and 4. As is also apparent from figure 1, rear first and
30 second flaps 30, 32 have beveled (cut-off) free corners so that, strictly speaking, the flaps are not quadrilateral but hexagonal in plan view.

Blank 10 also has a first and a second front flap 33, 34 adjacent the front edges of the second and fourth side panels 16, 20, respectively, integrally formed with side panels 16, 20 but delineated therefrom by respective score lines *s*. The terminal corners of the front flaps 33, 34 are not pointy (90 degree corners) but again shaped to facilitate folding of the flaps without interfering with the front panels 22, 26, i.e. beveled or rounded.

Finally, two small, essentially quadrilateral fastening tabs 38, 40 are present in continuation of each of the opposite edges (as viewed along the first direction) of the second front panel 26, with respective score lines *s* delineating the tabs 38, 40 from second front panel 26. It will be noted that fastening tabs 38, 40 are respectively created by having a c-shaped, full-cut or intermittent perforation tear lines 39, 41 made in the first and second flaps 36, 34, respectively. Alternatively, the c-channels are formed by puncturing the cardboard and leaving a number of severable nicks (small cardboard sections typically 1 to 4 mm wide) joining the fastening tabs 38, 40 to both the first and second flaps and the second and fourth side panels 16, 20. These nicks are broken when the flaps / tabs are bent into their respectively required position during container erection. In this manner, it can be said that fastening tabs 38, 40 'nestle' in shape-congruent 'cut-outs' created in the edges of the first and a second front flaps 33, 34 facing the second front panel 26.

As indicated in figure 1, a first tear line 42 extends from a terminal front edge of the second side panel 16 (beginning at the crease line *s* that delineates side panel 16 from front flap 33 and the lower corner of cut line 39) across the entire length of second side panel 16, and past the bottom score line *s* into the adjoining first rear flap 30, as indicated at 43, to end at a terminal edge of the first rear flap 30. A second tear line 44 extends from a terminal front edge of the fourth side panel 20 (beginning at the crease line *s* that delineates side panel 20 from front flap 34 and the lower corner of cut line 41) across the entire fourth side panel 20, and past the bottom score line *s* into the adjoining second bottom flap 32, as indicated at 45, to end at a terminal edge of the second bottom flap 32.

In the embodiment of figure 1, the tear lines 42, 44 have an approximately flat S-shaped line contour within side panels 16, 20 and then have a straight line contour along sections 43, 45, notionally dividing rear flaps 30 and 32 into two equal-sized partial flaps. However, rear flaps 30 and 32 could each also be
5 comprised of separate 1/2 flap portions, fully separated at tear line sections 43 and 45 rather than being readied for separation. However, such arrangement is not preferred as despite the presence of a tear line at 43, 45, the rear flaps together with the rear panels 24, 28 assist in providing a barrier wall for products received in the container formed from blank 10.

10 Tear lines 42, 44 are comprised of closely intermittent perforations extending through the blank thickness, spaced and manufactured to allow as clean as possible separation of the side panels 16, 20 along the tear line contour, without tearing into the adjoining zones of the side panels 16, 20, yet not substantially
15 weakening the integrity of the flutes of the corrugated blank 10.

As is evident from figure 1, the tear lines 42, 44 extending across the face of the second and fourth side panels 16 and 20 do not bisect these panels into equal sized areas and may indeed have a different contour and also comprise portions
20 completely cut through the blank just before the tear line sections 43 and 45 dividing the rear flaps 30, 312 at the second and fourth side panels 16 and 20. Indeed, the tear lines 42 and 44 may also comprise a section near the upper edge of side panels 16 and 20 that is fully severed. These fully cut through parts of tear lines 42 and 44 can assist with the initiation of separating the hood from
25 the display tray part of the container as explained below.

It will be further noted that along tear lines 42 and 44, the second and fourth side panels 16 and 20 include two through holes 46 and 47, respectively, in the blank 10, either adjoining the tear line 42, 44, as illustrated, or indeed traversing these.
30 The shape / contour and size should be chosen to allow a person to insert two to three fingers, handle-like, to assist severing the tear lines 42, 44 in the process of converting the container 100 into a display tray 110, as explained below.

In using blank 10 to manufacture a transport container for separately packaged items / products, the blank could be delivered in an initial, partially pre-folded flat pack configuration, for further handling, as is illustrated in the sequence of figures 4a to 4g. Figure 4a illustrates the flat-pack, in partially pre-glued configuration
5 wherein primary fastening tab 12 is already secured to the first side panel 14 by gluing the face of tab 12 that is visible in figure 1 to the face that is not visible of side wall panel 14, whereby first side panel 14 is first folded along score line s to come to lie parallel onto of second side panel 16, whereupon the fourth side panel 20 is folded over at score line s to come to lie on top of third side panel 18,
10 thereby allowing fastening tab 12 to be pressed and glued onto the reverse side of first side panel 14. To erect the container and fill it, the flat blank needs to be 'unfolded' into a quadrilateral 'tube' (fig. 4b), the rear flaps and panels 24, 26, 30 and 32 folded inwards and appropriately secured to each other using double sided tape or glue (or another fastening way) (fig. 4c and 4d), whereupon the
15 partially erected container can then be filled from the open top end. The front flaps 33, 34 are then folded down (fig. 4e) and the front panels 22, 26 folded down after glue has been applied on those areas the front flaps 33, 34 that will come into contact with the cover panels 22, 26 (fig. 4f) after which the secondary attachment tabs 38, 40 are folded against the side panels 16 not shown) and 20
20 after glue has been applied onto the regions that will be covered by the tabs 38, 40, as per fig 4g.

Figure 4 illustrates one way in which the container may be erected and filled with the items to be transported and displayed at a point of sale location. Noting that
25 the flutes of the cardboard extend (as per figure 1) parallel to arrow A, it will be noted that in the orientation of the container illustrated in figures 4a to g, the flutes will run parallel to the ground on which the container is standing for filling. This is suboptimal for transportation purposes, in which containers are stacked one on top of the other. To increase crush-strength (ie load carrying capacity under
30 compressive loads), it is beneficial for these containers to be flipped to come to lay with panel 18 on the floor, as this will in turn mean that the flute direction in side panels 20 and 16 will be oriented vertically, thus increasing crush-resistance when containers are stapled on top of each other.

However, as noted above, the blank 10 has been specifically configured to provide a wrap around (WAR) style container which is erected out of its flat blank configuration after products are placed on one of the side panels of the blank
5 which does not exhibit the tear lines, preferably hereby on the third side panel 18 (which will provide the base of the product display tray 110 as per fig. 2c), and then all relevant folding and fastening operations in relation to the various panels and flaps and tabs are performed to obtain a transport-ready container 100.

10 Figures 2a to 2f illustrate the folding / erecting sequence. The WAR version blank 10 is supplied flat to customers. Custom made equipment at the end user is then preferably used to fold and seal the blank, although manual container folding and gluing can also be accommodated.

15 Individual products (such as canned food stuff, soft drink bottles, pre-packaged meal boxes or pouches, etc) are placed upright (with their labels facing to the front) onto third side panel 18 either before the folding sequence is initiated (fig. 2a) or when the blank 10 has already been partially folded into a U-shaped state, as shown in fig. 2b, in which the first, second and fourth side panels 14, 16 and
20 extend perpendicular to the base (third) side panel 18.

Then, the rear flaps 30, 32 are folded to partially close the otherwise open rear, and the front flaps 33, 34 are folded to partially close the front opening, as per fig. 2c. Subsequently (fig. 2d), the bottom front panel is folded upwards and the
25 primary fastening tab 12 is folded downwards. The front fastening tabs 38 and 40 could already at this stage be folded to come to lie against upright second and fourth side panels 16 and 20 but this (and the associated gluing / securing of the tabs) can also be performed at a later stage. Equally, rear bottom panel 28 could also be folded upwards and secured to rear flaps 30, 32, or performed at a later
30 stage.

Figure 2e then illustrates the folding down of the first side panel 14 which secures to primary fastening tab 12 using glue or double sided adhesive tape. In a final

stage, fig. 2f, the top front panel 22 is folded down and glued to the front flaps 33, 34 either side of it, and the rear top panel 24 is secured to the rear flaps 30, 32. It should be noted here that gluing of the rear top panel 24 to rear flaps 30, 32 is only effected on one side of the tear line sections 43 and 45 and gluing of the bottom rear panel 28 to the rear flaps 30, 32 is only effected on the other side of the tear line sections 43, 45, such that when the container is separated into its product display and discardable hood sections, as illustrated in the sequence of figures 3a to 3c, no ripping apart of the rear panels / flaps 24, 28, 30, 32, takes place other than along the tear line sections 43, 45.

At the end, a sealed and fully loaded 'wrap around' container (or pack) is obtained, as per figure 2f. It will hereby have been noted that filling of the container takes place in the display orientation of the container 100 wherein the container remains in the transport orientation, as compared to the upright filling procedure illustrated in figure 4c, wherein in using the flat-packed, pre-glued variant, the end user will have a machine that opens the flat pack into a top and bottom open quadrilateral tube, and then folds and seals the bottom flaps, thereby providing a case with its bottom sealed and the top flaps open ready for product loading into the box.

The skilled person will appreciate that erecting the container can be done manually, semi-automated or in fully automated ways, using appropriate machinery.

A plurality of such containers 100 can then be stacked on top of one another in the transport orientation illustrated in fig. 2f, once these have been filled, noting that the flute direction of the side panels 16 and 20 extends vertically (upright) and in the side panels 18 and 20 horizontally. The stock material for the blank 10 must be chosen to allow a plurality of stacks of containers 100 to be palletized for bulk shipment without being crushed.

Once delivered to a point-of-sale location, the container 100 will then be sat on a shelf (or the like) such that the front panels 22, 26 face towards consumers,

noting that the container 100 will be placed with its third side panel 18 onto the shelf; consequently, the front panels 22, 26 represent the consumer-facing front face of the container 100 when in a presentation orientation as seen in fig 2f.

- 5 Figures 3a to 3c illustrate the 'transformation' of the container 100 into its display configuration, whereby fig 3a shows the container 100 in the orientation it was transported and then placed onto a shelf (or the like), the third side panel 18 providing the stand surface in both cases. Figure 3b illustrates how the container 100 is separated into discrete, separate parts. One part is the presentation and display tray 110, comprised of the second front panel 26 (therefore called tray front panel), third side panel 18, second rear panel 28 (therefore also called tray rear panel) and the two halves of the separated second and fourth side panels 16t and 20t with the parts of the rear flaps 30t, 32t attached to these and torn away from the other parts of the rear flaps (not shown) at the tear line sections 10 15 43, 45. It can be seen from fig. 3c that the secondary fastening tabs 40 (38 not shown) are glued only to the parts 20t (and 16t; not shown) of the side panels 16, 20, and therefore do not interfere with the separation process. What is more, the additional fastening tabs 38, 40 stiffen the lower front panel 26 against flexing.
- 20 The other part is the discardable hood 120 (fig. 3b), which is comprised of the first top panel 22 (therefore also called hood front panel), first rear panel 24 (therefore also called hood rear panel), first side panel 14 and half the second and fourth side panels 16u and 20u, separated at the severance or tear lines 42 and 44, as well as the front flaps 33, 34 and the rear flap portions 30, 32 separated at the 25 tear line sections 43 and 45.

Figures 5a to 5e show variants of the basic container blank of figure 1. Given the commonalities, in the following only the differences in configuration and container erection and filling methodologies between the various embodiments will be 30 described, and reference numbers are the same for same components and letters a, b, c etc are used to differentiate between different embodiments of the same functional element / feature referenced by the same number.

One important distinguishing feature is that the blank 10 of figures 5a to 5e is devised to provide what herein is termed a fold-over tray front panel with self-locking mechanism to not only stiffen the front part of the tray part, but also allow the dispensation of glue or tape to secure the tray front panel in its vertically
5 extending orientation when in the display configuration. Less relevant but equally noticeable, the primary gluing tab 12 is present at the edge of the first panel 14 rather than the fourth panel as in the blank embodiment of figure 1.

Equally, it will be noted that in the blank embodiments of figures 5a to 5e, the first
10 front panel 22 at the first side panel will provide the tray front panel instead of the hood front panel as per the earlier blank embodiment of figure 1, and in turn the second front panel 26 at the third side panel 18 will provide the front hood panel after the container has been erected as per the sequence of figure 6.

15 The first front panel 22 is comprised of two portions 22a and 22b which are separated in direction A by two partial double score lines ss running parallel with score line s between the front face front panel portion 22a and the fold-over front panel portion 22b either side of a curved cut line 22e that separates the two
20 portions 22a and 22b in the center of the front panel 22. A locking tab 22c is formed at the terminal free edge of the fold-over portion 22b which locates about centrally of panel 22 and which in a position in which the fold-over panel portion 22b is folded back along double score line ss to come to lie plane-parallel behind front face panel portion 22a, when the latter is folded into an orientation
25 perpendicular to its adjoining side panel 24, will be received and locate into locking through-slot 22d located centrally within score line s at which side panel 14 and front panel 22 are joined. The double score line ss effectively provides a double hinge film allowing portions 22a and 22b to be brought into controlled parallel orientation with one another when folded over, maintaining a small
30 distance between them, about or slightly smaller than the panel thickness. When the tab portion 22c locates in the slot 22d the 'double' front panel 22 will remain in an orientation perpendicular to the neighboring side panel 14 due to the resiliently deformable nature of the cardboard.

Also in variation of the blank embodiment of figure 1, the single front flaps 33 and 34 at the second and fourth side panels 16 and 20, are respectively replaced with a pair of front flaps 33a, 33b and 34a and 34b, respectively, identical in plan configuration and sequence along direction A. Front flaps 33a and 34a are
5 shaped such that they can locate within the small gap between the front panel portions 22a and 22b when flaps 33a, 33b, 34a and 34b as well as front panel 22 are folded perpendicularly to their respectively adjoining side panels 16, 20 and 14 and side panels 16 and 20 are themselves folded to extend perpendicular to the first side panel 14 in the process of erecting the container. In the process,
10 front flap portions 33b and 34b can be secured, if desired, on either side to the hood front panel 26 when these are folded over to extend perpendicular to their respective adjoining side panels 16, 18 and 10.

Another variation in comparison to the blank for figure 1, is that the second front
15 panel 26, which provides the hood front panel, can have at its score line to the neighboring third side panel 18, with a semicircular cutline 48 to form a frangible tab that can be bent into the container when it is desired to separate the hood part from the tray part as was previously described with reference to figure 2a to 2c. Equally, instead of having two finger holes 46 and 47 along the separation (ie
20 tear) lines 42 and 44 in the second and fourth side panels 16 and 20, a single such handle means is provided at each side panel 16 and 20 about midway of the tear lines 42 and 44.

Finally, it will also be noted that the rear panel 28 adjoining the third side panel 18
25 has a tear line 50 running parallel to the score line s between the panels 18 and 28, and another semicircular cutline 49 to form a frangible tab that can be bent into the container when it is desired to separate the hood part from the tray part. Tear line 50 will terminate about the same location as the end of the portions 43 and 45 of the main two tear lines 42, 44 in the second and fourth side panels 16
30 and 20 such that in embodiments where the rear panel 28 is glued along its entire width (perpendicular to direction A) to the adjoining bent-over rear flaps 30 and 32 of side panels 16 and 20, it can be separated along the tear line 50 without ripping.

Before turning to figure 6 to describe the container erection and filling sequence, reference is made to the blank embodiments of figures 5b to 5e. It will be noted that the blank 10b of figure 5b is identical to the blank 10a of fig. 5a bar for the second front panel 26a which in plan view rather than being a regular trapezoid, is substantially rectangular-quadrilateral, with a centrally located, shallow-semicircular grip indentation 48b and a circular through hole 48a sized to allow a person to stick two or three fingers into the panel to assist in separating the hood part from the tray part of the container.

In the embodiments of figures 5c and 5d, the bendable two-part first front panel 22 that provides the tray front panel is shaped differently in plan view to the front panel of the embodiment of figures 1 and 5a / 5b, as is the case with the pair of front flaps 33c/33d, 34c/34d, 33e/33d and 34c/34e at the second and fourth side panels 16 and 20, respectively, noting also that the front panels 26b and 26c of the embodiments of figure 5c and 5d are also different in plan view, one being quadrilateral with sharp corners and on having rounded corners. In essence, whilst providing the same functionality of a bendable, double thickness tray front panel 22 as in the embodiments of figures 5a and 5b, the visual appearance of the front panel of the tray, once the fold-over front panel portion 22b has been folded over to locate plane-parallel behind the front face front panel portion 22a, will be different as a function of the specifically chosen contours of the flaps, tabs and front panels. This is exemplarily illustrated in the front elevations of figure 7a to 7d which show the front panels 22 before and after being folded along the double film hinge ss that is present between the two front panel portions 22a and 22b. By way of example, if one compares the location, arrangement and contour of the double score line ss and cut line(s) 22e present between the front panel portions 22ab and 22bb of the embodiment of figure 5d with the stepped appearance of the two portions 22aa and 22ba of the front panel 22 illustrated in figure 5c, as well as the differently contoured front flaps 33c/34d of the blank 10c and front flaps 33e/34e of the blank 10d, one will appreciate that once folded over, as shown in the 3rd and 4th illustration from the left edge of fig. 7, differently shaped tray front panels are achieved.

Turning then to the container erection sequence comprised in figures 6a to 6l, the blank (as per any one of embodiments of figures 5a to 5e) can be delivered as a 'flat pack' or sleeve, wherein the first and second side panels are co-planar and the third and fourth panels are bent over to be plane parallel on top of the first two panels, and the primary gluing tab is pre-glued to the opposing side panel which does not have the tab. (Fig. 6a). The pre-glued assembly is deployed into the rectangular-tubular configuration illustrated in fig. 6b with the front panels and flaps facing in a forward direction and the 'opened' sleeve resting on the first side panel. Next, as shown in fig. 6c, the pair of front flaps present at each of the second and fourth side panels, are bent inwards to partially close the front open end and subsequently the tray front panel (ie the one closest to the support surface) is bent to extend perpendicular to the first side panel to which it is connected (fig. 6d). Next, the fold-over front panel portion (identified as 'lower front lip' in figure 6d) is bent backwards into the open container mouth to overlay the front facing front panel portion as well as the side flap portions of the side panels, and the locking tab is inserted into the locking slot as previously described with reference to fig. 5a, to reach the configuration of fig. 6e. It will be noted that no additional glue or tape is required for the so-created front tray double-walled panel to maintain its position entrapping the front flaps of the side panels and effectively locking this position, by virtue of the locking tab being received in the locking slot.

Subsequently, the other front panel (ie the hood front panel contiguous with the first side panel) is then rotated downwards to close the open front mouth of the container where it can be secured using preferably a simple adhesive tape that extends over the front face and secures to the second and fourth side panels above the respective tear lines present in those side panels (fig. 6f).

The partially closed container is then rotated and placed with the closed front face onto the supporting table / ground, effectively bottoms-up, and the container is then ready for filling with products from the open rear (which in the orientation of fig. 6g is the open top of the container). The rear side flaps are then folded to

extend perpendicular to the adjoining second and fourth side panels to which they remain connected (fig. 6h) and subsequently the rear panels connected to the first and third side panels are closed to lie on top of the rear flaps. Because the container is intended to be shipped / transported in the illustrated upright orientation (rather than the shelf orientation shown in figure 6l), it is only necessary to secure one of the rear panels, in this case the rear panel of the tray part of the container, using a simple adhesive tape stripe spanning the rear side and fixing to the second and fourth side panels below the tear lines, see fig. 6k. Alternatively, two parallel adhesive tape strips can be used, one locating above and one below the tearing lines in the second and fourth side panels.

Finally, when intended to be used as a SRP tray, the upright oriented container is flipped to come to rest with its first side panel on the support surface (such as being placed on a product display shelf) whereupon the hood part can then be removed in the manner as described with reference to figure 2a to 2c.

From the foregoing it will be appreciated that features described and/or illustrated with reference to one of the container blank embodiments is exchangeable for functionally equivalent features described and/or illustrated with reference to other embodiments, where such do not prima facie exclude each other as incompatible.

In this specification, the terms comprising and comprises are used in their inclusive meaning, ie in the sense of 'having' or 'including'.

Reference symbols as used in the Drawings

10 Blank	33 first front flap
12 primary fastening tab	34 second front flap
14 first side panel	38 fastening tab
16 second side panel	39 c-cut line
18 third side panel	40 fastening tab
20 fourth side panel	41 c-cut line
22 first front panel	42 tear line in 16
24 first rear panel	43 tear line section in 30
26 second front panel	44 tear line in 20
28 second rear panel	45 tear line section in 32
30 first rear flap	46 cut outs in 16
32 second rear flap	47 cut outs in 20
A First Direction	
S score or fold line between panels, and panels and flaps	
SS double score line of double film hinge	

CLAIMS:

1. A wraparound foldable blank, preferably a corrugated cardboard blank, for the manufacture of a shelf ready packaging (SRP) container convertible from a transport configuration into a display configuration in which the container has been separated into a display tray and a discardable hood, the blank scored and cut to comprise, commencing from a first edge of the blank in a first direction:
- 5 - quadrilateral-rectangular first, second, third and fourth side panels respectively delineated by score lines between adjacent ones of the side panels;
 - 10 - a primary fastening tab present either along an edge of the first side panel or the fourth panel not adjoining another side panel and securable to the fourth side panel or the first side panel, as the case may be, when in the transport and display configurations;
 - 15 - a tray front panel and a tray rear panel respectively present on opposite front and rear edges of either the first or the third side panel and delineated therefrom by a respective score line;
 - 20 - a hood front panel and a hood rear panel respectively present on opposite front and rear edges of the third side panel where the tray front and rear panels are present at the first side panel and otherwise at the first side panel where the tray front and rear panels are present at the third side panel, as the case may be, and delineated therefrom by a respective score line;
 - 25 - first and second rear flaps respectively present at a rear edge of the second and fourth side panels and delineated therefrom by a score line, the first and second rear flaps both preferably securable to the first and second bottom panels when in the transport configuration;
 - 30 - a first tear line extending from a terminal front edge of the second side panel across the second side panel and preferably past the score line into the adjoining first rear flap to end at a terminal edge of the first rear flap; and
 - a second tear line extending from a terminal front edge of the fourth side panel across the fourth side panel and preferably past the score line into the adjoining second rear flap to end at a terminal edge of the second rear flap..

2. A shelf ready packaging (SRP) container, comprised of the single board blank according to claim 1 folded into a rectangular cuboid, the container being convertible from a transport configuration into a display configuration in which the container has been separated at the tear lines in the second and fourth side panels into a display tray and a discardable hood, the container in the display configuration having (i) a rear wall comprising the rear tray and hood panels and the two rear flaps appropriately secured, (ii) two upright side walls comprised of the second and fourth quadrilateral side panels, (iii) a bottom wall comprised of the first or the third quadrilateral side panel, as the case may be, (iv) a top wall comprised of the third or the first quadrilateral side panel, as the case may be, and (v) a front comprised of the tray and hood front panels, wherein the quadrilateral side panels together define a rectangular cross-sectioned enclosure with a rear opening covered by the rear wall and with a front opening at least partially covered by the tray and hood front panels, the tray and hood front panels being respectively secured to portions of the second and fourth side walls either side of the tear line, and wherein the second and fourth side panels and associated first and second rear flaps that respectively comprise the tear lines can be separated along the tear lines into the two container parts thereby transforming the container into the display tray, whereby the tray front panel provides an upright extending front and the tray rear panel provides an upright rear of the tray, the discardable hood comprises the hood front panel and the hood rear panel.

3. The blank or SRP container of claim 1 or 2, wherein the carboard blank has flutes extending in the first direction.

4. The blank or SRP container of claim 1 or 2, wherein the carboard blank has flutes extending perpendicular to the first direction.

5. The blank or SRP container of any one of claims 1 to 4, wherein the tear lines comprise intermittent perforations extending through the blank.

6. The blank or SRP container of any one of claims 1 to 4, wherein the tear lines comprise portions completely cut through the blank and portions with intermittent perforations extending through the blank

5 7. The blank or SRP container of any one of claim 1 to 6, wherein the tear lines in the second and fourth side panels have a flat-S undulating configuration.

8. The blank or SRP container of any one of claims 1 to 7, wherein the blank further comprises a first front flap delineated by a score line from the second side panel and a second front flap delineated by a score line from the fourth side panel, wherein when the blank is erected into the container transport
10 configuration the first and second front flaps are both secured to the tray front panel.

9. The blank or SRP container of claim 8, wherein the blank further comprises two additional fastening tabs present at the tray front panel on either side thereof, delineated therefrom by respective score lines and locating in
15 shape-congruent cut-outs in the first and second front flaps, respectively, wherein when the blank is erected into the container transport configuration the additional fastening tabs are secured to one side of the tear line of the second and fourth side panels, respectively.

10. The blank or SRP container of any one of claim 1 to 7, wherein the blank
20 further comprises a pair of front flaps integrally formed with the second and the fourth side panels, respectively, with respective score lines delineating the flap pairs from the respective side panels, the pair of front flaps at each side panel devised and arranged such that these are connected to the side panel either side of the tear line at the respective side panel, wherein a first flap of the front flap
25 pairs of both the second and fourth side panels is secured to the hood front panel when the container is erected, and a second flap of the front flap pairs of both the second and fourth side panels is secured to the tray front panel.

11. The SRP container of claim 1 or 9, wherein the primary fastening tab and the two additional fastening tabs, where present, are secured to respective ones of the side panels with which they cooperate by one of gluing, stapling, stitching and taping.

5 12. The blank or SRP container of any one of claim 1 to 11, wherein a free edge of one or both of the tray and hood front panels, in particular the tray front panel, is die-cut to a desired contour to provide a display motive.

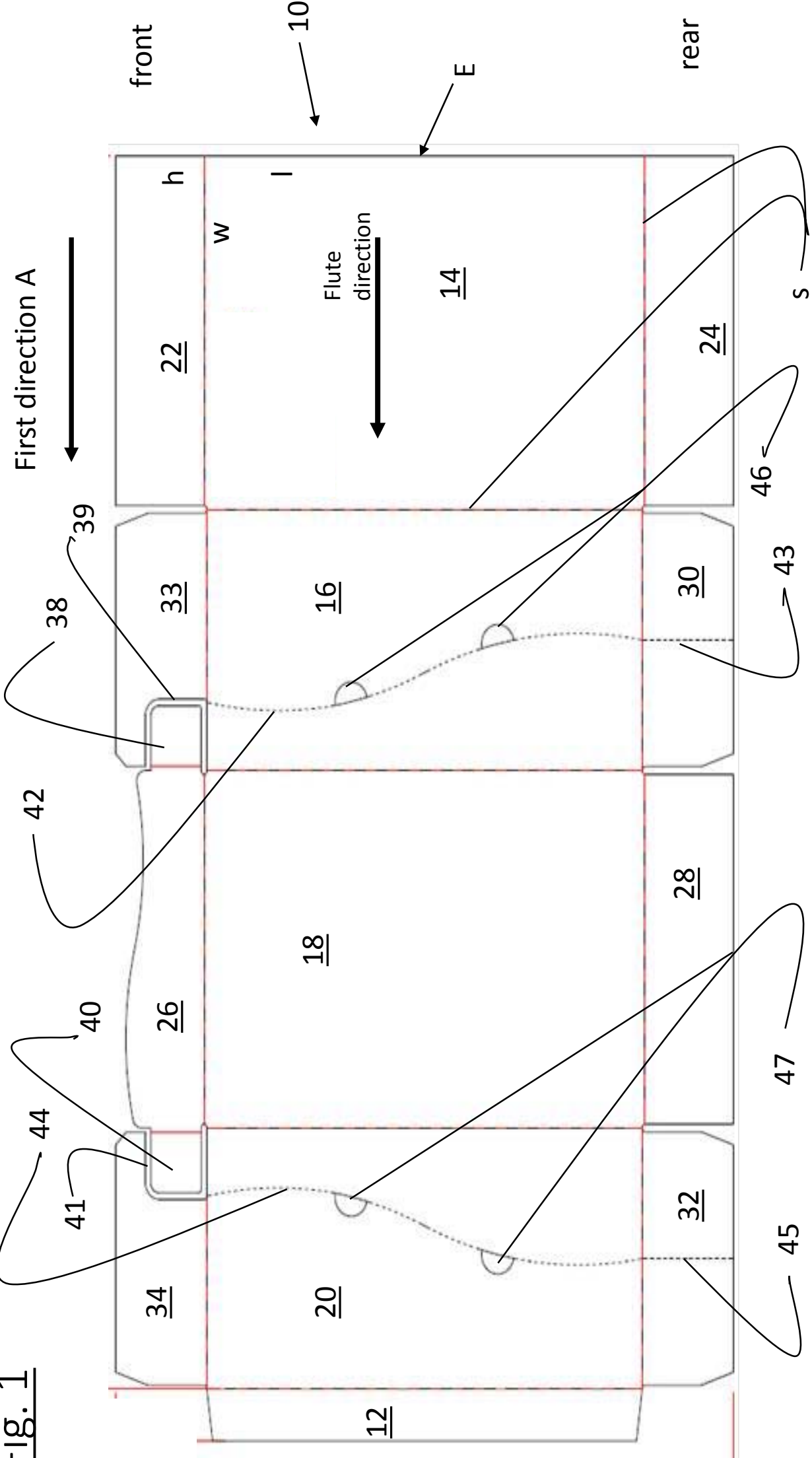
10 13. The blank or SRP container of any one of claim 1 to 12, wherein the tray front panel is comprised of a fold-over panel portion and a front face panel portion separated by a double crease line, the fold over panel portion having a locking tab along its free terminal edge opposite the front face panel portion which, when the fold-over panel portion is folded from a coplanar arrangement with the front face panel portion about the double crease line into a plane parallel configuration behind the front face panel portion, resiliently engages into an associated locking
15 slit formed at or close to the crease line extending between the tray front panel and the adjoining side panel.

14. The blank or SRP container of claim 13 when dependent on claim 10, wherein one of the pair of front flaps integrally formed with the second and the fourth side panels, respectively, when folded, are entrained and locate between
20 the fold-over panel portion and the front face panel portion of the tray front panel when folded over each other.

15. The blank or SRP container of any one of claim 1 to 14, wherein the hood rear panel is secured to the first and second rear flaps, when in the transport configuration of the container, on one side only of the tear line sections present in
25 the first and second rear flaps, and wherein the tray rear panel is secured to the first and second rear flaps, when in the transport configuration of the container, on another, opposite side only of the tear line sections present in the first and second rear flaps.

16. The blank or SRP container of any one of claim 1 to 15, wherein the hood rear panel has a tear line across a width of the panel, preferably parallel the folding line which connects the hood rear panel to its adjoining side panel.
17. The blank or SRP container of any one of claim 1 to 16, wherein at least
5 one cut out or inwards foldable / pushable tab is present in each of the two side side panels which exhibit the tear lines and are at least partially bordered by the tear lines.
18. The blank or SRP container of any one of claim 1 to 17, wherein the tray and hood front panels are not secured to each other either directly or indirectly.
- 10 19. The blank or SRP container of any one of claim 1 to 18, wherein the tray and the hood front panels are configured such that they overlap at least partially when folded over to cover the open front of the container when in the transport configuration, or wherein the tray and the hood front panels are dimensioned to define a small gap between the front panels when folded and secured.
- 15 20. The blank or SRP container of any one of claim 1 to 19, wherein one or both of the tray and hood front panels is provided with secondary fastening tabs at their width-ward ends and one of the front panels is configured to insert behind the other one of the front panels.

Fig. 1



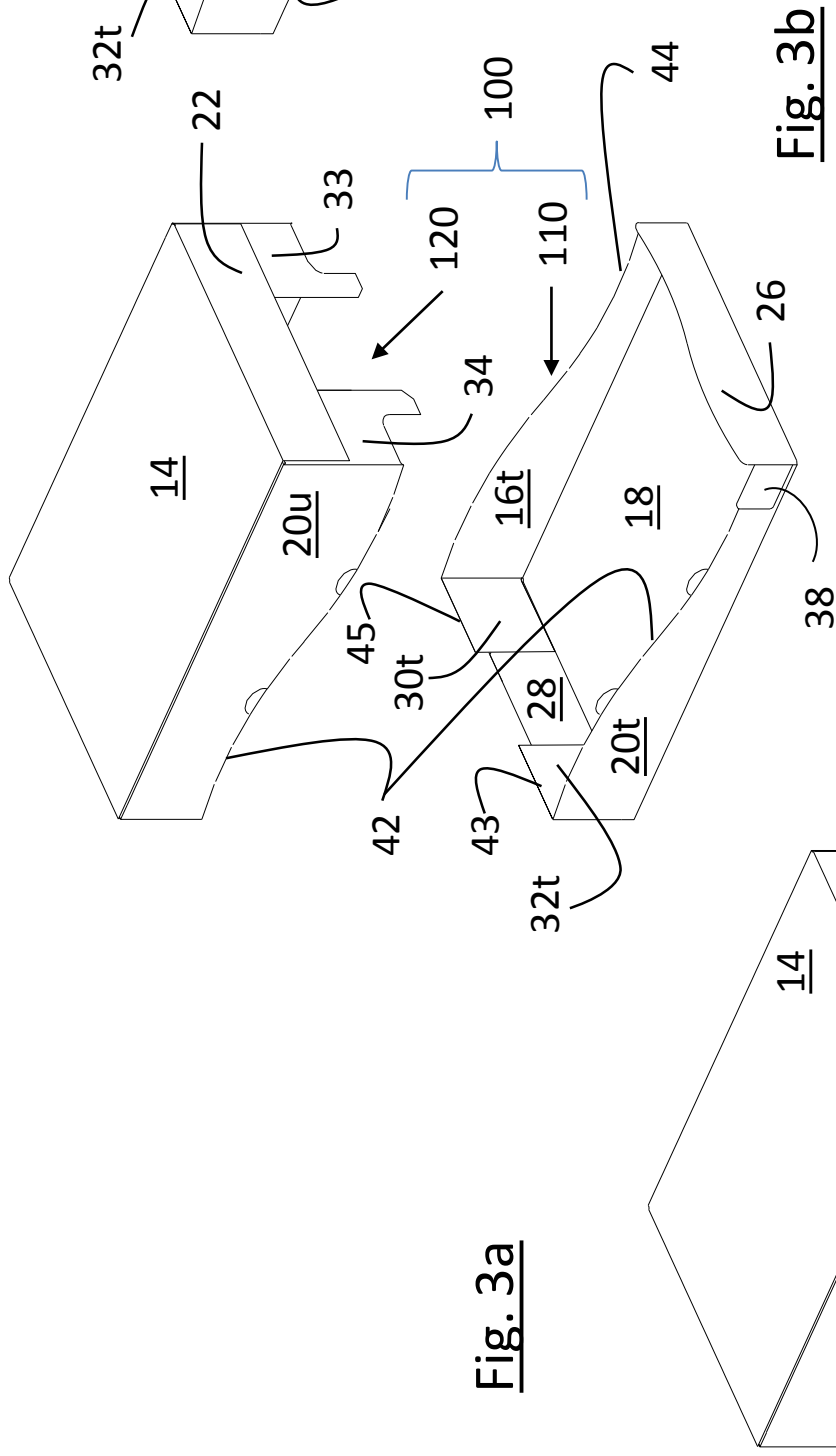
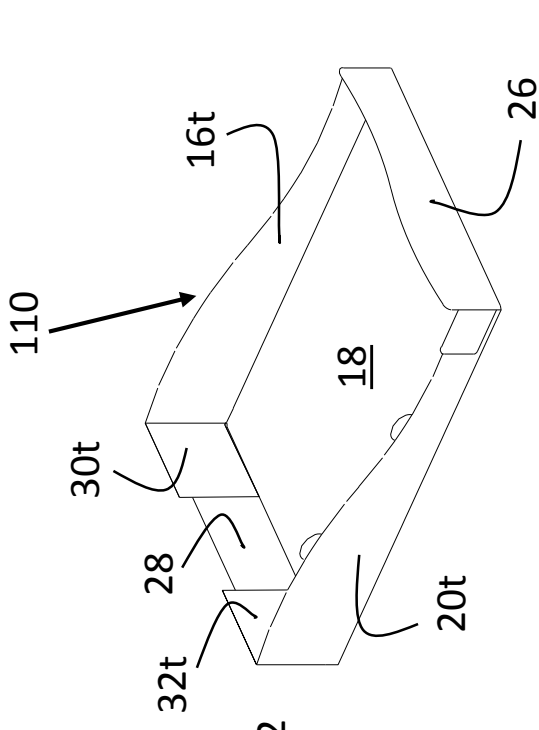


Fig. 3a

Transport and/or container configuration



Display tray configuration

Fig. 3c

Hood part separated from display tray

Fig. 3b

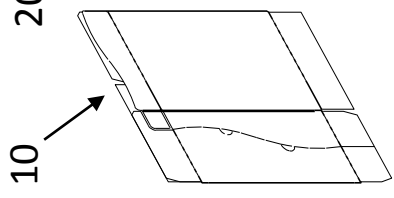
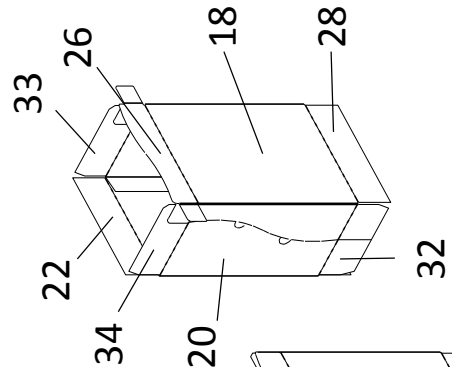
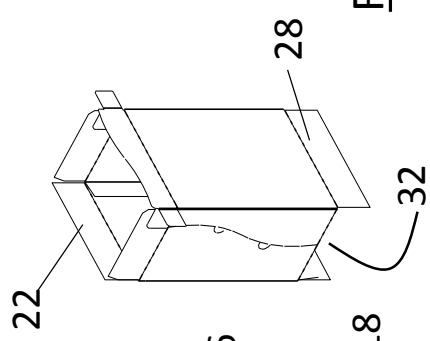
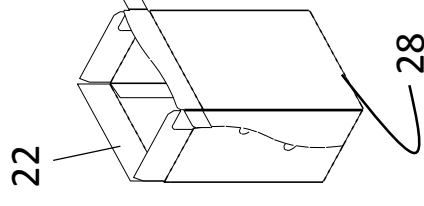
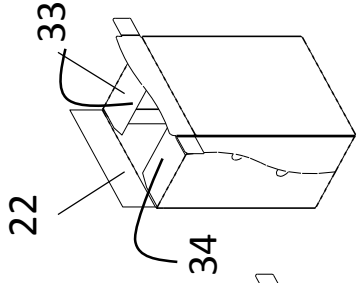
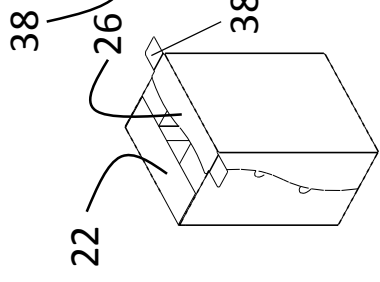
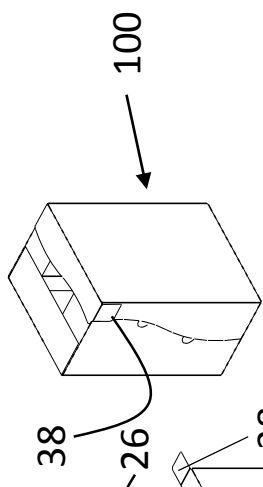


Fig. 4g

Fig. 4f

Fig. 4e

Fig. 4d

Fig. 4c

Fig. 4b

Fig. 4a

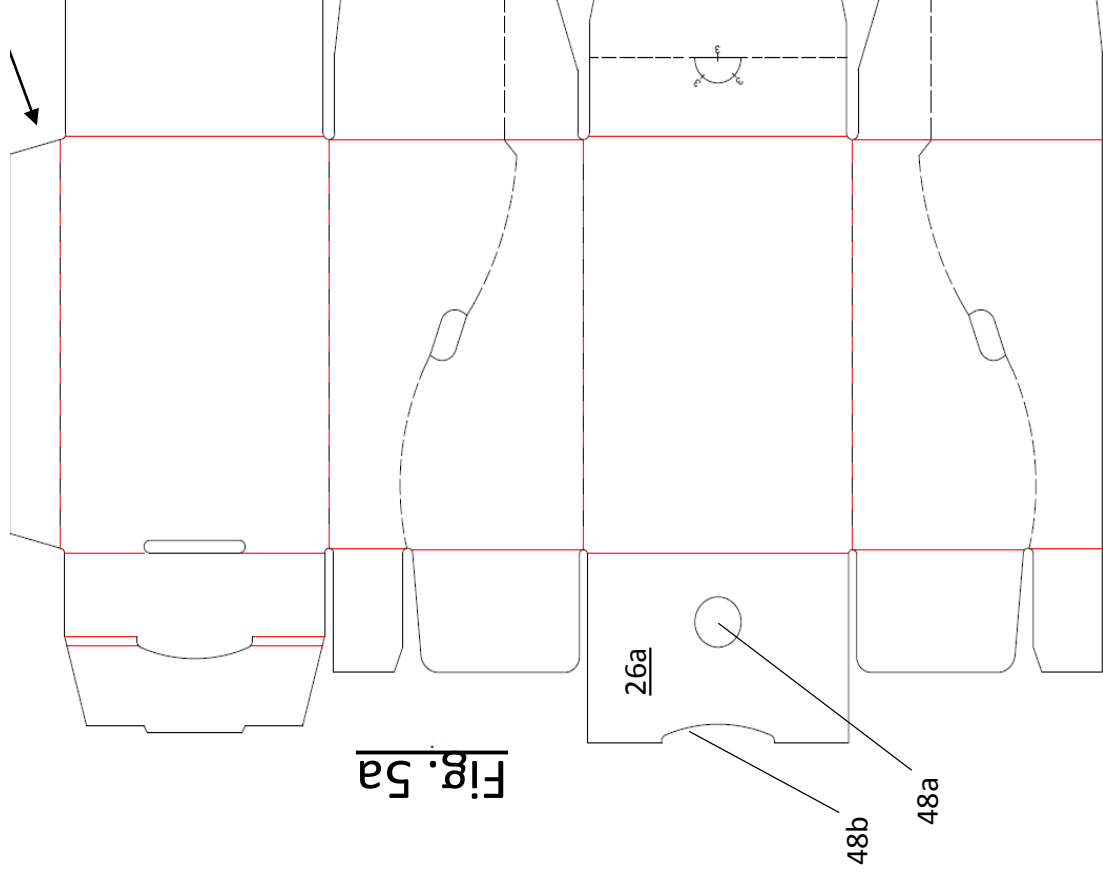
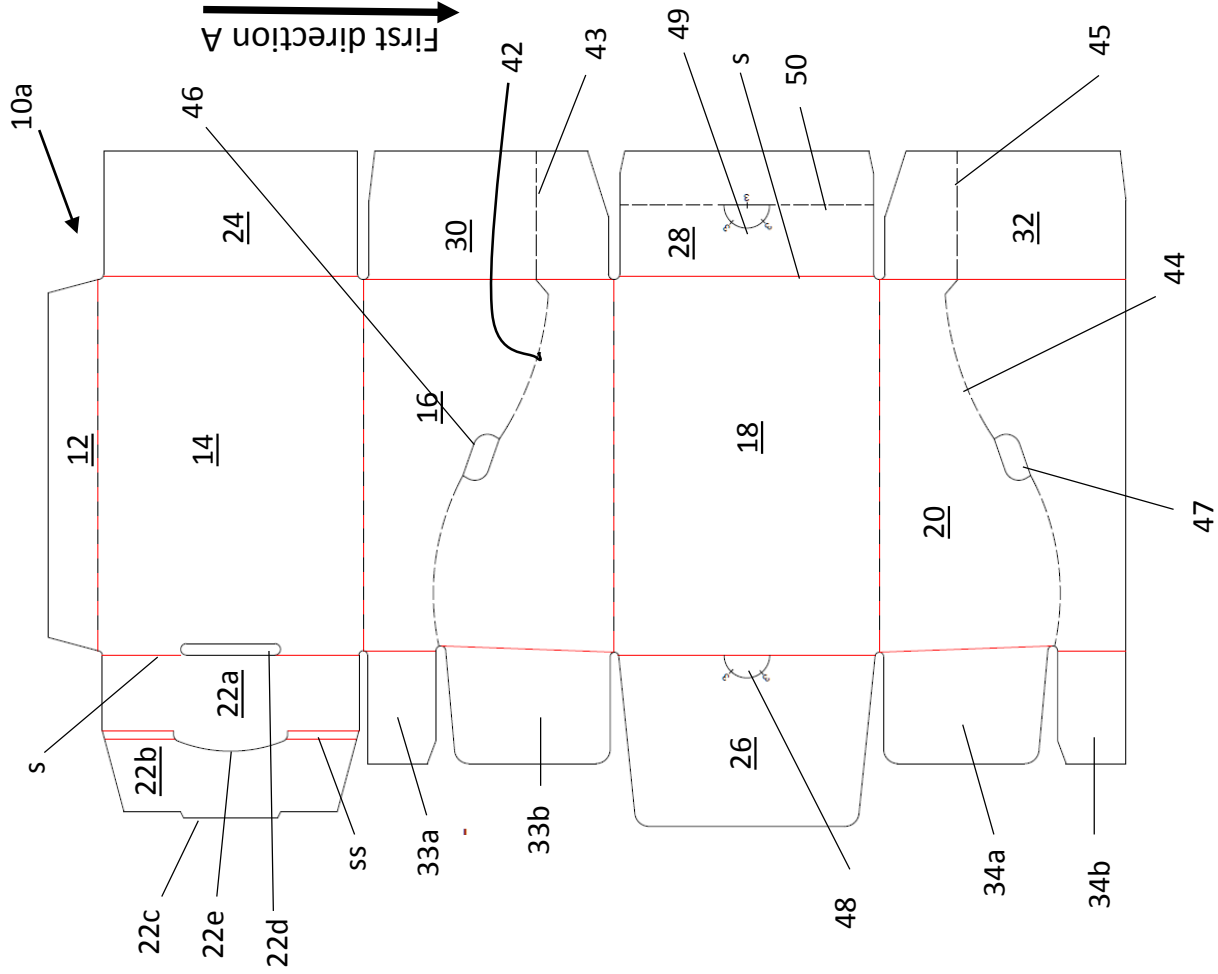


Fig. 5a

Fig. 5b



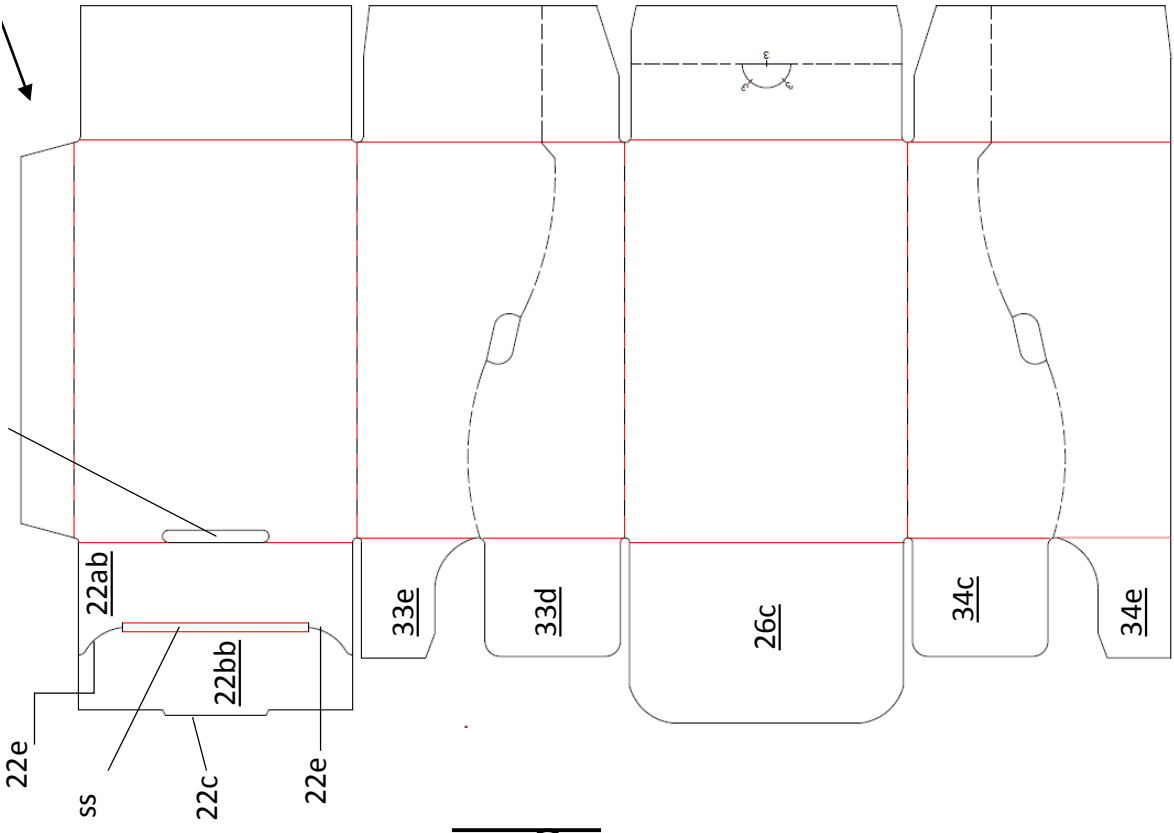


Fig. 5c

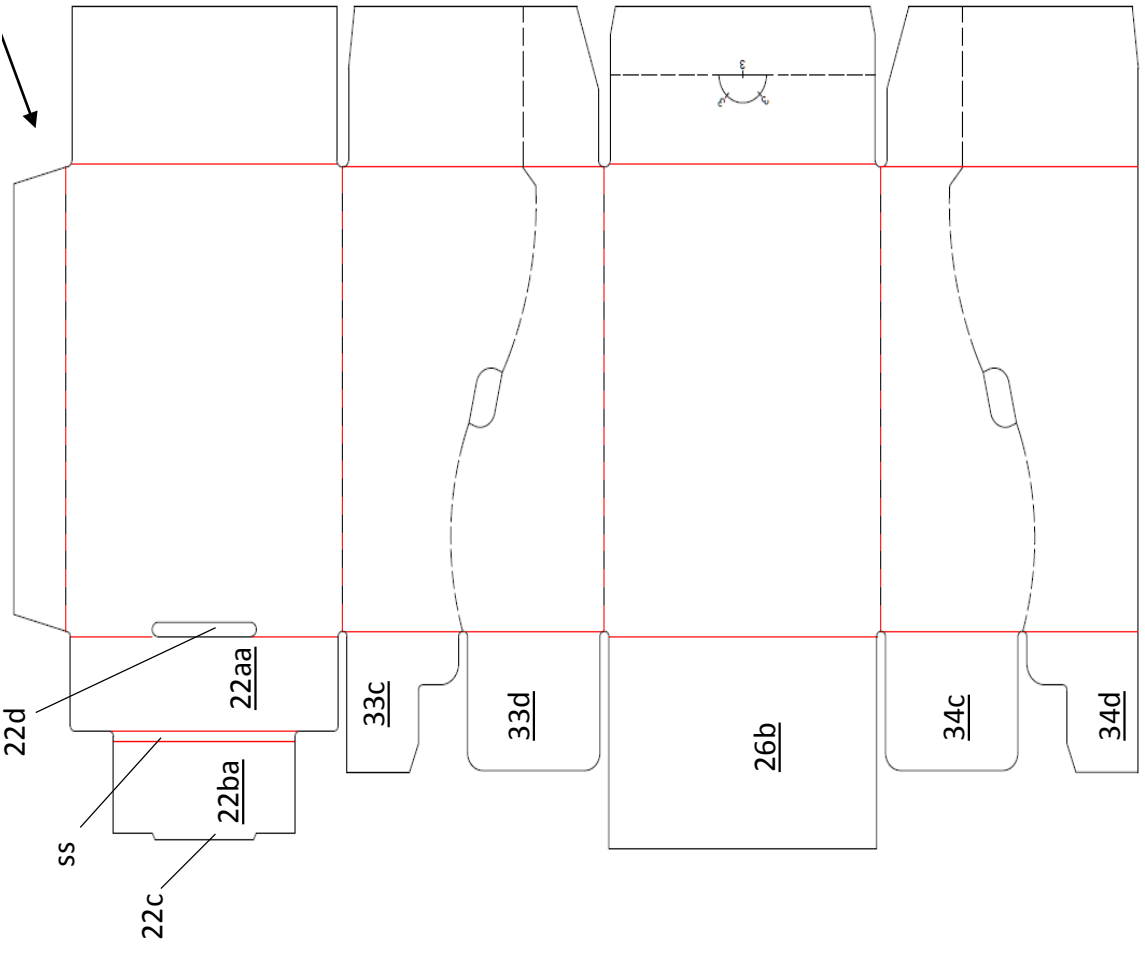


Fig. 5d

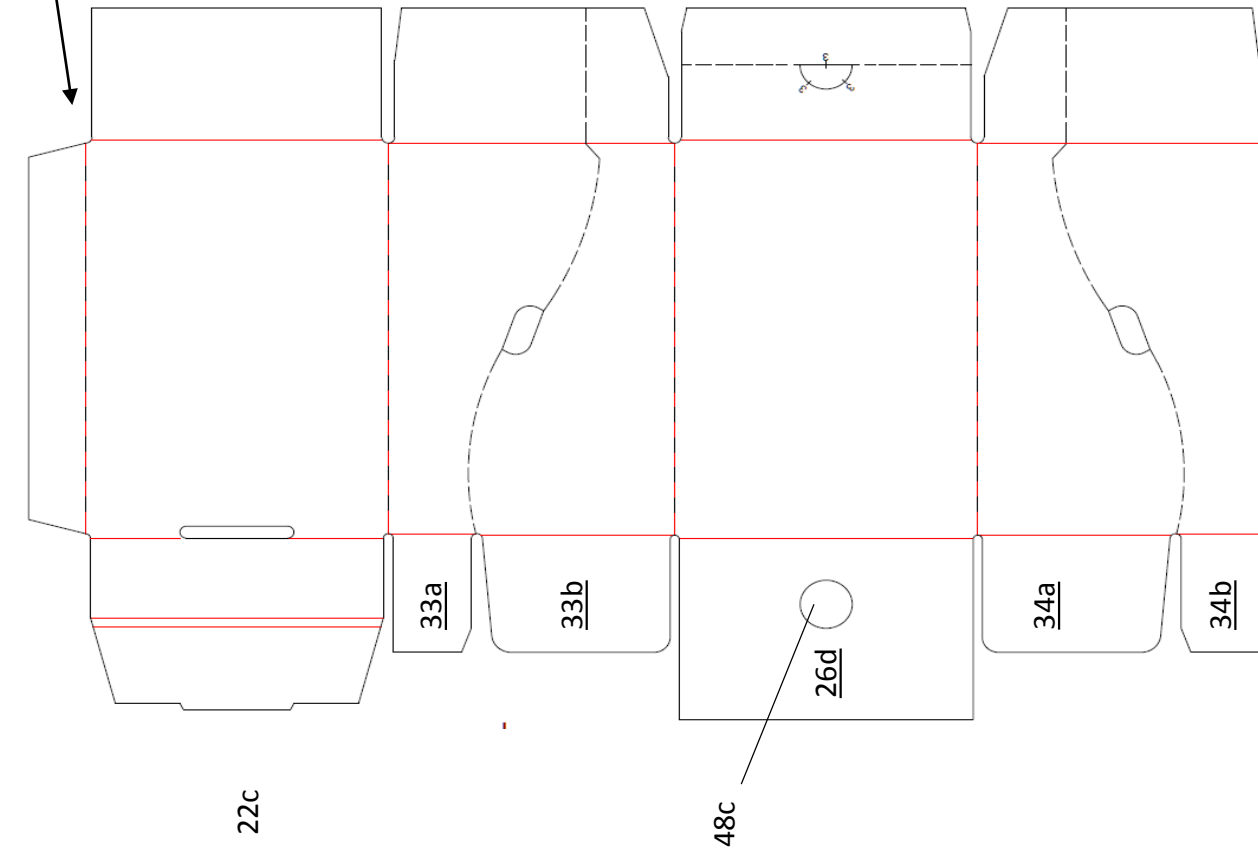


Fig. 5e

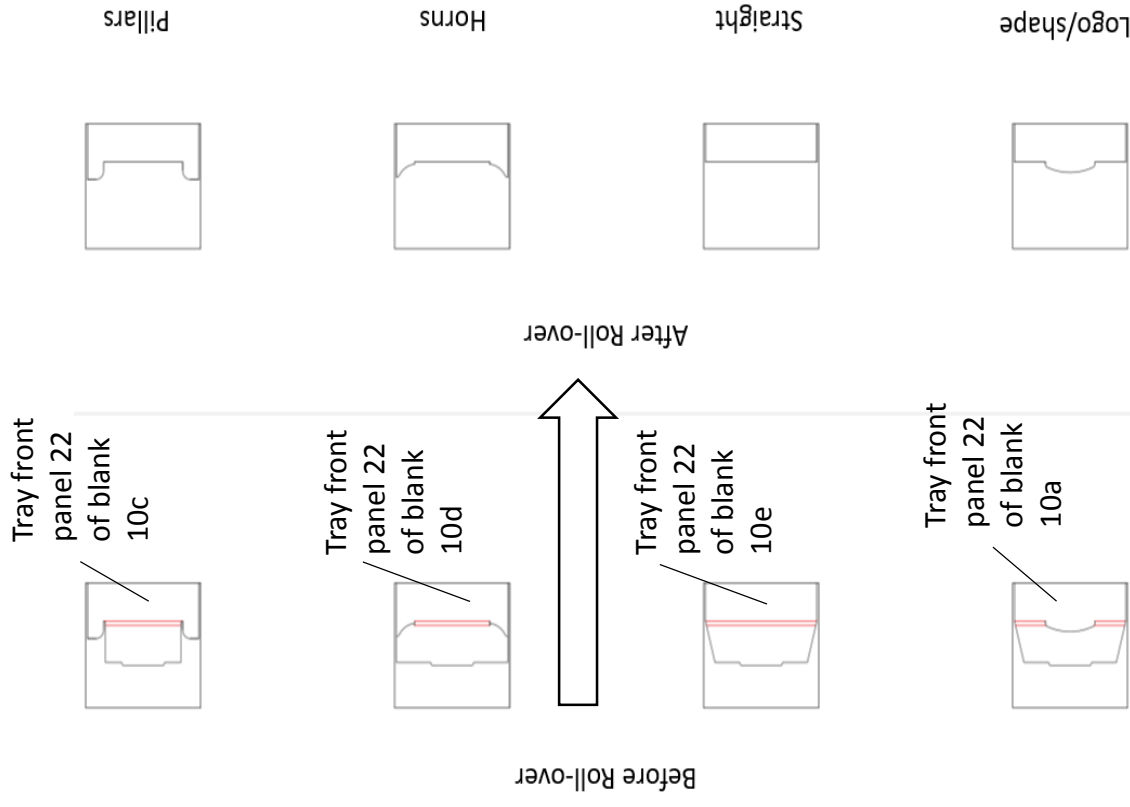


Fig. 7

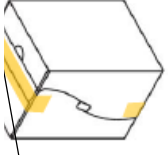


Fig. 6j

Top and bottom
tape sealed



Fig. 6i

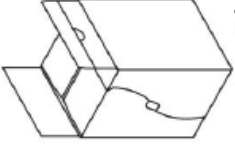


Fig. 6h

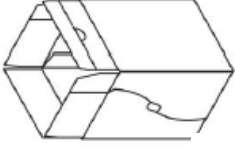


Fig. 6g

Loading through
open rear panels
and flaps

Case rotated for
product loading

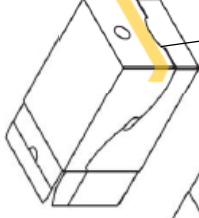


Fig. 6f

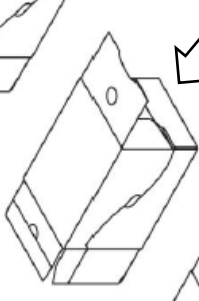


Fig. 6e

Lower front lip is
rolled over and
locked by hand

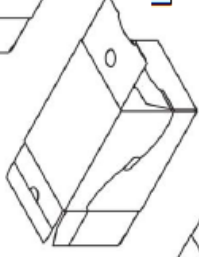


Fig. 6d

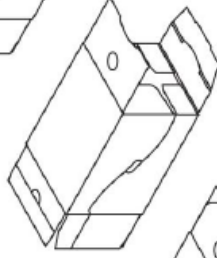


Fig. 6c

Rear

Front

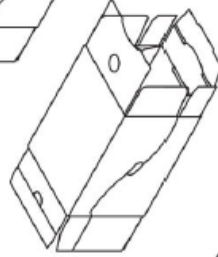


Fig. 6b

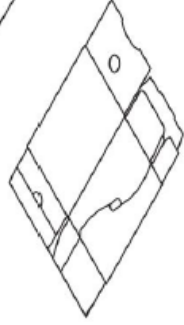


Fig. 6a

Pre-glued Sleeve

Flip container over
into orientation as
per fig 6f

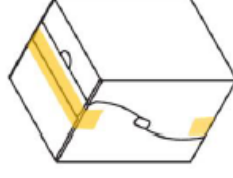


Fig. 6k

Tape applied to hood
front panel to secure
against upper portion
of side panels

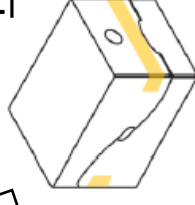


Fig. 6l

Typical Pallet
Orientation

Shelf Orientation