A large count package of rolled products comprises six sides. The sides are arranged in three pairs of generally parallel opposing sides. The large count package comprises an overwrap enclosing a plurality of individually wrapped packages of rolled products. Each package of the rolled products comprises at least two rolled products, each having a core defined therethrough. The
(57) Abstract (continued):
individually wrapped packages are disposed in the large count package with a longitudinal axis of each core of each of the rolled products being generally parallel with a plane of each of a front, back, left, and right side of the large count package. The overwrap is sealed with two seals, one seal being disposed on a top side and a bottom side of the large count package.
ABSTRACT

A large count package of rolled products comprises six sides. The sides are arranged in three pairs of generally parallel opposing sides. The large count package comprises an overwrap enclosing a plurality of individually wrapped packages of rolled products. Each package of the rolled products comprises at least two rolled products, each having a core defined therethrough. The individually wrapped packages are disposed in the large count package with a longitudinal axis of each core of each of the rolled products being generally parallel with a plane of each of a front, back, left, and right side of the large count package. The overwrap is sealed with two seals, one seal being disposed on a top side and a bottom side of the large count package.
PACKAGES FOR ROLLED PRODUCTS

FIELD

The present disclosure generally relates to packages for rolled products and, more particularly, relates to large count packages for rolled products, such as rolled fibrous products.

BACKGROUND

Rolled products or rolled absorbent or fibrous products such as paper towels, toilet tissue, disposable shop towels, and wipes, for example, are sometimes packaged and shipped in bundles of a plurality of rolls. The bundled packages often have two or more rolls stacked in a side-by-side fashion with another two or more rolls. Often, individually wrapped packages of the two or more rolls, or stacks of rolls, are packaged together into a larger “large count package.” In other embodiments, large count packages can contain a plurality of “naked,” (i.e., unwrapped) rolls of product. The individually wrapped packages or naked rolls can be stacked or positioned together into a generally cuboid-shaped bundle and bound together with an overwrap. Finished, overwrapped large count packages can then be stacked on a pallet for shipping. Typical pallets are designed to be moved by fork lifts, are typically rectangular-shaped, and are usually about three to about four and a half feet long on each side. Such pallets are often also used in retail stores for displaying the large count packages of rolled products to consumers.

Pallet sizes, inside shipping truck dimensions, palletizing equipment, packaging equipment, and packaging processes can all place constraints on a manufacturer’s ability to innovate in the area of packaging rolled products in a way that maximizes brand exposure to retail customers while on display in a retail store. Additionally, manufacturers desire to ship the greatest amount of product in the smallest amount of space in a form that ideally fulfills two goals: convenient shipping and handling and attractive shelf presence in a retail store that maximizes brand exposure to retail consumers.

Current packaging equipment and methodologies have certain limitations relating to optimizing shipping and retail presentation of rolled products. For example, current equipment for bundling naked rolls or individually wrapped packages of rolled products into large count packages of multiple rolls or multiple individually wrapped packages does so by processing the rolls with the rolled products in a vertical, stacked configuration (i.e., a longitudinal axis of each core of each roll is generally vertical). This is because the vertical orientation of the cores offers weight bearing structural support to the large count package in a vertical direction, which allows for large count
package stacking and stacking of pallets of large count packages. The group of vertically oriented rolls is then processed through a bundler which applies an overwrap. The overwrap is sealed with a “gusset” seal on the leading and trailing sides of the group of the rolled products.

Such gusset seals offer many advantages on large count packages for sealing and handling purposes, but they sometimes leave a poor visual appearance on the outer perimeter of the large count package by resulting in folds and creases of multiple layers of the overwrap that block visual aspects of the individually wrapped packages contained therein. Such folds and creases can also cover up or distort valuable branding information on the individually wrapped packages. Furthermore, gusset seals on the leading and trailing sides of the large count package can inhibit the full use of all of the area of the leading and trailing sides of the large count package for advertising or branding. In most instances, such advertising or branding may only be printed on a portion of the leading and trailing sides of the large count package owing to the positioning of the gusset seals on the leading and trailing sides. As a result, such positioning of the gusset seals can decrease the visual appeal of the leading and trailing sides when situated within a retail store.

Furthermore, current equipment that bundles individually wrapped packages or naked rolls into large count packages has height limitations for the stacks of rolled products. It would be advantageous to be able to stack individually wrapped packages of rolled products or naked rolls of rolled products into relatively high stacks, in a large count package with a relatively small footprint (i.e., in what can be termed a “tower” version of large count packages).

Two problems can be associated with achieving higher stacks of rolled products in a large count package. First, the equipment (e.g., bundler) used to wrap the group of individually wrapped and stacked packages or naked rolls is limited in its height opening. Second, even if the height opening were made larger, the amount of polymer overwrap material associated with the gusset seals would become excessive, creating cost issues (with wasted polymer material), potential safety issues (with excess folds getting caught on adjacent objects), and aesthetic issues (with multiple folds of material bulging out and covering up or distorting the branded information on the enclosed individually wrapped packages of rolled products or decreasing the printable area of the leading and trailing sides of the large count package).

Therefore, there is a long-felt, unmet need for a way to manufacture large count packages of relatively high stacks of rolled products (i.e., tower versions).
Further, there is a long-felt, unmet need to make large count packages of relatively high stacks of rolled products, wherein each of the large count packages remains stable when subjected to side-to-side movement, shaking, and/or tilting during transport or otherwise.

Still further, there is a long-felt, unmet need for large count packages of individually wrapped packages of two or more rolled products, wherein a gusset seal of the large count package does not significantly interfere with visibility of the branding indicia on the individually wrapped packages enclosed therein and/or does not significantly interfere with branding indicia on the leading and trailing sides of the large count packages.

SUMMARY

In one embodiment, the present disclosure is directed, in part, to a large count package of rolled products. The large count package comprises a generally cuboid shape comprising six sides, with the six sides arranged in three pairs of generally parallel opposing sides. The large count package comprises a film overwrap enclosing a plurality of individually wrapped packages of rolled products. Each package of the rolled products comprises at least two rolled products and each rolled product has a core defined therethrough. One of the first pair of opposing sides is a top side and the other of the first pair of opposing sides is a bottom side. One of the second pair of opposing sides is a front side and the other of the second pair of opposing sides is a back side. One of the third pair of opposing sides is a left side and the other of the third pair of opposing sides is a right side. The individually wrapped packages are disposed in the large count package with a longitudinal axis of each of the cores of each of the rolled products generally parallel with a plane of each of the front, back, left, and right sides. The overwrap is sealed with two seals. One seal is disposed on each of the top and bottom sides. The individually wrapped packages each comprise two generally flat sides. Each side has a plane that is positioned generally parallel to the longitudinal axis of each of the cores and that is positioned generally perpendicular to a longitudinal axis of one of the seals.

In another embodiment, the present disclosure is directed, in part, to a pallet comprising a surface for supporting products. The pallet has four sides with each side comprising an edge positioned proximate to the surface. The edges define a perimeter of the surface. The pallet comprises a plurality of large count packages of rolled products supported by the surface. Each of the large count packages comprises the same or similar features as discussed in the preceding paragraph. Each of the large count packages is disposed on the surface such that no portion of any of the large count packages extends more than about 4 inches outside of the perimeter of the surface. The large count packages and the pallet are wrapped with a stabilizing film such that the stabilizing
film wraps and stabilizes the large count packages and a portion of the stabilizing film extends below each edge and onto each pallet side.

In still another embodiment, the present disclosure is directed, in part, to a pallet comprising a plurality of large count packages supported on a surface thereof. Each of the large count packages comprises at least two individually wrapped packages of rolled products. Each rolled product has a hollow core defined therethrough. Each individually wrapped package of rolled products comprises at least two stacks of two rolls. The cores of each stack of two rolls are generally parallel and aligned and each adjacent stack of rolls lies generally in the same plane as the other stack within the individually wrapped package. The large count package comprises an overwrap of film or polymer film that encloses the individually wrapped packages of rolled products. The overwrap is bound with a seal on two sides. One of the seals is on a side supported by the pallet and the other of the seals is on the side opposite the side supported by the pallet. The individually wrapped packages each comprise two generally flat sides with each side having a plane that is positioned generally parallel to the longitudinal axis of each of the cores and that is positioned transverse to a longitudinal axis of one of the seals.

In yet another embodiment, the present disclosure is directed, in part, to a method of packaging a plurality of rolls of products having cores defined therethrough. The method comprises packaging at least two rolls together to form a first individually wrapped package, packaging another at least two rolls together to form a second individually wrapped package, and positioning a longitudinal axis of a core of each of the at least two rolls in the first individually wrapped package in a generally horizontal orientation generally in a machine direction on a conveyor. The method further comprises positioning a longitudinal axis of a core of each of the at least two rolls in the second individually wrapped package in a generally horizontal orientation generally in the machine direction on the conveyor, rotating the first individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the first individually wrapped package is in a generally horizontal orientation, and rotating the second individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the second individually wrapped package is in a generally horizontal orientation. The method further comprises positioning the first individually wrapped package in a generally side-by-side relationship with the second individually wrapped package, feeding the first individually wrapped package and the second individually wrapped package into a bundler, applying an overwrap around both of the first individually wrapped package and the second individually wrapped package,
and forming seals on two vertically positioned sides created by a portion of the first individually wrapped package and a portion of the second individually wrapped package to create a large count package comprising the first individually wrapped package and the second individually wrapped package.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The above-mentioned and other features and advantages of the present disclosure, and the manner of attaining them, will become more apparent and the disclosure itself will be better understood by reference to the following description of non-limiting embodiments of the disclosure taken in conjunction with the accompanying drawings, wherein:

- Fig. 1 is a perspective view of a large count package for toilet tissue;
- Fig. 2A is a front view of a large count package for paper towels;
- Fig. 2B is a top view of the large count package of Fig. 2A;
- Fig. 3 is a perspective view of a large count package in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 4A is a front view of a large count package in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 4B is a top view of the large count package of Fig. 4A in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 5 is a perspective view of an individually wrapped package in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 6 is a perspective view of another individually wrapped package in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 7 is a schematic illustration of a large count package, (B), in accordance with one non-limiting embodiment of the present disclosure, compared to a conventional large count package (A);
- Fig. 8 is a simplified perspective view of a pallet in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 9 is a simplified side view of a plurality of large count packages positioned on a pallet in accordance with one non-limiting embodiment of the present disclosure;
- Fig. 10 is a process flow diagram for manufacturing large count packages in accordance with one non-limiting embodiment of the present disclosure;
Fig. 11 is a cut away view taken along line 11-11 of Fig. 10, illustrating a flipper mechanism for flipping or rotating individually wrapped packages in accordance with one non-limiting embodiment of the present disclosure; and

Fig. 12 is a view of a large count package of the present disclosure approaching an orientation mechanism comprising a biasing bar in accordance with one non-limiting embodiment of the present disclosure.

**DETAILED DESCRIPTION**

Various non-limiting embodiments of the present disclosure will now be described to provide an overall understanding of the principles of the structure, function, manufacture, and use of the large count packages for rolled products disclosed herein. One or more examples of these non-limiting embodiments are illustrated in the accompanying drawings. Those of ordinary skill in the art will understand that the large count packages for rolled products specifically described herein and illustrated in the accompanying drawings are non-limiting example embodiments and that the scope of the various non-limiting embodiments of the present disclosure are defined solely by the claims. The features illustrated or described in connection with one non-limiting embodiment can be combined with the features of other non-limiting embodiments. Such modifications and variations are intended to be included within the scope of the present disclosure.

**Definitions**

The term "cross direction" means the direction generally perpendicular to the direction of process flow of a product on a conveyor or assembly line (i.e., a direction generally perpendicular to a machine direction).

A "consumer" is the ultimate purchaser and/or user of the rolled product within the large count packages or within the individually wrapped packages of rolled product.

A "customer" is an entity that purchases large count packages or pallets of large count packages from a manufacturer with plans on selling the same to one or more consumers.

The term "large count package" means a package comprising multiple individually wrapped packages of two or more rolled products or a plurality of naked rolls of products enclosed, or at least partially enclosed, in an overwrap, such as a film overwrap.

The term "machine direction" means the direction of process flow of a product on a conveyor or assembly line (i.e., a direction generally perpendicular to the cross direction).

Disposable rolled products or disposable rolled absorbent products or disposable rolled paper products, such as paper towels, facial tissues, toilet tissues, shop towels, wipes, and the like, are
generally made from one or more webs of fibers, such as cellulose fibers or nonwoven fibers, for example. If the fibrous products are to perform their intended tasks and to find wide acceptance, they, and the webs from which they are made, should usually exhibit certain physical characteristics. Among the more important of these characteristics are strength, softness, and absorbency. Strength is the ability of a fibrous web to retain its physical integrity during use. Softness is a pleasing tactile sensation the user perceives as the fibrous product is crumpled in their hand and is contacted to various portions of the anatomy. Absorbency is the characteristic of the fibrous product that facilitates the take up and retention of fluids, particularly water, aqueous solutions, and/or suspensions. Two important characteristics of a fibrous product include the absolute quantity of a fluid the given amount of fibrous product will hold, but also the rate at which the fibrous product will absorb the fluid. When the fibrous product is formed into a paper towel, toilet or facial tissue, shop towel, and/or a wipe, for example, the ability of the fibrous product to cause a fluid to preferentially be taken up into the fibrous product and, thereby, leave a wiped surface dry, or substantially dry, is also important. "Rolled products" or "rolls of product" or "rolls" within the present disclosure can include products made from cellulose fibers, nonwoven fibers, other suitable fibers, and combinations thereof. In one embodiment, the rolled products can be made of, or partially made of recycled fibers.

Referring to Fig. 1, in a conventional large count package 1 for toilet or bath tissue rolls 2 or multiples packages of the rolls 2, can be stacked two high vertically and then feed into a bundler, with a longitudinal axis of each core of each roll 2 being oriented in a generally vertical direction. The bundler is a piece of machinery that applies an overwrap 3 and creates seals in the overwrap 3 to form large count packages 1. The longitudinal axis of each core of each roll 2 is generally parallel to a longitudinal axis of a core of another roll 2 in the stack of the rolls 2. When the rolls 2 are fed into the bundler in such an orientation, the overwrap 3 is positioned around the stacks of the rolls 2 and gusset seals 4 are formed on the leading and trailing sides in a horizontal arrangement (i.e., a direction generally parallel with a surface of a conveyor on which the large count package 1 rests). Such gusset seal locations may not be desirable to manufacturers, customers, and/or consumers as point-of-sale indicia, such as branding indicia, for example, on the overwrap 3 positioned on the leading and trailing sides of the large count package 1, is usually limited to the non-gusset seal areas or less than about 70% of each of the leading and trailing sides. If ink is printed on the overwrap 3 where the gusset seals 4 are to be formed, the gusset seals 4 may not be formed properly, in that the ink can adversely affect the formation of a heat seal bond used to form the gusset seals 4.
Furthermore, using gusset seals 4 on the leading and trailing sides of the conventional large count package 1 can cause the overwrap 3 to bunch together and form creases therein, sometimes leading to a less than desirable aesthetic appearance for a customer and/or a consumer. Additionally, such configurations of large count packages are generally limited to one or three rows of rolled product high based on height dimension limitations of the bundler.

Referring to Fig. 2A and 2B, a conventional large count package 5 for individual rolls of paper towels 6 is illustrated. Fig. 2A is a front view of the large count package 5. Fig. 2B is a top view of the large count package 5. In such a large count package 5, each individual rolled paper towel product 6 can be enclosed within an individually wrapped package (not illustrated) and then those paper towel products 6 can be packaged into the large count package 5. In other embodiments, the individual rolls of paper towel product may not be individually wrapped and can instead be “naked.” In such embodiments, gusset seals 7 are positioned on the top and bottom sides of the large count package 5. The paper towel rolls 6 are usually only positioned two rows high using “elevator” technology. Elevator technology generally is technology that places one roll of individually wrapped paper towels 6 in a first row and a second roll of individually wrapped paper towels 6 in a second row that is on top of the first row before the individually wrapped packages of paper towels 6 enter the bundler. In such an orientation, a longitudinal axis of each core of each roll of paper towels 6 extends in a generally horizontal direction, in the machine direction. In general, the large count package 5 is usually only two rows high owing to the elevator technology being capable of supplying only a two roll stack of paper towels 6, the height restrictions of the bundler, and because of the individually packaged nature of each individually wrapped roll of paper towels 6 (i.e., stability issues).

Wrapping single rolls of toilet tissue to be positioned within a large count package is generally not desirable because of the give or looseness of the overwrap and the possible relative movement between the individually wrapped rolls, potentially leading to stability issues of the large count package. Also, consumers seem to desire that more than one roll of toilet tissue is packaged together for ease in distribution throughout a household or other premises. Moreover, in some instances, one or more individually wrapped rolls of toilet tissue can slide or fall out of the generally cuboid-shaped large count package, leading to various issues, including unattractiveness of the large count package when positioned within a retail store or other area. What is more preferred is to wrap two or more rolls of toilet tissue together and then position and align two or more of those individually wrapped packages of toilet tissue together and apply an overwrap therearound to form a
large count package. Conventional techniques for packaging toilet tissue often comprise packaging two or more rolls of product together and orienting each of the rolls of product with a longitudinal axis of their respective cores in a vertical orientation when entering the bundler. In such an instance, gusset seals are formed on leading and trailing sides (in the machine direction) of the large count package. Various issues, as discussed herein, result from having gusset seals positioned on the leading and trailing sides of a large count package.

To provide better methods of packaging and better large count packages, the present disclosure provides, in part, large count packages for rolled products that have seals or gusset seals positioned on the top and bottom sides thereof instead of on the leading and trailing sides (in a machine direction). The term “seals” can include any seals known to those of skill in the art. Such positioning of the seals or gusset seals results in a plane of the top and bottom sides of the large count packages to be situated generally perpendicular to a longitudinal axis of a core of each roll within the large count packages. The present disclosure also contemplates a method of manufacturing the large count packages and pallets of large count packages, such as shipping and display pallets. Various benefits of the large count packages of the present disclosure are discussed herein. The large count packages of the present disclosure can be sold in club stores, supermarkets, department stores, warehouses, discount outlets, and/or convenience stores, for example.

In one embodiment, referring to Fig. 3, a large count package 10 encased in an overwrap 12 of sealed or unsealed polymer film, or other film or material, can comprise seals or gusset seals 14 on top and bottom sides thereof (bottom seal or gusset seal not illustrated). The overwrap 12 can hold individually wrapped packages 16 of at least two rolls of product together to form the large count package 10 into a rectangular cuboid shape or cuboid shape and add to its stability. Each roll of product can be wound about a paper, cardboard, paperboard, or corrugate tube to form a core through each roll. Each core can define a longitudinal axis extending therethrough. In other various embodiments, the rolls of product may not comprise the paper, cardboard, paperboard, or corrugate tube, but instead the product can be wound about itself to form a roll while still forming a core defined through each roll. The void area in the center of each roll where the product winds about itself can be considered a “core” for purposes of this disclosure and the claims. Such rolls are known in the art as “coreless” rolls. In such embodiments, the same principals of the present disclosure, including the orientation of the rolls within the various individually wrapped packages and large count packages, can be applied to “coreless” rolls.
In one embodiment, referring to Fig. 3, the large count package 10 comprises 18 rolls of the rolled product, but, the present disclosure is not limited to such a number of rolls within a large count package. In fact, any suitable number of rolls equal to or greater than 4 can be combined into a large count package. In various example embodiments, a large count package can comprise 6 rolls, 8 rolls, 9 rolls, 12 rolls, 16 rolls, 18 rolls, 20 rolls, 24 rolls, 27 rolls, 30 rolls, 32 rolls, 36 rolls, 40 rolls, 45 rolls, 48 rolls, 54 rolls, 60 rolls, or 72 rolls, for example, or any other suitable number of rolls. The method of packaging a large count package of the present disclosure permits greater flexibility in the number of rolls and configurations of rolls that can be provided in a specific large count package.

In various embodiments, referring to Figs. 4A and 4B, a large count package 10' encased in an overwrap 12' optionally of a sealed polymer film can comprise seals 14', such as gusset seals, for example, on top and bottom sides thereof is illustrated. Fig. 4A is a front view of the large count package 10' and Fig. 4B is a top view of the large count package 10'. The large count package 10' comprises 48 rolls of rolled products. In various embodiments, when viewing a top side (Fig. 4B) of the large count package 10', the number of rolls of product in a first direction can be greater than a number of rolls of product in a second direction to provide stability to the large count package 10'. Stated another way, a top side and a bottom side of the large count package 10' can be rectangular. In other various embodiments, the top and bottom sides can be square or can be any other suitable shape.

In various embodiments, referring again to Fig. 3, the large count package 10 can have a generally cuboid shape, a generally rectangular cuboid shape, or any other suitable shape. In an embodiment where the large count package 10 has a generally rectangular cuboid shape, or a cuboid shape, the large count package 10 can comprise six sides. The sides can be arranged in three pairs of generally parallel opposing sides. A first pair of the opposing sides can be a top side and a bottom side. A second pair of the opposing sides can be a front side and a back side. A third pair of the opposing side can be a left side and a right side. Point-of-sale indicia (i.e., branding materials, other indicia, and/or other materials that a consumer sees when purchasing a product at a retail store) can be printed or positioned on any of the top, bottom, front, back, left, and right sides. In other various embodiments, such indicia or other materials may only be printed or positioned on the top, front, back, left, and right sides, for example. In still other various embodiments, such indicia or other materials can be printed or positioned on one or more sides of the large count package 10.
In one embodiment, referring generally to Fig. 3, for example, the large count package 10 can comprise two or more individually wrapped packages 16 of rolls of product. Each individually wrapped package 16 can comprise at least two stacks of at least two rolled products. A longitudinal axis of each of the cores of each stack of at least two rolls can be generally parallel and aligned with each other and adjacent stack(s) of at least two rolls can lie in generally the same plane as the other stack(s) of at least two rolled products. All individually wrapped packages will be referred to herein as “16,” although some individually wrapped packages will have a different number of rolls of rolled product therein. In various embodiments, the individually wrapped packages 16 can each comprise two or more rolls of product, such as two, three, four, six, eight, nine, ten, twelve, or fifteen rolls of product, for example. Those of skill in the art will recognize that other numbers of rolls of product can be useful in individually wrapped packages depending on a desired configuration of a particular large count package or a consumer need. The two or more rolls of product can be stacked on top of each other and each stack can be positioned adjacent to another stack within the individually wrapped package 16. In such an embodiment, a longitudinal axis of each of the cores of the two or more rolls of product in each stack can be generally parallel and aligned and each stack can be in the same plane, or in generally the same plane, as each adjacent stack. In other various embodiments, the two or more rolls of product can be positioned generally in a side-by-side fashion with respect to each other within the individually wrapped package 16. In one embodiment, referring to Fig. 5, the individually wrapped package 16 can comprise four rolls of product and can comprise a seal 17, such as an envelope seal, for example, formed thereon. In another embodiment, referring to Fig. 6, the individually wrapped package 16 can comprise nine rolls of product (envelope seal or other seal not illustrated). Multiple rolls of product can be enclosed and/or sealed in a polymer film or other suitable material to form the individually wrapped packages 16.

In one embodiment, referring to Figs. 3-6, the individually wrapped packages 16 can each comprise a first side 18 and a second side 20 which can each have planes that are positioned generally perpendicular (between axes 21 of the planes) to a longitudinal axis 22 of the seal or gusset seal 14 or of both of the seals or gusset seals 14. In one embodiment, a plane of the first side 18 and the second side 20 can each intersect, in a generally perpendicular fashion, with the longitudinal axis 22 of the seals or gusset seals 14. Point-of-sale indicia 19 (Figs. 5 and 6) can be positioned on or printed on the first side 18 and/or the second side 20. Such point-of-sale indicia 19 can be visible through the overwrap 12 through at least one side of the large count package 10. In various embodiments, two or more, such as three, for example, individually wrapped packages 16 can be
positioned within the large count package 10. Each individually wrapped package 16 can comprise at least two vertically oriented stacks of rolled products. In one embodiment, the first side 18 and the second side 20 of each individually wrapped package 16 can have generally flat sides having planes positioned generally parallel with the longitudinal axis of each of the cores, wherein the first and second sides 18 and 20 can comprise point-of-sale indicia, branding indicia, and/or other materials. The individually wrapped packages 16 can be oriented within the large count package 10 such that at least on one side of the large count package 10 such indicia or other materials are visible through the overwrap 12. In various embodiments, the individually wrapped packages 16, or portions thereof, are viewable through the overwrap 12 from a position outside of the large count package 10.

In various embodiments, referring to Fig. 7, the first and second sides 18 and 20 of the individually wrapped packages 16 not forming an outer perimeter of a large count package can be positioned adjacent to each other or generally in a side-by-side relationship. In fact, the first and second sides 18 and 20 of the individually wrapped packages 16 can be positioned generally in a face-to-face relationship within the large count package, with the exception of those first and second sides 18 and 20 that form a portion of the outer perimeter of the large count package (i.e., the individually wrapped packages 16 on the ends of the large count package). In Fig. 7, large count package B is more stable than large count package A owing to the orientation and packaging of the individually wrapped packages 16 within the large count packages A and B. When both of the large count packages A and B are pushed or moved in the directions indicated by arrow C, the large count package A is about as stable as the large count package B because both of the large count packages A and B comprise bases that are three rolls wide. When both of the large count packages A and B are pushed or moved in the directions indicated by arrow D, however, the large count package B is much more stable than the large count package A, as the large count package A comprises two individually wrapped packages 16' that can move and/or slide relative to each other. Stated another way, the two individually wrapped packages 16' in the large count package A essentially form two plate-like structures that can slide or move relative to one another. If the large count package A is put on an angled or inclined floor, one of the individually wrapped packages 16' will likely fall or move lower than the other, thereby increasing the likelihood of the overall large count package A falling over. The large count package B, however, of the present disclosure, is quite stable if moved in the directions indicated by arrow D or if positioned on an angled or inclined floor owing to the configuration and packaging of the three individually wrapped packages 16 that create a two roll
deep base bound together, verses a two roll deep base not bound together as created by the individually wrapped packages 16’ of the large count package A.

In various embodiments, still referring to Fig. 7, the large count package B can resist tipping over or have a greater “tipping angle” than the large count package A owing to the configuration and/or orientation of the individually wrapped packages 16 within the large count package B, as compared to the configuration and/or orientation of the individually wrapped packages 16’ within the large count package A. The tipping angle is the angle at which a large count package will fall over onto its side (verses sitting on its base or bottom side), if pushed or moved in the directions indicated by arrow D and/or if acted upon by forces of gravity when the base is on an inclined surface. The tipping angle can be measured between the inclined surface that a large count package is positioned on and the horizontal. The large count package A will tip over easier than the large count package B, when pushed or moved in the directions indicated by arrow D, or if positioned on an inclined surface, owing to the configuration and orientation of the individually wrapped packages 16 and 16’.

The tipping angle for the large count package A can vary based on factors such as large count package dimensions, roll diameters, roll lengths, compressibility of the rolled products, and/or tightness of the overwrap around the individual packages of two or more rolled of products, for example.

In one embodiment, referring again to Fig. 7, large count packages can have extra material in the overwrap. Stated another way, the overwrap can fit loosely around the individually wrapped packages 16 and 16’ within the large count packages A and B. By providing the individually wrapped packages 16 in the orientation illustrated in large count package B, this loose fit of the overwrap will not have any significant adverse influence on the stability of the individually wrapped packages 16 within large count package B owing to their orientation. A loose overlap on large count package A, however, can have an adverse influence on the stability of the individually wrapped packages 16’ within large count package A in that the individually wrapped packages 16’ can more easily slide relative to each other owing to their configuration (thereby reducing stability in the D directions). It is important to note that the orientation of the individually wrapped packages 16 within large count package B provides improved stability to the large count package B when pushed in the D directions (see arrow in Fig. 7) when compared to large count package A. In fact, large count package A can have reduced stability when pushed in the D directions, while large count package B can have suitable stability when pushed in the D directions.
The large count package A can have seals or gusset seals formed on top and bottom sides thereof. The large count package A can be formed, for example, by providing two individually wrapped packages of 3 rolls wide, by 3 rolls wide, by 1 roll deep (i.e., nine roll individually wrapped packages). A first individually wrapped package of nine rolls can be positioned on top of a second individually wrapped package of nine rolls before the packages are conveyed into a bundler. In such an orientation, the longitudinal axis of each roll in each of the first and second individually wrapped packages 16' is positioned generally horizontally. The first individually wrapped package can be positioned on top of the second individually wrapped package using elevator technology. The incorporation of elevator technology into production lines, however, is quite expensive (e.g., sometimes in the nature of millions of dollars per manufacturing line), thereby somewhat limiting its use. Furthermore, the elevator technology limits the configurations and orientations of large count packages that a manufacturing facility can produce when compared to the technology of the present disclosure.

Through the advancements taught by the present disclosure, more large count packages can be positioned on and/or supported by a pallet owing to the ability to now produce stable “tower” configuration large count packages having a smaller “footprint” or base than conventional large count packages 1 (see e.g., Fig. 1). Previously, a 24 roll large count package generally was 3 rolls wide, by 4 rolls deep, by two rolls high (i.e., two layers of 12 rolls). As mentioned herein, a typical bundler can usually only accept heights of two or three rolls high, thereby limiting the configurations available for previous large count packages. Stated another way, previous large count packages were limited to a two or three roll height and seals or gusset seals were formed on the leading and trailing sides of the large count package. With the technology of the present disclosure, however, a 24 roll large count package can be 3 rolls wide, by 2 rolls deep (the limited dimension), by 4 rolls high owing to the fact that the height of large count packages 10 is not longer limited. The size of the large count package can now also be doubled to a 48 roll large count package by making the large count package 4 rolls wide, by 3 rolls deep, by 4 rolls high. Previous technology for making 48 roll large count packages would not permit such a large count package to be made because of pallet spacing issues and bundler height limitations. As a result, not only do the methods of packaging large count packages of the present disclosure allow for a reduced footprint of a large count package on a pallet, but they also allow manufacturers to make large count package configurations that were previously not possible.
One difference in the present large count packaging methods is that a longitudinal axis of each core of each rolled product within an individually wrapped package is now positioned generally horizontally when it enters the bundler and when the bundler applies the overwrap therearound, as compared to the longitudinal axis of each of the cores of the rolled product being positioned generally vertically upon entry into the bundler. Stated another way, the maximum height a bundler can accept is no longer limiting to the configuration of large count packages being produced. As such, tower packs can now be produced where only the depth of the rolls of the large count package is limited to the maximum height of the bundler. As a result, although the depth height is limited by the bundler, tower large count packages can be produced that are easier to handle, ship, transport by consumers, and/or store. Previous large count packages, such as 60 roll large count packages, were often hard to handle, ship, transport, and/or store by consumers owing to their large, short, rectangular configuration.

A typical pallet 30, such as a shipping and/or display pallet, for example, is illustrated in Fig. 8. The pallet 30 can be rectangular, for example. As known to those of skill in the art, a rectangle can include a square. In one embodiment, the pallet 30 can comprise four sides 32, each side 32 comprising an edge 34 positioned adjacent to a pallet surface 31, wherein the edges 34 together form a surface perimeter. The surface 31 can be configured to receive or support the large count packages 10. In one embodiment, a material, such as a paperboard, for example, can be positioned on the surface 31 to protect the large count packages from damage. Due to safety and product damage reasons, any large count package 10 on the pallet 30 may not usually extend more than about 4 inches outside of the surface perimeter or hang over any of the edges 34 by more than about 4 inches. In other embodiments, the large count packages 10 may not extend more than 3 inches, 2 inches, 1 inch, or at all from the surface perimeter defined by the edges 34.

In one embodiment, referring to Fig. 9, the pallet 30 can be loaded with one or more of the large count packages 10. In various embodiments, the sides 36 of the large count packages 10 can have more than about 85% coverage of branding indicia, point-of-sale indicia, other indicia, and/or other materials owing to the fact that the seals or gusset seals 14 are positioned on the top and bottom sides of the large count packages 10. In another embodiment, such indicia or materials can cover from greater than 85% to about 100%, specifically reciting every one percent therebetween, of the surface area of each of the sides 36 of the large count packages 10. By providing the large count packages 10 of the present disclosure, more side wall surface area can be used more fully to promote branding or product benefits, thereby adding to the overall aesthetic appearance of the large count
packages 10. End walls (not illustrated in Fig. 9) of the large count packages 10 can also be used for branding or other printed material because of the positioning of the seals or gusset seals 14 on the top and bottom sides of the large count packages 10. In one embodiment, the sides 32 of the pallet 30 may also comprise branding or other printed material. The pallet 30 and the large count packages 10 supported thereon can be wrapped with a stabilizing film (not illustrated), such as stretch wrap, for example, that extends below each edge 34 (see Fig. 8) and onto each pallet side 32. The stabilizing film can be used to maintain the large count packages 10 on the pallet 30 and to hold the large count packages 10 together.

In one embodiment, a method of packaging a plurality of rolled products is provided. Referring to Fig. 10, the method can comprise packaging at least two rolled products together in an individually wrapped package 16. Multiple individually wrapped packages 16 can be prepared, such as two, three, four, five, six, eight, nine, ten, or twelve, for example. The individually wrapped packages 16 can be the same as any of the individually wrapped packages 16 described above. The individually wrapped packages 16 can then be positioned on or conveyed to a conveyor 40, such as a set of rollers or a continuous belt, for example. When on the conveyor 40, one of the first side 18 and the second side 20 of each of the individually wrapped packages 16 can rest on the conveyor 40, with the other of the first side 18 and the second side 20 of each of the individually wrapped packages 16 facing away from the conveyor 40. In general, the first side 18 and the second side 20 can each have a larger surface area than the other four sides (i.e., two other side walls and two end walls) of the individually wrapped packages 16. The longitudinal axis (indicated by dashed lines) of each core of each roll can be positioned generally horizontally generally in the machine direction (as indicated by arrow E) and more than one stack of rows of rolled products can be supported by the conveyor 40. Each of the individually wrapped packages 16 can then be flipped or rotated about 90 degrees in a cross-direction (i.e., a direction generally perpendicular to the direction indicated by arrow E) to an upright position where the longitudinal axis of each core of each roll is positioned horizontally, still generally in the machine direction, and one stack of rows (i.e., a side wall other than the first side 18 and the second side 20) can be supported by the conveyor 40. Those of skill in the art will recognize that, with individually wrapped packages 16 comprising more than one row in depth, the conveyor 40 can support two or more rows in a similar upright orientation. After the individually wrapped packages 16 are flipped or rotated about 90 degrees, generally in the cross direction into an upright position, each individually wrapped package 16 can be conveyed or moved between guide rails 38 or other structures to maintain the generally upright positioning of the
individually wrapped packages 16 when they enter a bundler 42. Once inside the bundler 42, the multiple individually wrapped packages 16 can be bundled together with the overwrap 12 to create one of the large count packages 10 of the present disclosure. The overwrap 12 can be sealed using seals or gusset seals 14, on the leading and trailing sides of the newly formed large count package 10. During bundling, the longitudinal axis of each core of each roll can be positioned generally horizontally generally in the machine direction (as indicated by arrow E). The large count package 10 can then be moved or conveyed out of the bundler 42.

In one embodiment, when the large count package 10 exits the bundler 42, the longitudinal axis of each core of each roll can be positioned generally horizontally generally in the machine direction. The large count package 10 can then be flipped or rotated about 90 degrees in or opposite to the machine direction into an orientation in which the longitudinal axis of each of the cores of the rolls is in a generally vertical orientation. As such, the gusset seals 14, or other seals, on the large count package 10 are now positioned on the top and bottom sides of the large count package 10 as the large count package 10 rests on, or is supported by, the conveyor 40. Stated another way, the leading and trailing sides of the large count package 10 can be rotated into a position where they form the top and bottom sides of the large count package 10. In other embodiments, the large count package 10 can be flipped or rotated about 90 degrees in or opposite to the machine direction while within the bundler 42, but after application of the overwrap 12. The large count package 10 can then be conveyed or moved away from the bundler 42 for loading onto a pallet or direct shipping, for example.

In one embodiment, referring to Fig. 11, example flipper mechanisms 44 for flipping or rotating the individually wrapped packages 16 into an upright position are illustrated. The cross-sectional view of Fig. 11, taken about line 11-11 of Fig. 10, also illustrates a roller 43 about which the conveyor 40 can travel. The flipper mechanisms 44 can each comprise a support member 46 and a flipper 48. In one embodiment, the flipper 48 can be attached to the support member 46 such that the flipper 48 is held in a particular position or orientation. The flipper 48 can be movable with respect to the support member 46. In one embodiment, the flipper 48 can be operably engaged with the support member 46 such that the flipper 48 can move upwards and downwards with respect to the support member 46. Such movement of the flipper 48 can permit flipping or rotating of the individually wrapped packages 16 into an upright position. The flipping or rotating can occur generally in the cross direction. In one embodiment, the flipper 48 can comprise a high coefficient of friction material or surface, small projections, an adhesive material, and/or a tack material, for
example, to help enable the flipper 48 to engage and flip the individually wrapped packages 16. Upon approach of an individually wrapped package 16 on the conveyor 40, the flipper 48 can be in a first position proximate to a surface of the conveyor 40. Once the individually wrapped package 16 is conveyed into a position in which at least a portion of the flipper 48 is underneath or engages at least a portion of the individually wrapped package 16, the flipper 48 can be moved, likely by automated movement, into a second position distal from the surface of the conveyor 40. Such movement by the flipper 48 can cause the individually wrapped package 16 to be rotated between about 70 and about 110 degrees (and specifically reciting each degree within that range) and alternatively about 90 degrees into the upright position. In one embodiment, although not illustrated, a flipper mechanism can comprise a support member and a flipper, wherein the flipper is rotatably or pivotally engaged with the support member and can move relative to the support member 46 by rotational or pivotal movement. When the flipper is rotated or pivoted relative to the support member, an individually wrapped package 16 can be moved from a position in which one of the first side 18 and the second side 20 is supported by the conveyor 40 into an upright position in which one of the other sides is supported by the conveyor 40. Those of skill in the art will recognize various alternative approaches to flipping or rotating the individually wrapped packages 16 of the present disclosure into an upright position, such as flipping or rotating by hand, rotation or flipping via gravity, and/or rotation or flipping by movement or tilting of a conveyor in a machine direction or a cross direction, for example. As such, the present disclosure is not limited to the examples set forth herein.

In one embodiment, referring to Fig. 12, after the overwrap 12 is applied to the individually wrapped packages 16 to form the large count package 10, the large count package 10 can have each longitudinal axis of each roll of product positioned generally horizontally generally in the machine direction. In one example, after the large count package 10 is moved or conveyed out of the bundler 42, it may be desirable to flip or rotate the large count package 10 about 90 degrees into a position in which each longitudinal axis of each core of each roll of product is generally in a vertical direction. The rotating or flipping can generally occur in the machine direction, in a direction opposite the machine direction, or in a direction generally perpendicular to the cross direction. In one embodiment, an orientation mechanism 50 can comprise one or more supports 52 and a biasing bar 54. The biasing bar 54 can be operatively engaged with the supports 52 (or one support) such that the biasing bar 54 is moveable relative to the supports 52. In other embodiments, the biasing bar 54 can be stationary relative to the supports 52 in configurations of large count packages 10 that can fit
under the biasing bar 54 once the large count packages 10 are flipped or rotated. The biasing bar 54 can initially be positioned a first distance away from the surface of the conveyor 40 when the large count package 10 is approaching on the conveyor 40. The biasing bar 54 can remain in such a position at least until it is contacted by the leading side of the large count package 10. In one embodiment, the biasing bar 54 can contact the leading side of the large count package 10 on a portion of the leading side above a plane extending horizontally from the center of gravity of the large count package 10 to aid in rotation of the large count package 10. Upon contact between the biasing bar 54 and the leading side of the large count package 10, the large count package 10 can begin to be rotated about 90 degrees in a direction generally opposite to the machine direction into a position in which a longitudinal axis of each core of each roll of product is in a generally vertical position. A sufficient coefficient of friction can exist between the surface of the conveyor 40 and a portion or side of the large count package 10 contacting the conveyor 40 to allow such flipping or rotation of the large count package 10. The biasing bar 54 can remain at the same position (i.e., the same distance away from the surface of the conveyor 40), or can move upwardly during contact with the leading side of the large count package 40. Whether the biasing bar 54 remains stationary or moves upwardly (i.e., away from the surface of the conveyor 40) may depend on the size and shape of the large count package 10 and/or on the number of rolls and/or stacks of rolls within the large count package 10. Depending on the height of the large count package 10 (i.e., the distance from the surface of the conveyor 40 to the top side of the large count package 10 when a longitudinal axis of each core of each roll is in the vertical position), the biasing bar 54 may or may not need to move upwards relative to the surface of the conveyor 40 so that the large count package 10 can pass on the conveyor 40 below the biasing bar 54 after the rotation. In one embodiment, the large count package 10 can be flipped or rotated into a position in which a longitudinal axis of each core of each roll is in the vertical position by hand. Those of skill in the art will recognize various alternative approaches to flipping or rotating the large count packages of the present disclosure, such as flipping or rotating by hand, rotation or flipping via gravity, and/or rotation or flipping by movement or tilting of a conveyor in a machine direction or a cross direction, for example. As such, the present disclosure is not limited to the examples set forth above.

In one embodiment, the biasing bar 54 can comprise features that allow it to temporarily engage and/or temporarily grip a portion of the leading side of the large count package 10 to enable or assist the rotation or flipping. As used in the sentence above, the term “temporarily” can mean during contact or during a portion of the contact between a portion of the biasing bar 54 and a
portion of the large count package 10. In one embodiment, the biasing bar 54 may comprise a plurality of pins or other elongate projections (not illustrated) extending therefrom that can pierce small holes in portions of the leading side of the large count package 10 or the overwrap 12 when the large count package 10 approaches and contacts the pins or elongate projections. The pins or elongate projections, through their engagement with the large count package 12, can allow the biasing bar 54 to essentially grip the large count package 10 for rotation or flipping. In one embodiment, the pins or elongate portions can have a length in the range of about 0.1 inches to about 3 inches, specifically reciting all 0.1 inch increments therebetween. In other embodiments, the biasing bar 54 can comprise an adhesive material, a tack material, and/or a high coefficient of friction material or surface to allow temporary engagement between a portion of the large count package 10 and the biasing bar 54 during flipping or rotation. Those of skill in the art will recognize various alternative approaches to temporarily gripping or engaging a portion of the large count package 10 for flipping or rotation. As such, the present disclosure is not limited to the examples set forth above.

In one embodiment, a method of packaging a plurality of rolls of products can comprise packaging at least two rolls together to form a first individually wrapped package, packaging another at least two rolls together to form a second individually wrapped package, positioning a longitudinal axis of a core of each of the at least two rolls in the first package in a generally horizontal orientation generally in a machine direction on a conveyor, and positioning a longitudinal axis of a core of each of the at least two rolls in the second package in a generally horizontal orientation generally in the machine direction on the conveyor. The method can further comprise rotating the first individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the first package is in a generally horizontal orientation, rotating the second individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the second package is in a generally horizontal orientation, and positioning the first individually wrapped package in a generally side-by-side relationship with the second individually wrapped package. The method can further comprise feeding the first individually wrapped package and the second individually wrapped package into a bundler, applying an overwrap around both of the first individually wrapped package and the second individually wrapped package, and forming seals or gusset seals on two vertically positioned sides created by a portion of the first individually wrapped package and a portion of the second individually wrapped package to create a large count package comprising the first individually wrapped package and the second individually
wrapped package. The steps recited in this paragraph can be performed in sequential order or in other orders. The method can further comprise rotating the large count package about 90 degrees after the seals or gusset seals are formed such that the longitudinal axis of each core of each roll in both the first individually wrapped package and the second individually wrapped package is in a generally vertical orientation. The large count package can then be positioned on a pallet for shipping, transport, storage, and/or display in a retail environment.

In one embodiment, the large count packages 10 of the present disclosure can comprise a handle or handle portion (hereafter handle). The handle can be formed with a portion of the overwrap 12 or can be formed of a separate component and attached to the overwrap 12. In various embodiments, the handle can be formed in one or more portions of the seals or gusset seals 14 or a separate handle can be attached to portions of one or more of the seals or gusset seals 14. Various handles and handle configurations and orientations are illustrated in U.S. Patent Appl. No. 12/967,693, filed December 14, 2010, entitled, PACKAGE WITH HANDLE. Those of skill in the art will recognize that other handles and handle configuration can be used with the large count packages 10 of the present disclosure.

The dimensions and values disclosed herein are not to be understood as being strictly limited to the exact numerical values recited. Instead, unless otherwise specified, each such dimension is intended to mean both the recited value and a functionally equivalent range surrounding that value. For example, a dimension disclosed as “40 mm” is intended to mean “about 40 mm.”

The citation of any document, including any cross referenced or related patents or patent applications, is not an admission that it is prior art with respect to any invention disclosed or claimed herein or that it alone, or in any combination with any other reference or references, teaches, suggests or discloses any such invention. Further, to the extent that any meaning or definition of a term in this document conflicts with any meaning or definition of the same term in a document cited herein, the meaning or definition assigned to that term in this document shall govern.

While particular embodiments of the present disclosure have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the present disclosure. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of the present disclosure.
What is claimed is:

1. A large count package of rolled products, the large count package comprising:
   a. a generally cuboid shape comprising six sides, the sides being arranged in three pairs of generally parallel opposing sides;
   b. a film overwrap enclosing a plurality of individually wrapped packages of rolled products, each package of the rolled products comprising at least two rolled products, each rolled product having a core defined therethrough;
   c. one of the first pair of opposing sides being a top side and the other of the first pair of opposing sides being a bottom side;
   d. one of the second pair of opposing sides being a front side and the other of the second pair of opposing sides being a back side;
   e. one of the third pair of opposing sides being a left side and the other of the third pair of opposing sides being a right side;
   f. the individually wrapped packages being disposed in the large count package with a longitudinal axis of each of the cores of each of the rolled products being generally parallel with a plane of each of the front, back, left, and right sides;
   g. the overwrap being sealed with two seals, one seal being disposed on each of the top and bottom sides; and
   h. the individually wrapped packages each comprise two generally flat sides, each side having a plane that is positioned generally parallel to the longitudinal axis of each of the cores and that is positioned generally perpendicular to a longitudinal axis of one of the seals.

2. The large count package of Claim 1, wherein the rolled products are any of toilet tissue and paper towels.

3. The large count package of Claim 1, wherein the large count package comprises at least six rolled products.

4. The large count package of Claim 1, wherein the individually wrapped packages are at least partially viewable through the overwrap, wherein at least one of the generally flat sides of the individually wrapped packages comprises point-of-sale indicia, and wherein the individually
wrapped packages are oriented such that, at least on one side of the large count package, the point-of-sale indicia is visible through the overwrap.

5. The large count package of Claim 1, wherein the individually wrapped packages each contain at least two vertically oriented stacks of rolled products.

6. The large count package of Claim 5, comprising at least three individually wrapped packages, wherein the three individually wrapped packages are configured in a side-by-side relationship.

7. The large count package of Claim 1, wherein the planes of each of the generally flat sides intersect a plane formed by connecting the longitudinal axis of the seal on the top of the large count package and the longitudinal axis of the seal on the bottom of the large count package.

8. The large count package of Claim 1, wherein the left side, the right side, the front side, and the back side each comprise at least 85% printable area, and wherein none of the left side, the right side, the front side, and the back side comprise a seal.

9. A pallet comprising:
   a. a surface for supporting products, the pallet having four sides, each side comprising an edge positioned proximate to the surface, the edges defining a surface perimeter;
   b. a plurality of large count packages of rolled products supported by the surface, each of the large count packages comprising:
      i. six sides, the sides being arranged in three pairs of generally parallel opposing sides;
      ii. an overwrap enclosing a plurality of individually wrapped packages of rolled products, each package of the rolled products comprising at least two rolled products, the rolled products each defining a core therethrough;
      iii. one of the first pair of opposing sides being a top side and the other of the first pair of opposing sides being a bottom side;
      iv. one of the second pair of opposing sides being a front side and the other of the second pair of opposing sides being a back side;
v. one of the third pair of opposing sides being a left side and the other of the third pair of opposing sides being a right side;
vi. the individually wrapped packages being disposed in the large count package with a longitudinal axis of each core of each of the rolled products being generally parallel to a plane of each of the front, back, left and right sides;
vii. the overwrap being sealed with two seals, one seal being disposed on each of the top and bottom sides; and
viii. the individually wrapped packages each comprise two generally flat sides, each side having a plane that is positioned generally parallel to the longitudinal axis of each of the cores and that is positioned generally perpendicular to a longitudinal axis of one of the seals;
c. each of the large count packages being disposed on the surface such that no portion of any of the large count packages extends more than about 4 inches outside of the surface perimeter; and
d. the large count packages and pallet being wrapped with a stabilizing film such that the stabilizing film wraps and stabilizes the large count packages and a portion of the stabilizing film extends below each edge and onto each pallet side.

10. The pallet of Claim 9, wherein at least one of the large count packages comprises at least six rolled products.

11. The pallet of Claim 9, wherein at least one of the individually wrapped packages is viewable through the overwrap, wherein at least one of the generally flat sides of the individually wrapped packages comprises point-of-sale indicia, and wherein the individually wrapped packages are oriented such that, at least on one side of the large count package, the point-of-sale indicia is visible through the overwrap.

12. The pallet of Claim 9, wherein the individually wrapped packages each comprise at least two vertically oriented stacks of rolled products.

13. The pallet of Claim 12, wherein each large count package comprises at least three individually wrapped packages.
14. The pallet of Claim 9, wherein the left side, the right side, the front side, and the back side comprise at least 85% printable area, and wherein none of the left side, the right side, the front side, and the back side comprise a seal in the overwrap.

15. The pallet of Claim 9, wherein, when viewing the bottom side, the number of rolls of rolled product in a first direction is greater than the number of rolls of rolled product in a second direction.

16. A pallet comprising a plurality of large count packages supported on a surface thereof, each large count package comprising at least two individually wrapped packages of rolled products, each rolled product having a hollow core defined therethrough, each individually wrapped package of rolled products comprising at least two stacks of two rolls, wherein the cores of each stack of two rolls are generally parallel and aligned, and wherein each adjacent stack of rolls lies generally in the same plane as the other stack within the individually wrapped package, the large count package comprising an overwrap of polymer film that encloses the individually wrapped packages of rolled products, wherein the overwrap is bound with a seal on two sides, one of the seals being on a side supported by the pallet, and the other of the seals being on the side opposite the side supported by the pallet, and wherein the individually wrapped packages each comprise two generally flat sides, each side having a plane that is positioned generally parallel to the longitudinal axis of each of the cores and that is positioned transverse to a longitudinal axis of one of the seals.

17. A method of packaging a plurality of rolls of products having cores defined therethrough, the method comprising:
   a. packaging at least two rolls together to form a first individually wrapped package;
   b. packaging another at least two rolls together to form a second individually wrapped package;
   c. positioning a longitudinal axis of a core of each of the at least two rolls in the first individually wrapped package in a generally horizontal orientation generally in a machine direction on a conveyor;
d. positioning a longitudinal axis of a core of each of the at least two rolls in the second individually wrapped package in a generally horizontal orientation generally in the machine direction on the conveyor;

e. rotating the first individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the first individually wrapped package is in a generally horizontal orientation;

f. rotating the second individually wrapped package into an upright position where the longitudinal axis of the core of each of the at least two rolls in the second individually wrapped package is in a generally horizontal orientation;

g. positioning the first individually wrapped package in a generally side-by-side relationship with the second individually wrapped package;

h. feeding the first individually wrapped package and the second individually wrapped package into a bundler;

i. applying an overwrap around both of the first individually wrapped package and the second individually wrapped package; and

j. forming seals on two vertically positioned sides created by a portion of the first individually wrapped package and a portion of the second individually wrapped package to create a large count package comprising the first individually wrapped package and the second individually wrapped package.

18. The method of Claim 17, comprising performing steps a-j in order.

19. The method of Claim 17, comprising rotating the large count package about 90 degrees subsequent to step j such that the longitudinal axis of each core of each roll in both the first individually wrapped package and the second individually wrapped package is in a generally vertical orientation.

20. The method of Claim 17, comprising positioning the large count package on a pallet.
Fig. 9