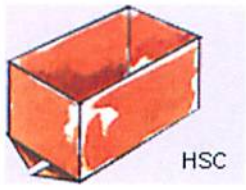
Corrugated carton styles



Corrugated Box Styles Overview

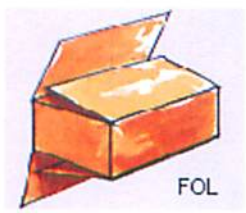
Over 90 percent of all goods in most developed countries are shipped in corrugated boxes. These boxes can be used for everything from apples to washing machines. By changing the design of corrugated boxes, combining layers of corrugated or adding interior packaging, a corrugated box can be manufactured to efficiently ship and store almost any product.

Many standard box styles can be identified in three ways: by a descriptive name, by an acronym based on that name, or by an international code number. For example, a Regular Slotted Container could also be referred to as an RSC or as #0201.

The numerical code system, known as the International Fiberboard Case Code, was developed by the European Solid Fiberboard Case Manufacturer's Association (ASSCO) to avoid confusion when communicating in different languages.

The International Corrugated Case Association (ICCA) has adopted this code. Copies of the International Fiberboard Case Code are available from FEFCO.

There are many standard corrugated box styles- so many, in fact, that it is impossible to describe them all here. As you look through the following style descriptions, please keep in mind that there are other standard styles to choose from. In addition, corrugated boxes can be custom-designed to meet the specific needs of any box user. A manufacturers representative will have more information about additional box style options.



The following drawings are grouped into styles according to broad categories: Slotted Boxes, Telescope Boxes, Folders, Rigid Boxes (Bliss Boxes), Self-Erecting Boxes and Interior Forms.

Slotted Boxes: International Fiberboard Case Code: 02 Series

Slotted Box styles are generally made from one piece of corrugated or solid fiberboard. The Blank is scored and slotted to permit folding. The box manufacturer forms a joint at the point where one side panel and one end panel are brought together. Boxes are then shipped flat to the user. When the box is needed, the box user squares up the box, inserts product and closes the flaps. The International Fiberboard Case Code refers to these styles as Slotted type Boxes, While carrier classifications call them Conventional Slotted Boxes.

0200 Half Slotted Container (HSC)
Same as Regular Slotted Container without one set of flaps

0201 Regular Slotted Container (RSC)
All flaps have the same length, and the two outer flaps (normally the lengthwise flaps) are one-half the containers width, so that they meet at the center of the box when folded. If the product requires a flat, even bottom surface, or the protection of two full layers, a fill in pad can be placed between the two inner flaps.

This is a highly efficient design for many applications. There is very little manufacturing waste.

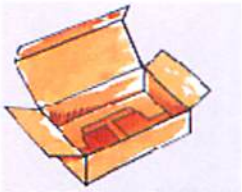
manufacturing waste.

The RSC can be used for most products and is the most common box style.


SFF

0202 Overlap Slotted Container (OSC)
All flaps have the same length. The outer flaps overlap by one inch or more.

This style is especially resistant to rough handling. Stacked on its bottom panel, the overlapping flaps provide added cushioning. Stacked on its side, the extra thickness provides stacking strength.


1-2-3 Bottom Container with Tuck Top

0203 Full Overlap Slotted Container (FOL)
All flaps have the same length (the width of the box). When closed, the outer flaps come within one inch of complete overlap.

This style is especially resistant to rough handling. Stacked on its bottom panel, the overlapping flaps provide added cushioning. Stacked on its side, the extra thickness provides stacking strength.

0204 Center Special Slotted Container (CSSC)
Inner and outer flaps are cut to different lengths. Both pairs of flaps meet at the center of the box.

The style is especially strong because both the top and bottom have double the thickness of corrugated board. The inner flaps with no gap, provide a level base for the product.


1-2-3 Bottom Container with RSC Top

A variation of this box is the Side Special Slotted Container - SSS. All pairs of flaps meet, but not at the center of the box.

0205 Center Special Overlap Slotted Container (CSO)
All flaps have the same length (one-half the length of the box). The length of the box can be no more than twice its width.

When closed, the inner flaps meet at the center of the box, providing a level base and full top protection. Depending on the ratio of length to width, the outer flaps overlap at random, up to full overlap.


Full Bottom File Box, Hamper Style

Center Special Full Overlap Slotted Container (SFF)
Inner and outer flaps are cut to different lengths. When closed, the inner flaps meet at the center of the box, and outer flaps fully overlap.

With three full layers of combined board over the entire top and bottom, this style provides extra cushioning when stacked on its bottom, or extra stacking strength when stacked on its side.


Bellows Style Top and Bottom Container

0215 Snap 0r 1-2-3 Bottom Container with Tuck Top
The four flaps the form the bottom panel are die cut. To set up, the user folds the largest bottom panel first, then the two end panel is folded and pressure is applied near the center, the flap "snaps" into the slot created by the other panels.

The style is convenient for small-volume shippers who do not have automatic set up equipment. Because the bottom is not fully sealed, it may not be suitable for heavy products.


FTD

0216 Snap or 1-2-3 Bottom Containers with RSC Top
Same as 0215, replacing the tuck top configuration with RSC style Flaps.

0225 Full Bottom File Box, Hamper Style, Ft. Wayne Bottom, or

Same as 0215, replacing the tuck top configuration with RSC style Flaps.


DSC

0225 Full Bottom File Box, Hamper Style, Ft. Wayne Bottom, or Anderson Lock Bottom
When set up, this box provides an interlocking thickness on its bottom and on its end panels

0226 Bellows Style Top and Bottom Container

Telescope Boxes: International Fiberboard Case Code: 03 Series

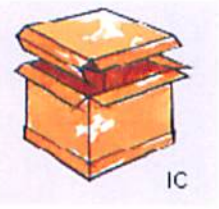
Telescope boxes usually consist of a separate top, or top and bottom, that fit over each other or a separate body. The International Fiberboard Case Code calls these boxes Telescope-Style. The truck and rail classification call them Telescope Boxes if the cover extends over at least two-thirds of the depth, and Boxes with Covers if the cover extends over less than two-thirds of the depth.


FTHS

0301 "SS" Side Slotted

0301 "ES" End Slotted

0301 Full Telescope Design Style Container (FTD)
The two-piece box is made from two scored and slotted blanks (trays)


IC

0310 Design Style Container with Cover (DSC)
A tube forms the body. The two interchangeable covers are usually design style. The pieces are shipped flat to the user, who opens the tube and sets up the covers.

This style is frequently used for tall or heavy products that would be difficult to lower into a box. The item is placed on the bottom cover, and the tube is lowered over the product.

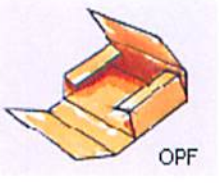

Octagonal Double Cover Container

0320 Full Telescope Half Slotted Container (FTHS)
The two-piece box is made from two half slotted containers.

0325 Interlocking Double Cover Container (IC)
Flanges on the body, folded together (interlocked) with flanges on the covers, are held in place with strapping.

The style offers the same ease of packing provided by the double-cover box, with the assurance that the covers will not separate from the body.

This feature is advantageous for moving large or heavy products such as washers, dryers, refrigerators, water heaters, vending machines and some hazardous materials.


OPF

0351 Octagonal Double Cover Container
Same as 0310 with additional panels.

Folders: International Fiberboard Case Code: 04 Series

For folders, one or more pieces of combined board provide an unbroken bottom surface, and are scored to fold around a product. The International Fiberboard Case Code describes them as Folder-Type Boxes. The carrier classification uses the term Folders.


OPF with Air Cell

0401 One Piece Folder (OPF)
One piece of board is cut so that it provides a flat bottom, with flaps forming the sides and ends, and extensions of the side flaps meeting to form the top.

One piece of board is cut so that it provides a flat bottom, with flaps forming the sides and ends, and extensions of the side flaps meeting to form the top.


Wrap Around Blank

0403 One Piece Folder with Air Cell/End Buffers, Protect All or Book wrap

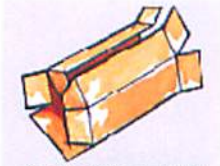
0406 Wrap Around Blank
A wrap-around blank is formed blank into a box by folding it tightly around a rigid product. The positioning of the product, folding and sealing are performed by automatic equipment.

The finished box is essentially an RSC, turned on its side so that the bottom and top are unbroken. The joint, however, is not formed until the final closure.


FPF

0410 Five Panel Folder (FPF) or Harness Style Five-Panel Folder
A tube forms the body. The two interchangeable covers are usually design style. The pieces are shipped flat to the user, who opens the tube and sets up the covers.

This style is frequently used for tall or heavy products that would be difficult to lower into a box. The item is placed on the bottom cover, and the tube is lowered over the product.


Center Seam FPF

0411 Center Seam (FPF)

0415 One Piece Folder (OPF) with Dust Flaps

0416 One piece Folder (OPF) Die Cut with Dust and Tuck Flaps

0422 Roll End Tray, Walker Lock Tray or Tray with Self Locking Ends
Formed from a single piece of combined board, the design features an unbroken, and several; layers of corrugated in the end panels.

Trays are not shipping containers, but they are frequently used as inner containers for parts, delicate produce, letter mail and other products, or as elements of display stands.


OPF with Dust Flaps

0427 Roll Tray with Locking Cover

0457 Self Locking Tray, Joint Less Tray

0460 Display Tray or High Wall Tray

0470 Roll end Tray with Tuck Top and Interior Bottom Flaps or Reverse Walker Lock with Inside Tuck Top


OPF Die Cut

Rigid Boxes (Bliss Boxes): International Fiberboard Case Code: 06 Series

0601A Bliss Style Container with End Flaps

0601B Bliss Style Container with End Flaps and End Panel Legs

0606A Bliss style Container

0606B Bliss Style Container With End Panel Legs


Roll End Tray

Self-Erecting Boxes: International Fiberboard Case Code:07 Series

Self-Erecting Boxes: International Fiberboard Case Code:07 Series

Roll End Tray with Locking Cover

0711 Pre-glued Auto Bottom with RSC Top Flaps
The top panels of the box are usually those of a regular slotted container.

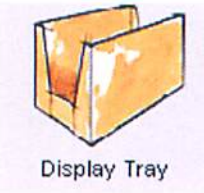
For a telescope-style box, two self-erecting pieces can be used. (International Fiberboard Case Code 0714).

0760 Self Erecting Six Corner Tray

Interior Forms: International Fiberboard Case Code: 09 Series

Self Locking Tray

Liners, tubes, pads, build-ups, dividers, partitions and other inner pieces can be made in an infinite variety of ways to separate or cushion products, to strengthen the box or to prevent product movement by filling voids. This may be simple rectangles, or scored, slotted, scored and slotted, or die cut shapes. Many of the common interior forms have been given International Fiberboard Case Code numbers. The carrier classifications provide specifications for some pieces used in the packing of glassware and other fragile articles.



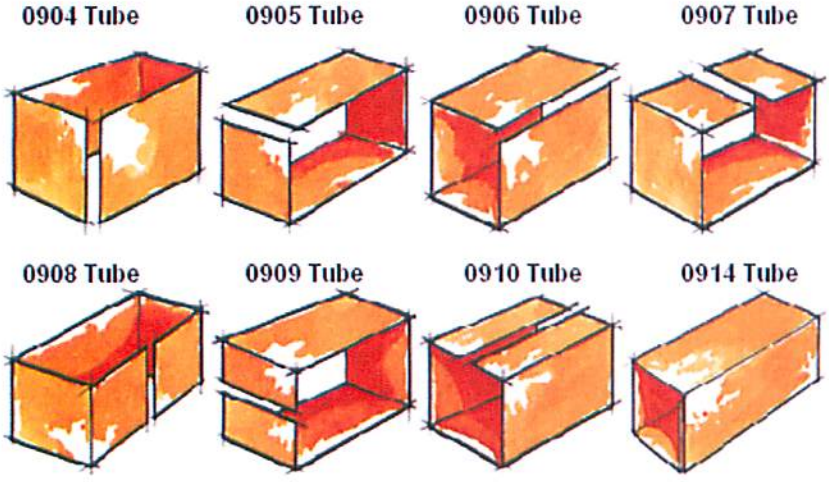
Display Tray

0900 Pads
Pads are plain shapes of corrugated or solid fiberboard. They can be used to fill the space between the inner flaps of an RSC, to completely cover the bottom or top of a box, or to separate layers of product. Vertically, they can be used to separate products.

Roll End Tray with Tuck Top

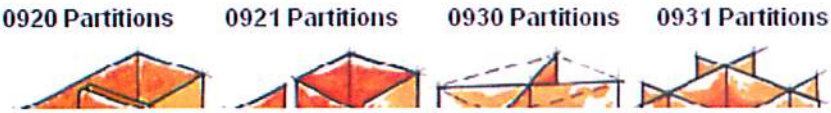
Tubes are scored rectangles, folded and sometimes joined with tape to form a multisided structure open at both ends. When used as sleeves for individual items such as glassware, adjacent shell provide double protection.

Bliss Style Container with End Flaps



Bliss Style Container with End Flaps and End Panel Legs

Partitions
Partitions or divides provide a separate cell for each item in a box. They are used primarily for glassware and other fragile articles.



0920 Partitions

0921 Partitions

0930 Partitions

0931 Partitions

0933Partitions

0935Partitions

0965 Inner Packing Piece

0966 Inner Packing Piece

0967 Inner Packing Piece

Scored and a folded inner packing pieces can take many shapes. Included in this group are built-up pads consisting of multiple pieces glued together. Inner packing pieces are used for cushioning, suspension and separation, and to fill voids. The suspension function holds the product away from the walls of the box to lessen the impact of drops or bumps. Completely filling the voids created by irregularly shaped products adds strength to the box.

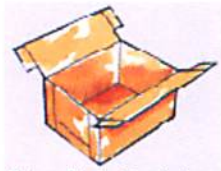
Inner Packing Forms are usually die cut to position and support irregular products form below, or lock them into position from above. Alternatively, forms can be place on two sides or ends of a product. Some inner packing forms are extensions of the box flaps.

Bulk Bins

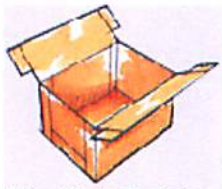
The bulk bin is a large corrugated fiberboard tube of half-slotted body, with one or two covers, frequently of the interlocking type.

The distinction between a box and a bulk bin is not defined in the box style itself, but usually refers to the quantity of the contents. The container for 40 pounds of a granular product, or a single refrigerator, is a box; the container for 3000 pounds of a granular product ("in bulk"), or 500 Towels ("loose" products) or small packages is a bulk box.

Some carriers encourage the use of bulk bins to consolidate smaller packages and reduce handling time. However, the customer must be capable of handling the bulk at its ultimate destination.



Bliss Style Container



Bliss Style Container With End Panel Legs

Pre-glued Auto Bottom with RSC Top Flaps

Pads

Your options are limitless

Many standard box styles can be identified in three ways: by a descriptive name, by an acronym based on that name, or by an international code number known as the International Fiber board Case Code system. There are so many corrugated box styles; it's impossible to list them all here. This sampling gives you a good idea for the range of possibilities; plus, keep in mind that corrugated boxes can be custom designed to meet most any need.

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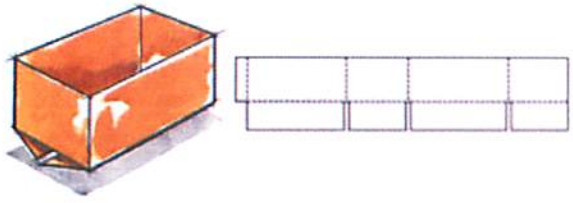
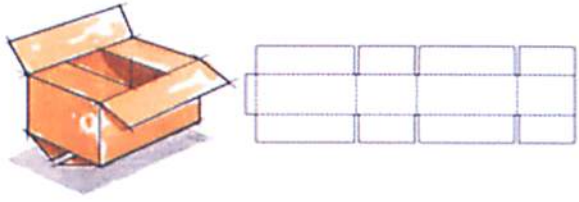
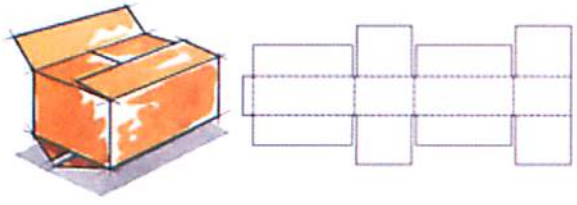
Half Slotted Container (HSC)



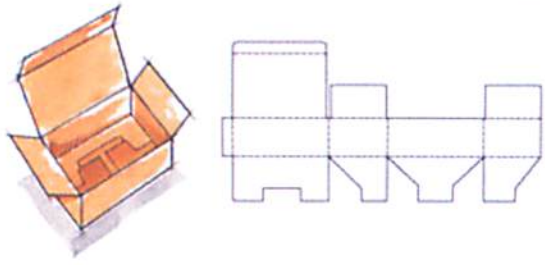
Regular Slotted Container (RSC)



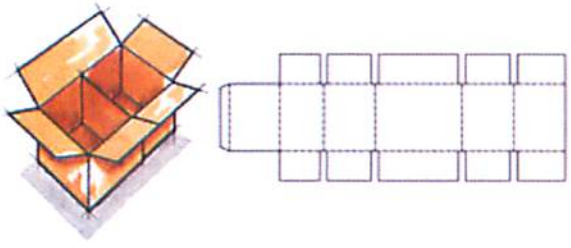
Center Special Slotted Container (CSSC)



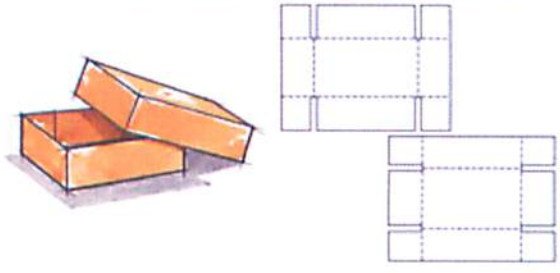
Snap or 1-2-3 Bottom Container with Tuck Top



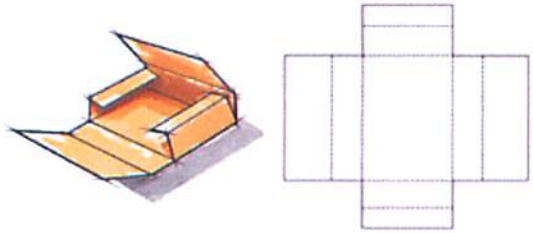
Integral Divider Container, RSC with Self Divider



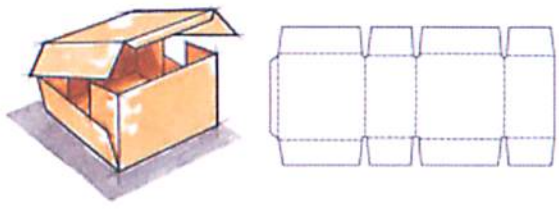
Full Telescope Design Style Container (FTD)



One Piece Folder (OPF)

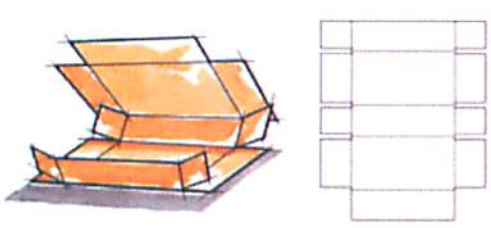


Wrap Around Blank

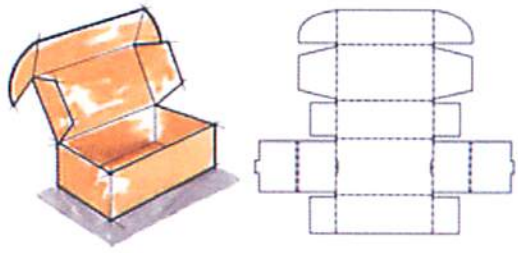


Five Panel Folder (FPF) or Harness Style

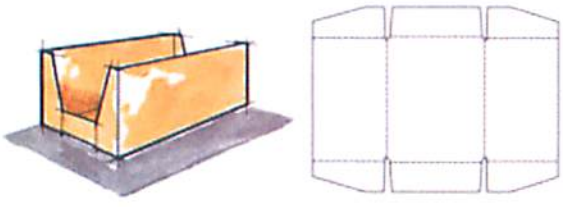
Roll End Tray with Locking Cover



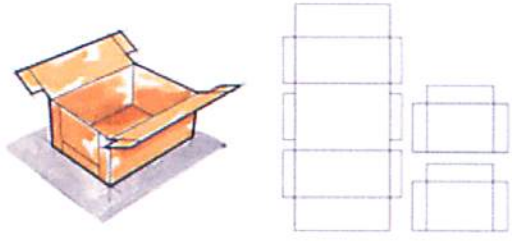
Display Tray or High Wall Tray



Bliss Style Container



Self-Erecting Six Corner Tray



Pre-Glued Auto Bottom with RSC Top Flap