



THE ECMA CODE of FOLDING CARTON DESIGN STYLES

Revised edition
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Introduction

The publication of this completely revised edition of the ECMA Code of Folding Carton Design Styles is in pursuit of one of ECMA's major goals and commitments: to provide the carton making industry with convenient and up-to-date common standards that will facilitate clear communication at all levels of design and manufacture.

Originally published in 1967, the first ECMA Code was a pioneering work, documenting the then-pre-dominant constructions long-seam-glued designs. At that time, computer-aided design was new to the industry.

Changing manufacturing and market demand

During the ensuing decades, however, new design and production techniques have been rapidly and systematically introduced, influencing every step in the process of the design and manufacture of folding cartons. The ECMA Code was revised in 1992 to respond to both the dramatic changes in the industry itself and the requirements of carton makers' customers.

Digital presentation delivers new functionalities

With this new, completely revised edition, ECMA and the folding carton industry have acknowledged the need to embrace the digital age, and are proud to present the first digital version of the ECMA Code of Folding Carton Design Styles.

In addition to many functionalities to meet the needs of today's design and manufacturing practices, users can now view the folding sequence of the most common ECMA design styles via an interactive interface.

Additionally, the original ECMA designs have been updated; drawing symbols for lines have been introduced, set-up methods for the packaging are evaluated; additional languages are included and, perhaps most importantly, all the generic design drawings can now be exported in a CAD-CAM-friendly format.

Users can also now upload their own customised designs to this application, making this electronic version of the standard a really exceptional tool for promotional and educational purposes.

Download a printable version

A printable version of the ECMA Code, in pdf format, along with important information related to the folding carton industry, is available in the library section of the CD.

ECMA wishes all users success with this new release of a standard work of reference, and hopes that it will become an indispensable tool for achieving optimal results in the design and manufacture of folding cartons.

ECMA Code of Folding Carton Design Styles: the goals

- To be the industry's standard reference and official coding system, providing convenient and up-to-date common standards that will facilitate clear communication at all levels of design and manufacture.
- To group design styles logically in a limited number of group categories.
- To provide generic design drawings and folding sequences for the most frequently-used design styles.
- To be a promotional instrument for the folding carton manufacturing industry, demonstrating its versatility, adaptability, and creativity.
- To be a learning tool that supports education and training.
- To be the industry-standard archive of designs to be used as the reference platform in CAD-CAM structural design systems.
- To become the 'ideas book' for carton makers through creating the possibility to upload customised design and variations on existing designs.

Important note:

The 'non-goals' of the ECMA Code

The ECMA Code was never developed with the intention of becoming a mandatory construction manual or, in this case, mandatory design software. The drawings of the folding carton design styles used to compose the ECMA Code are purely generic. For ease of interpretation and understanding, and so as not to constrain the creativity of designers, some details and some derivatory design styles are not specified or shown.

It is therefore the responsibility of the users of the ECMA Code to verify which additional details are needed for a specific packaging construction.

ECMA and its members explicitly disclaim any responsibility in this respect .

Intellectual Property and Patented designs

Most of the cartons illustrated in this revised ECMA Code were also included in previous editions, and all the cartons illustrated have been on the market for many years. In their basic configurations as illustrated in this edition of the ECMA Code, all the designs can therefore be considered to be in the public domain. However, users remain responsible for checking prior to use whether specific solutions are patent and copyright protection free.

ECMA will not accept any responsibility in this respect.

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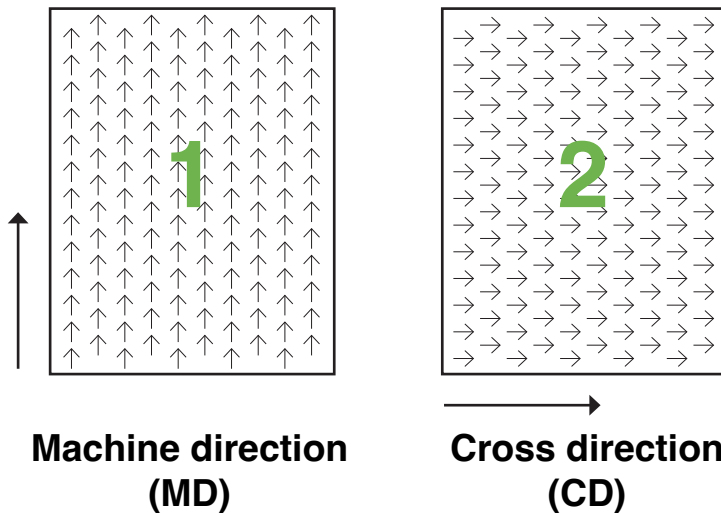
The ECMA coding system and how to use it

1. Drawing symbols

Line styles:

Drawing symbol	Line style code	Description
—————	CL	Contours of erected boxes or cutting lines of blanks
- - - - -	FL	Crease or folding line
.....	PL	Perforation line

Fibre direction indication:



2. Defining the dimensions of a package

The dimensions of a folding carton package are primarily dictated by three measurements - A, B and H - which indicate the dimensions of the packaging in millimetres (mm). Measurements are taken from centre to centre of the folding or creasing lines. It is recommended that the dimensions are determined using a flat, unfolded cutout of the packaging.

The outer dimensions of a folding carton package are also important in situations where the folding carton is an integrated part of a broader packaging concept, or when a multiple of the folding cartons are required to fit into a transit packaging container.

The dimensions of a folding carton are always given in the following pattern : A x B x H

A and B are the dimensions of the base of the packaging. H is the height of the packaging. For telescopic packaging designs and multi-part packaging designs, the dimensions are given for each part of the packaging.

Depending on the type of packaging, the dimensional indicators A,B and H are allocated in a different way.

The following rules apply:

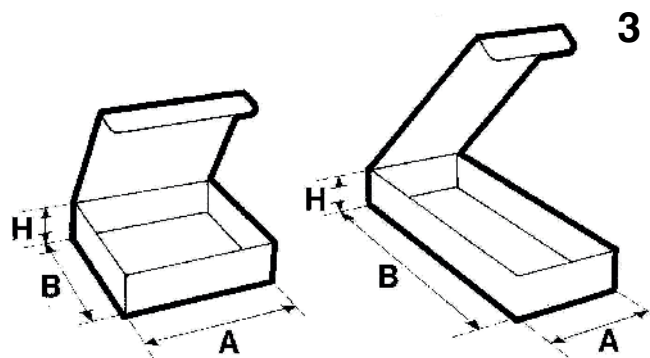
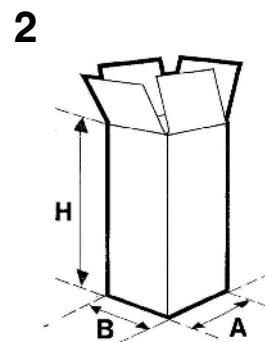
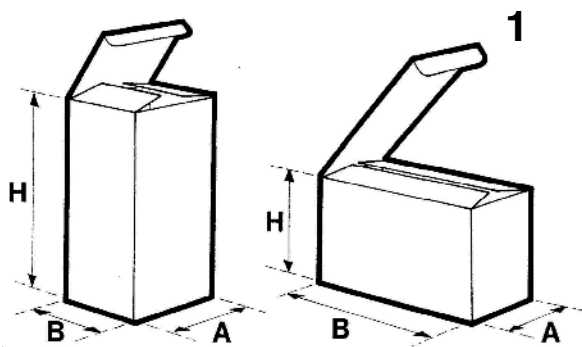
1. Folding cartons with top and/or bottom closure systems/covers

A = the dimension at the base of the packaging which is parallel to the hinge of the flap which closes last.

B = the second dimension at the base of the packaging.

H = the height, the perpendicular distance between the flaps which are closed first at the top and the bottom (the side flaps) of the erected packaging, or the height between the base and the cover.

See illustrations 1, 2, and 3:



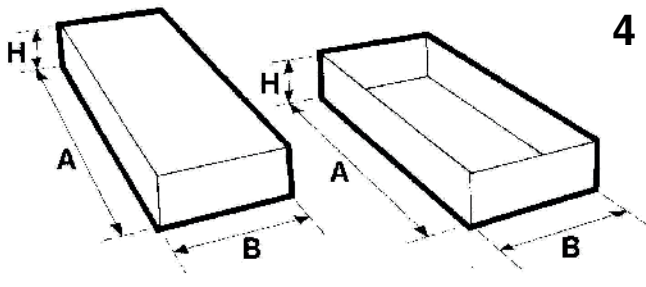
2. Folding cartons without a cover (tray type)

A = the longer dimension of the base of the packaging.

B = the second, shorter dimension of the base of the packaging.

H = the height of the packaging - the perpendicular measurement from bottom to top

See illustration 4:



3. Illustrations in the ECMA Code

- **Two-dimensional illustrations**

Two-dimensional (cutout) drawings show generic diecut blanks. Only the main cutting and creasing lines, and some critical details are shown. Drawings are always presented 'printed side up' (i.e. the outer side of the finished carton).

- **Three-dimensional illustrations**

Three-dimensional illustrations (wire-frame) show the package in its final ready- to-use state, complete with its main closure/opening device. With these illustrations, we aim for easy communication and understanding between customer and manufacturer of the proposed structure of the carton.

- **3D interactive presentation (only in software version)**

An interactive interface demonstrates how the package is folded, from the original 'blank' right through to its ready-to-use state. The folding sequence can either be viewed step by step, or in automatic mode. Additional functions, such as 'zoom in' and 'zoom out', 'transparent view mode', 'spin image', 'fit to page', and 'pan' are offered.

4. Set-up method or erection of the package

The use of automatic filling lines by contract packers and end users is widespread today, so it is important to take into account, and document, whether a package is to be manually or automatically erected.

Manual or Automated erection

M - usually manual erection

A - usually automated erection

M/A - can be either manual or automated

M+A - requires a combination of both

These indications are based on current practice.

5. Market segments

In the creation of these standards, the need to provide a search engine able to identify design styles per market segment was taken into account. All illustrated design styles were therefore allocated to the categories shown in the tables below.

Categories A6 and B7 include those design styles which have a general use in the food or non-food segments, but were difficult to relate to any one or more specific sub-market segments.

A. Food

1. Breakfast, cereal products
2. Cakes, biscuits, bakery products
3. Chocolate, sugar, confectionery
4. Frozen/chilled foods, ready meals, desserts
5. Wines, spirits, beers, soft drinks
6. Other foods and food products

B. Non-food

1. Cosmetics, health and beauty care
2. Cigarettes, tobacco, and accessories
3. Household cleaning, laundry products
4. Miscellaneous household products
5. Paper, stationery, related goods
6. Pharmaceuticals, medical products
7. Other Non-food products

6. Design type groupings

In view of the wide variety of many folding carton design styles, the designs have been classified in different stylistic groups. This classification is based on the main properties of the body of the package.

Group titles and their definition

There are seven different design type groups :

Group A: Long-seam-glued folding cartons with rectangular surfaces

- A glue seam in H (height) is compulsory (tube type package)
- All outer panels are at angles of 90° to each other (except gable top containers or some other sealed closures)

Group B: Non-long-seam-glued folding cartons with rectangular surfaces

- There is no long-seam-gluing (tray type package)
- All outer panels are at angles of 90° to each other

Group C: Long-seam-glued folding cartons with non-rectangular surfaces

- A glue seam in H (height) is compulsory (tube type package)
- At least one of the surfaces of the main body of the package (a panel) is not rectangular
- The height (H), or the vertical panel, does not necessarily form an angle of 90° with the base

Group D: Non-long-seam-glued folding cartons with non-rectangular surfaces

- No long-seam-gluing in H (tray type package)
- At least one of the surfaces of the main body of the package (a panel or the base) is not rectangular
- The height (H) or the vertical panel does not necessarily form an angle of 90° with the base

Group E: Product-related or integrated folding cartons

- Designed to work in combination with specific goods/products or primary package contents

Group F: Other folding carton styles

- This group comprises all styles of folding cartons that cannot be attributed clearly to one of the main groups A to E
- A specific table gives an overview of the different sub-groups, as well as a description of each design style in each sub-group (NB there is no matrix table for this group)

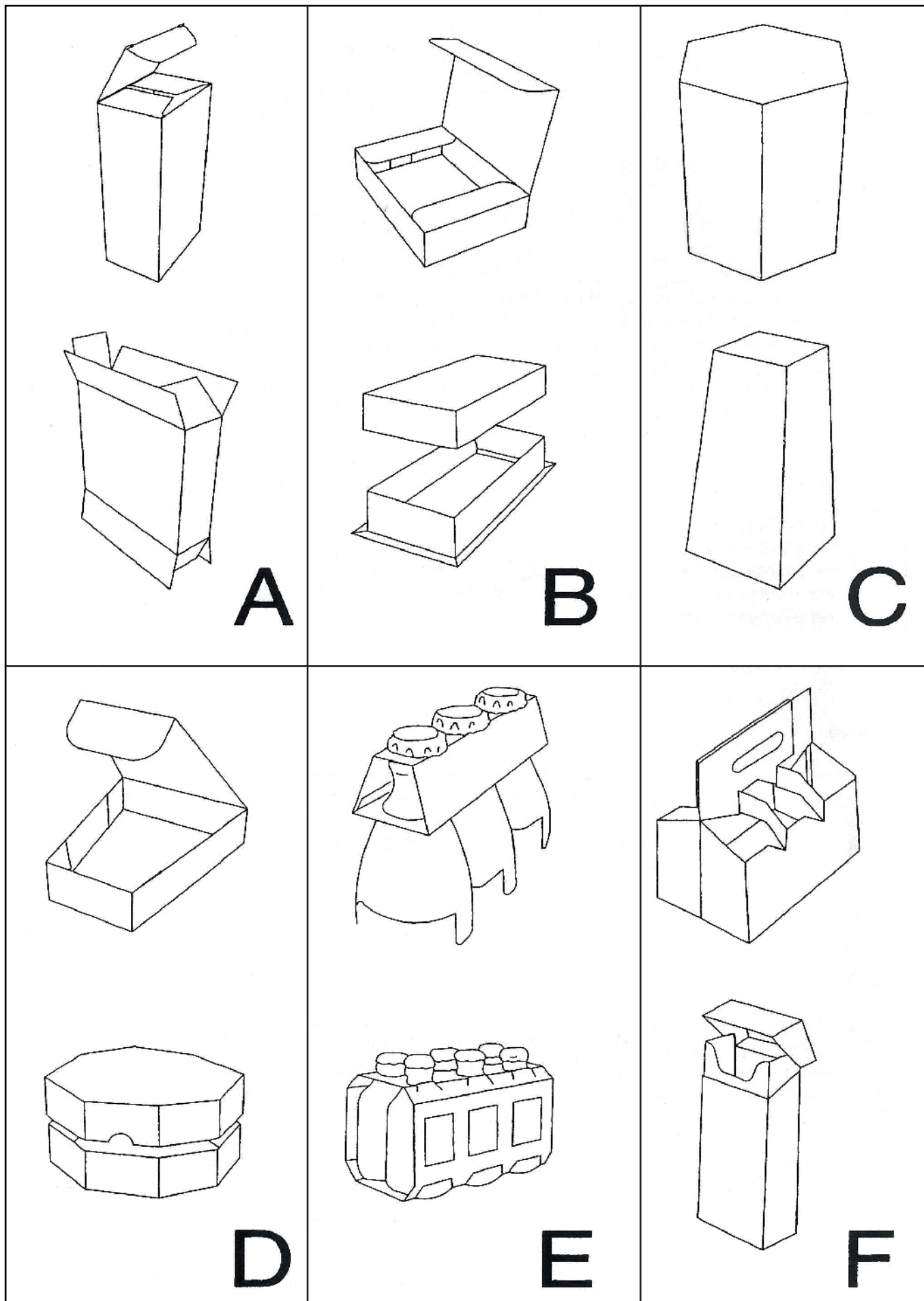
Structure of the sub-groups in Group F:

- 10 = Special design related to main Group A
- 20 = Special design related to main Group B
- 30 = Special design related to main Group C
- 40 = Special design related to main Group D
- 50 = Special design related to main Group E
- 60 = Special design with flat surfaces (panels)
- 70 = Special design with curved surfaces
- 80 = Separate inlay devices

Group X: Auxiliary devices for all groups

- Special features/specific attributes which can be used in combination with the design styles of Groups A,B,C,D,E and (some) F

7. Synoptic table



8. The coding system

To define, and to allocate a code number to, a specific design requires the use of the matrix tables developed for all the different groups.

The matrix tables list the most commonly-used practical variations or style elements for a specific group, vertically and horizontally in the rows and columns.

The matrix tables can be found at the start of every group chapter in the booklet, or can be viewed after clicking the matrix table button in the electronic catalogue.

The tables developed for groups F and X do not, of course, have the same functionality as the tables associated with Groups A to E. They are only a summary of possible designs, or special features, from which a choice may be made.

Each property, element, or detail described in the different matrix tables is connected with a numerical double-digit code.

The structure of the code

A design code always starts with a capital letter, which indicates to which primary group it belongs. It is followed by four groups of double-digit numbers, connected to variables which are specific for the group. These are described in detail in the matrix tables.

The fact that the X-group is a listing of special features/auxiliary devices which can be part of multiple packaging designs creates the need for a fifth group of double-digit numbers. Note that an X-group code cannot ever constitute a code for a complete design style.

The table below gives an overview of the variables which form the code for the design styles.

Group (Capital letter)	Variable (1st group of 2 digits)	Variable (2nd group of 2 digits)	Variable (3rd group of 2 digits)	Variable (4th group of 2 digits)	X feature (op- tional)
A	Bottom closure type	Top closure type	Panel number	Panel number	
B	Basic shape	Locking flaps system	Number of dust flaps	Type of cover	
C	Body	Basic shape	Bottom closure type	Top closure type	
D	Glued/not glued	Basic shape	Locking flaps system	Type of cover	
E	Product	Closure system	none(00)	none(00)	
F	list	list	none(00)	none(00)	
X	list				

9. How to use the ECMA Code

To use the ECMA code to allocate a code to a design style or vice versa, you need to make use of:

- The synoptic table (shown on page 12), which illustrates the typical design styles used in the different groups as well as appropriate group definition.
- Once a design style is allocated to a certain group (providing the capital letter of the design code), the first column of the associated matrix table should be consulted to define the first group(s) of double-digits numbers in the design code.
Now identify the specific package properties, elements, details, etc. following the coding instructions at the bottom of the matrix table.
- If a special feature or an auxiliary device is used in the design style, use the double-digit code for the corresponding feature illustrated in the X group as the optional fifth group of double-digit numbers.

To find a design style from an existing ECMA Code:

- The capital letter indicates the group in which the design style is listed
- Search for the matrix table corresponding to that group
- Search for the first group(s) of double-digit numbers in the columns of the matrix table, and for the following groups of double-digit numbers in the **rows** of the matrix table
- In some of the matrix tables, an 'O' indicates that the design style, and its common applications, are illustrated in the manual

General:

The hierarchy in which the codes are presented is from the simplest to the most complex styles and structures.

This applies for the initial groupings as well as for the variable elements listed in the different matrix tables.

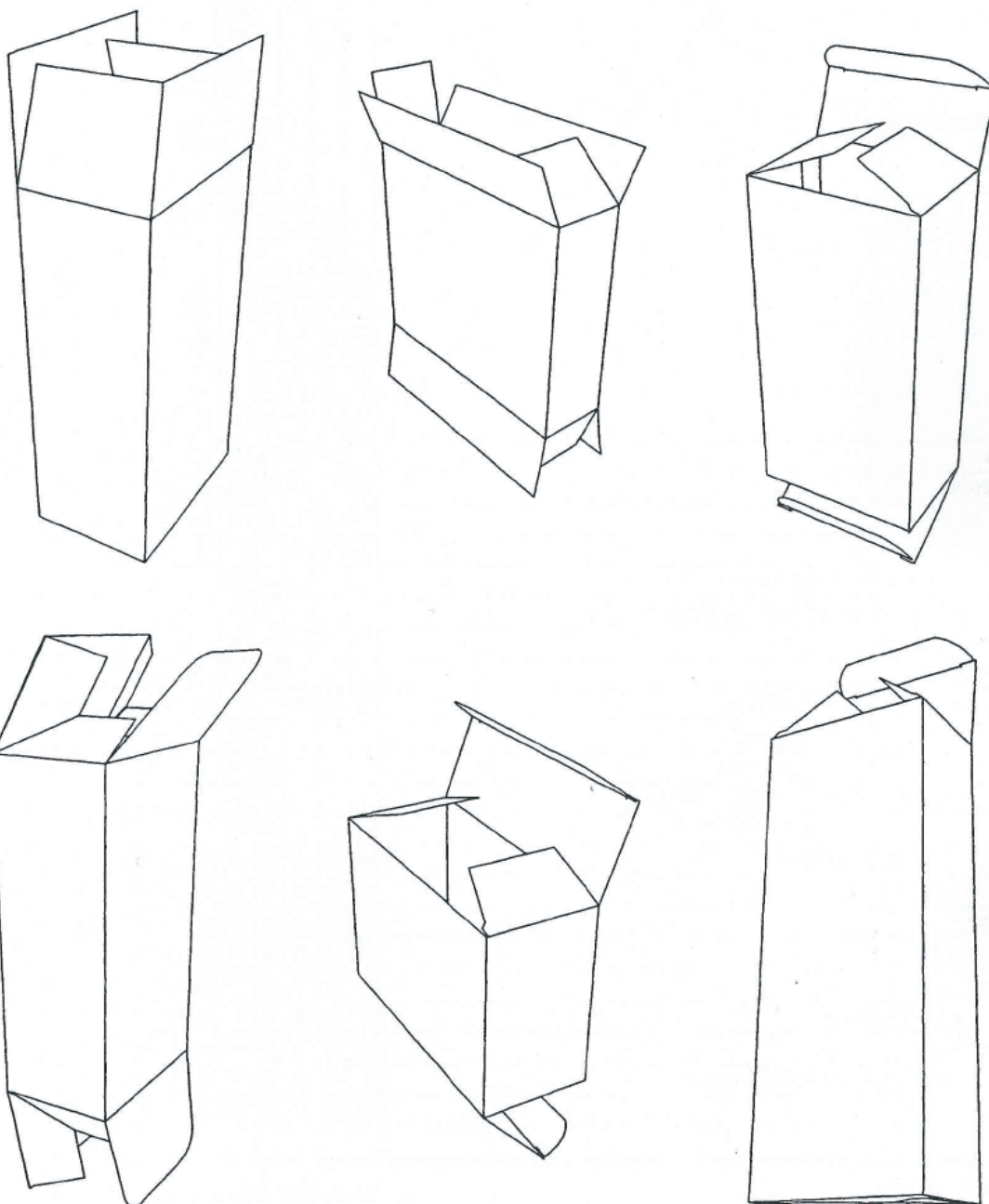
A conversion table listing all the codes of the design styles illustrated in the previous edition of the ECMA Code, alongside its new design style coding, is included.

Catalogue

Group A: Long-seam-glued folding cartons with rectangular surfaces

Definition:

- A glue seam in H (height) is compulsory (tube type package)
- All outer panels are at angles of 90° to each other (except gable top containers or some other sealed closures)



Group A : Long seam glued folding cartons with rectangular surfaces

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">TOP →</div> <div style="border: 1px solid black; padding: 5px;">↓ BOTTOM</div> </div>		without flaps	full overlapping closure system	closure system with reduced flaps size -1 flap fully covering	closure system with 4 reduced flaps	full overlapping closure system with extended back panel	tuck in flap closure system	tuck in flap closure system with extended back panel	tuck in flap closure system with scissor lock system	winged flap closure without dust flaps	winged flap closure with dust flaps	winged flap closure with dustproof flaps	claw lock closure system	self locking envelope closure system	automatic (2P glued) closure	automatic (2P glued) closure with covering flap	sealed closure	gable top closure with locking flap	buffer closure with tuck in flap	buffer closure without tuck in flap	rosette closure system	fold in closure system
		01	10	11	12	15	20	21	30	40	41	45	50	55	60	61	70	75	80	81	82	83
01	without flaps	o												o	o							
10	full overlapping closure system	o	o	o		o	o										o					
11	closure system with reduced flaps size -1 flap fully covering		o	o		o	o	o														
12	closure system with 4 reduced flaps																					
20	tuck in flap closure system	o	o	o		o	o	o				o									o	
30	tuck in flap closure system with scissor lock system																					
40	winged flap closure without dust flaps																					
41	winged flap closure with dust flaps																					
45	winged flap closure with dustproof flaps						o															
50	claw lock closure system																					
55	self locking envelope closure system	o	o	o		o	o											o				
60	automatic (2P glued) closure	o	o	o		o	o	o			o							o				
61	automatic (2P glued) closure with covering flap	o	o			o	o															
70	sealed closure																o					
75	gable top closure with locking flap																					
80	buffer space closure with tuck in flap						o															
81	buffer space closure without tuck in flap																					
82	rosette closure system																				o	
83	fold in closure system																					

more combinations possible

o : illustrated in the catalog

For special designs from Group A see Group F10

Coding of the group A

Group Name : A

1st group of 2 digits: describe the closure system used for the BOTTOM














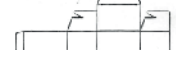







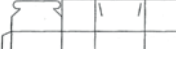




















2nd group of 2 digits: describe the closure system for the TOP

3rd group of 2 digits: describe to what panel the Extended back panel/Tuck in flap /covering flap/ last closing flap is connected for the bottom closure

4th group of 2 digits: describe to what panel the Extended back panel /tuck in flap/covering flap / last closing flap is connected for the top closure

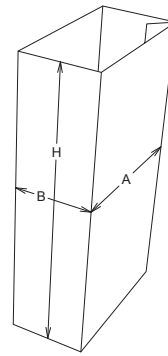
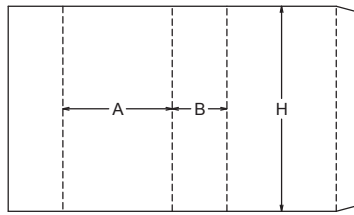
Panels are numbered from the glue seam from 1 to 4

Closure systems of Group A

01	without flaps		
10	full overlapping closure system		
11	closure system with reduced flaps size - 1 flap fully covering		
12	closure system with 4 reduced flaps		
15	full overlapping closure system with extended back panel		
20	tuck in flap closure system		
21	tuck in flap closure system with extended back panel		
30	tuck in flap closure system with scissor lock system		
40	winged flap closure without dust flaps		
41	winged flap closure with dust flaps		
45	winged flap closure with dustproof flaps		
50	claw lock closure system		
55	self locking envelope closure system		
60	automatic (2P glued) closure		
61	automatic (2P glued) closure with covering flap		
70	sealed closure		
75	gable top closure with locking flap		
80	buffer closure with tuck in flap		
81	buffer closure without tuck in flap		
82	rosette closure system		
83	fold in closure system		

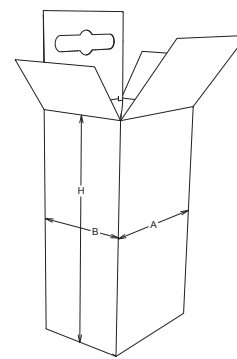
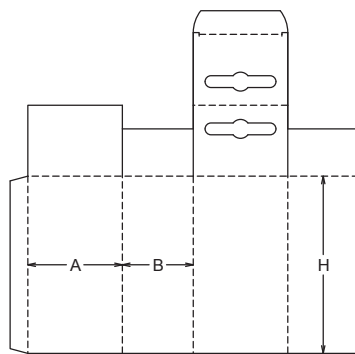
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M/A



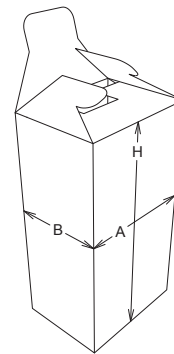
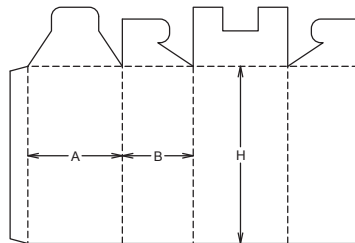
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M/A



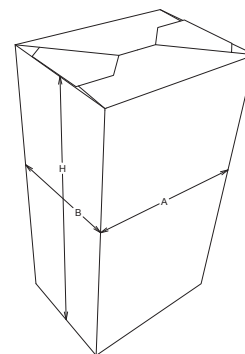
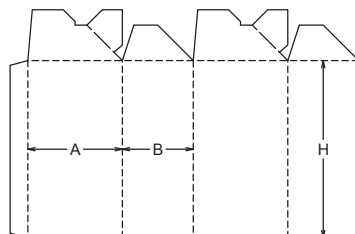
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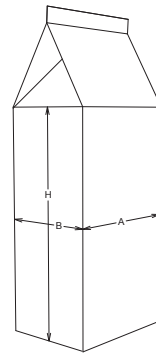
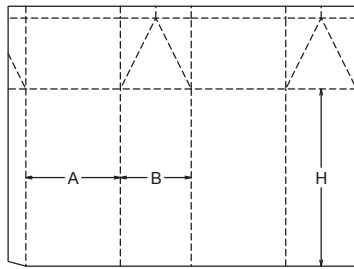
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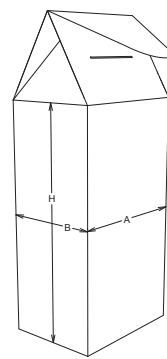
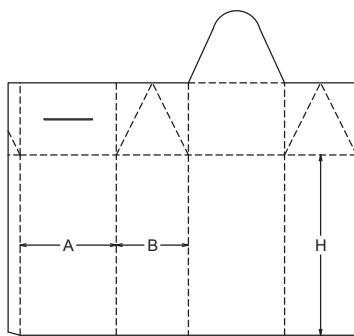
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M+A



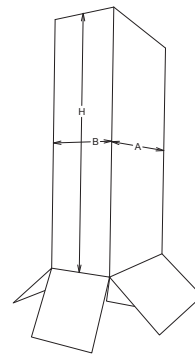
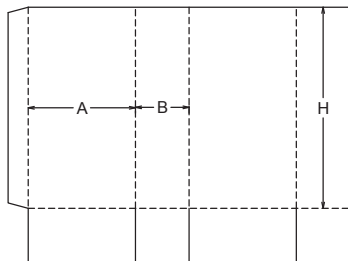
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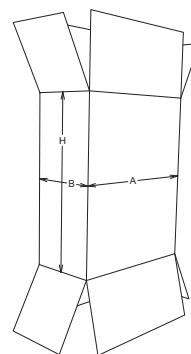
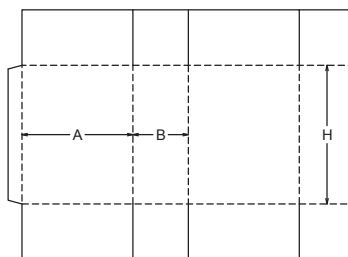
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A



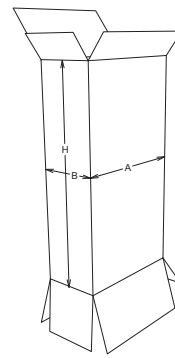
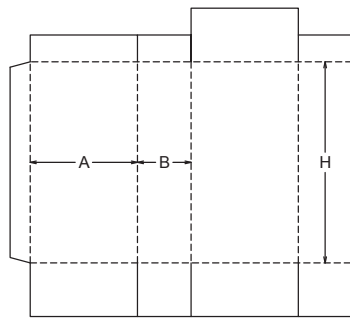
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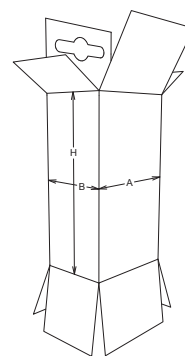
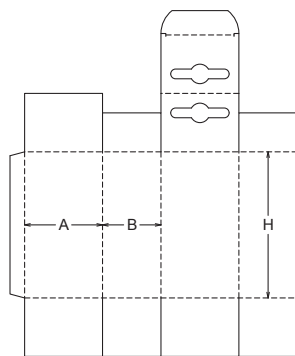
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A



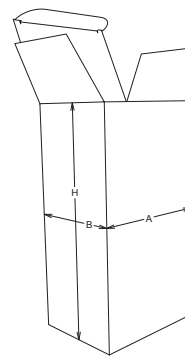
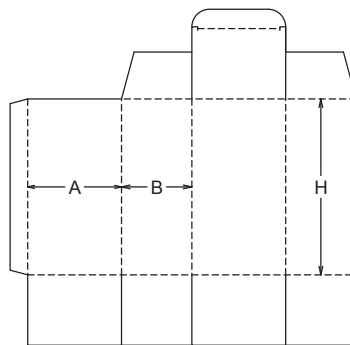
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A



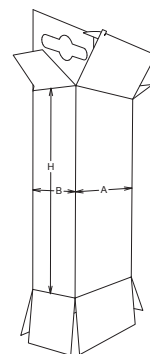
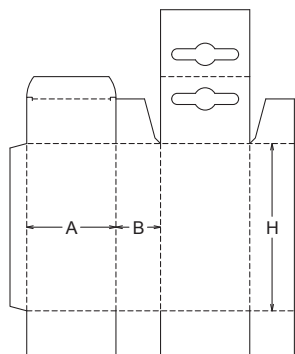
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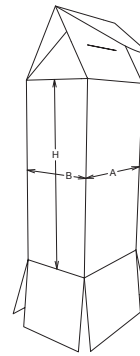
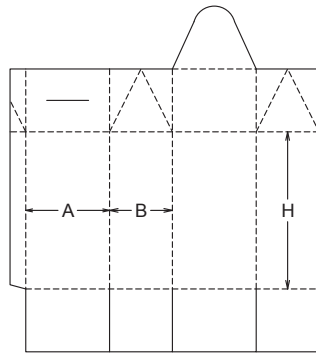
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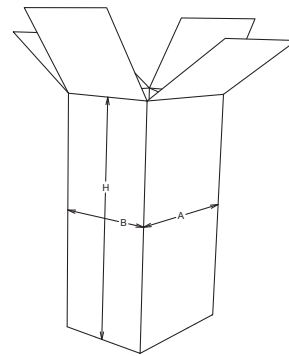
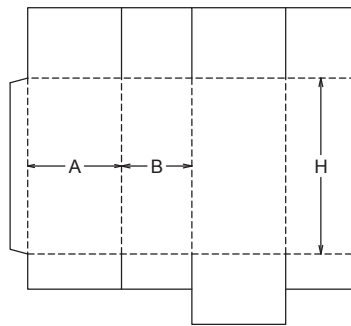
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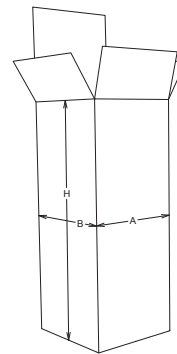
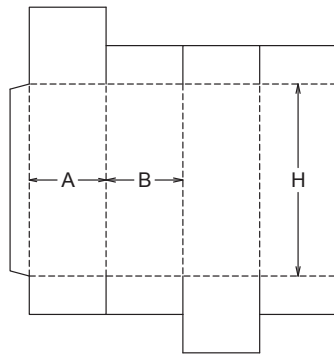
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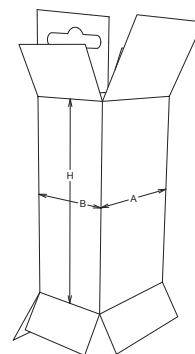
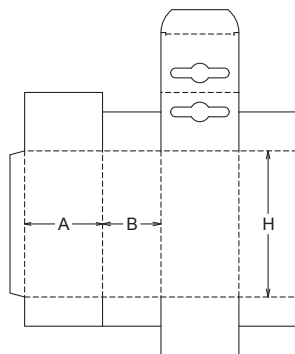
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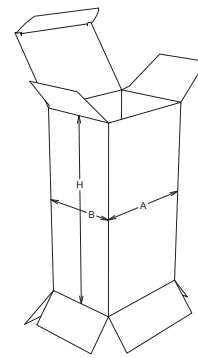
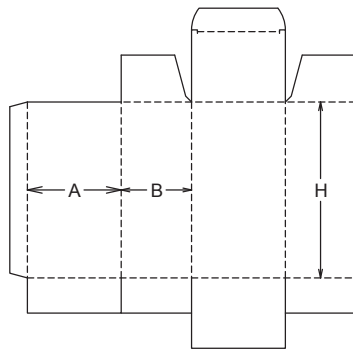
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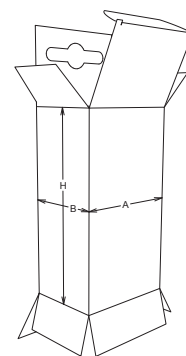
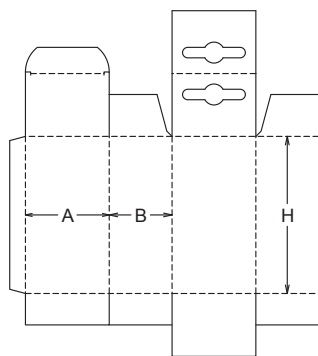
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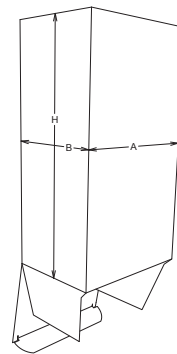
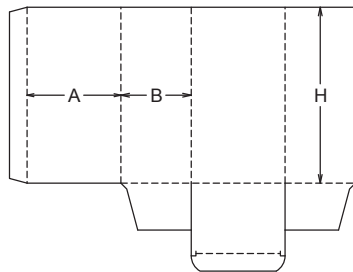
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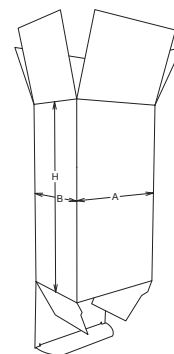
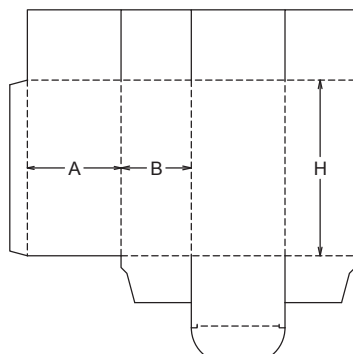
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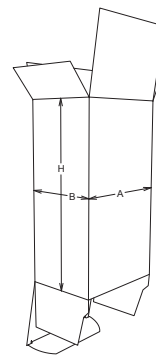
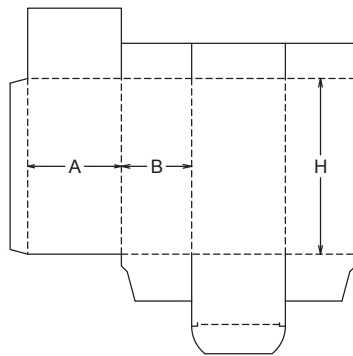
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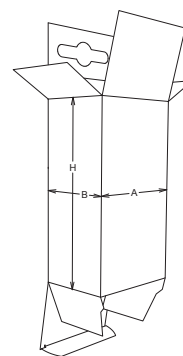
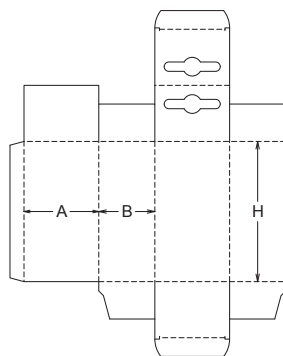
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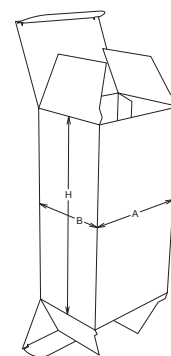
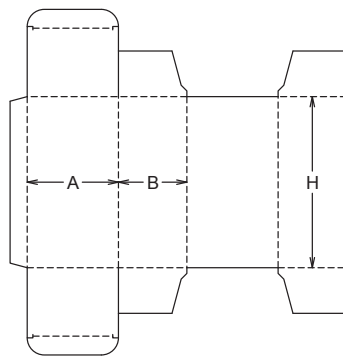
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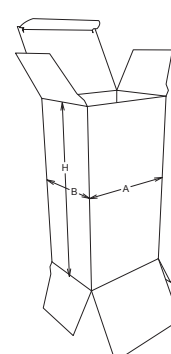
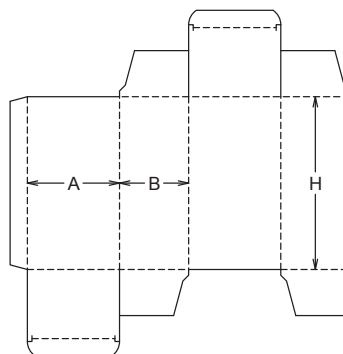
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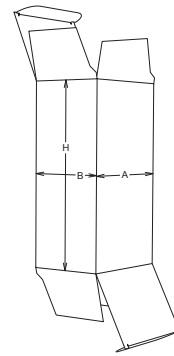
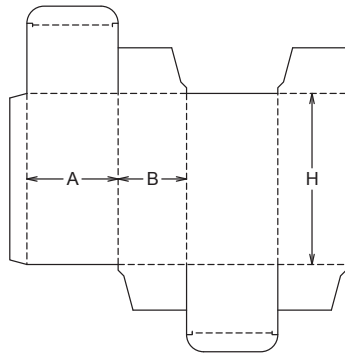
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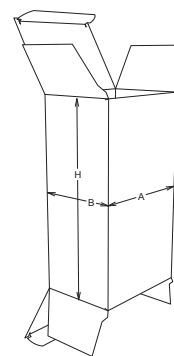
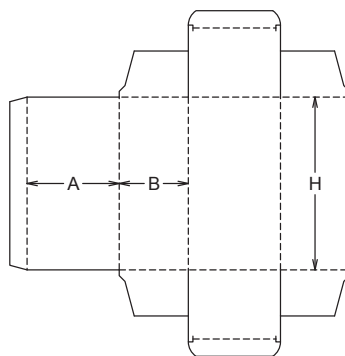
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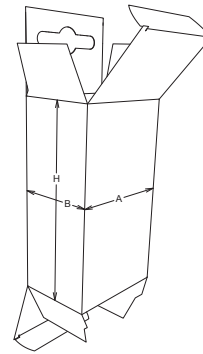
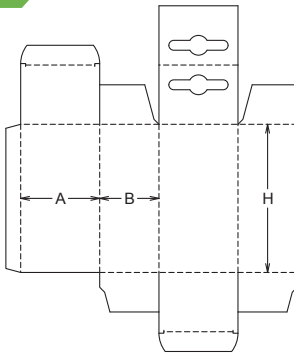
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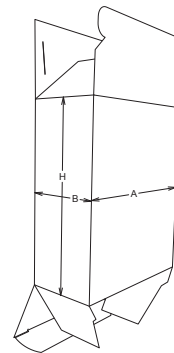
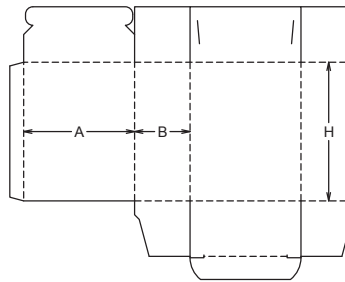
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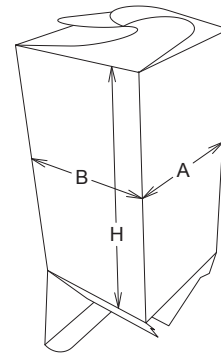
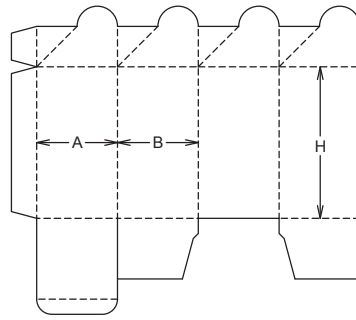
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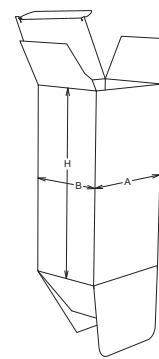
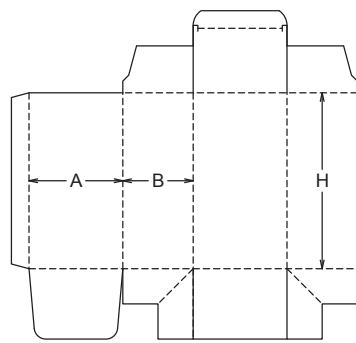
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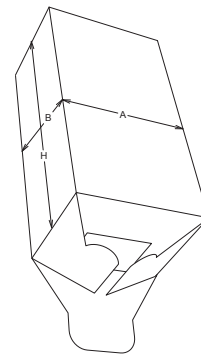
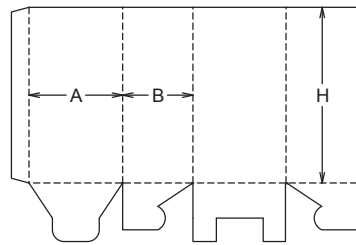
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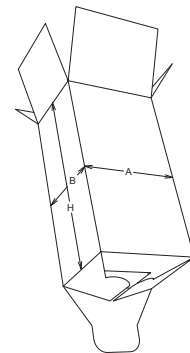
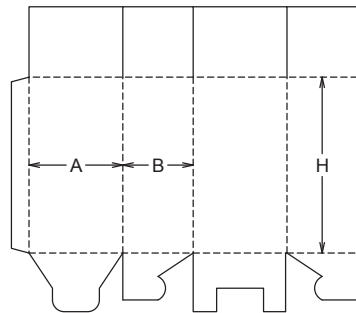
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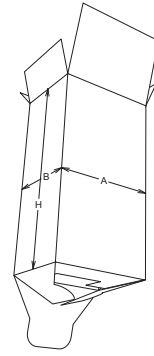
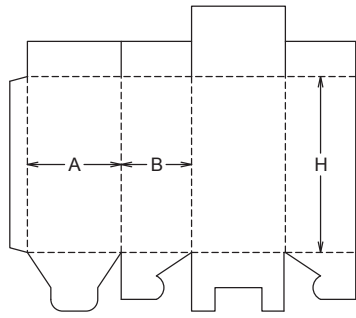
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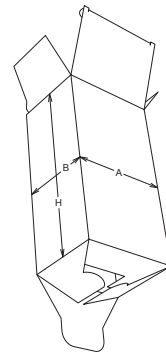
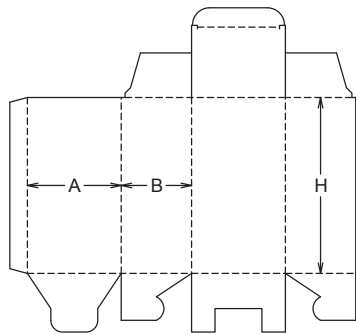
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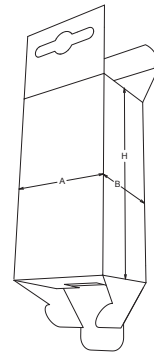
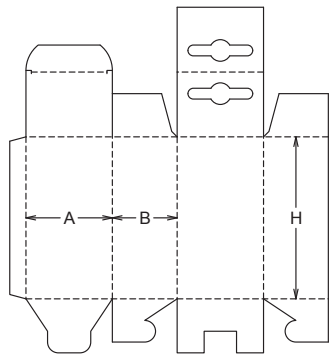
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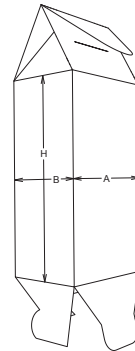
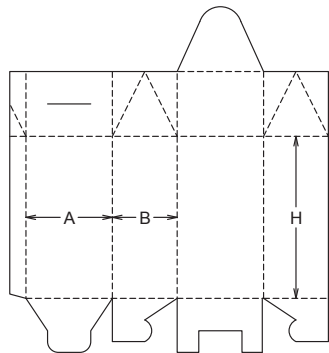
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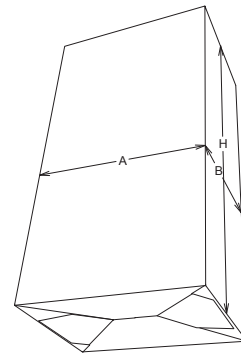
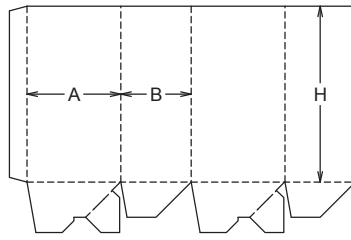
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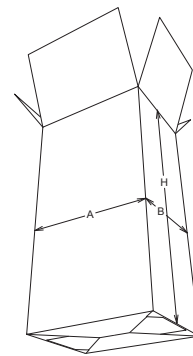
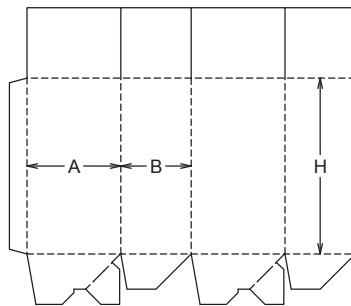
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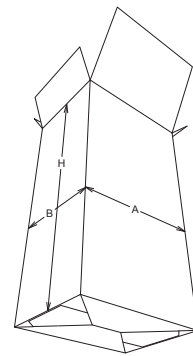
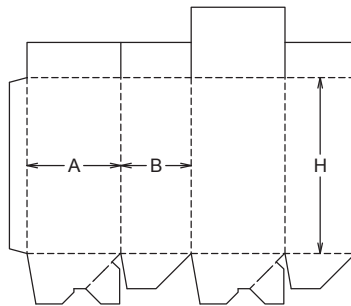
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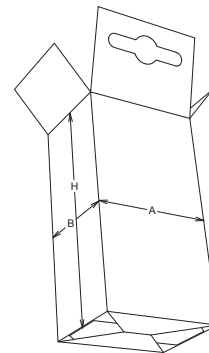
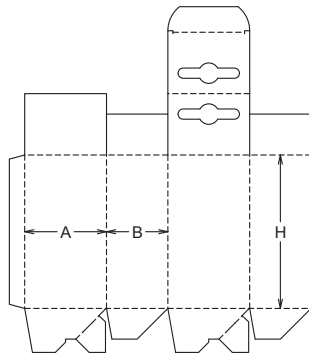
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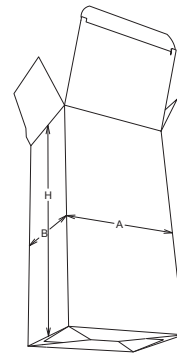
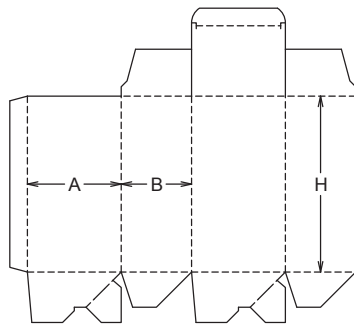
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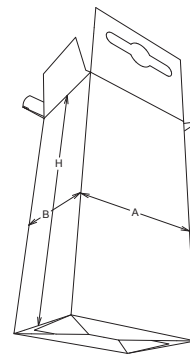
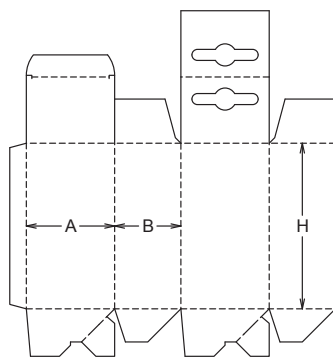
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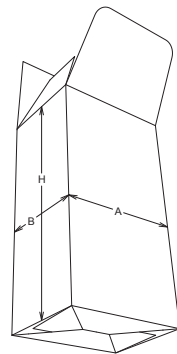
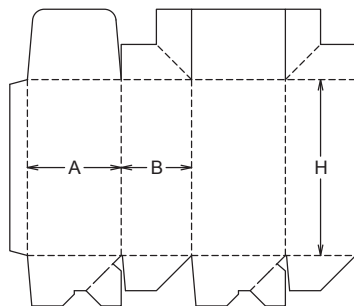
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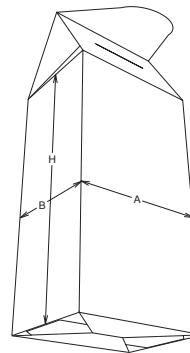
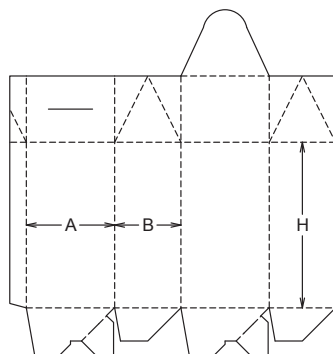
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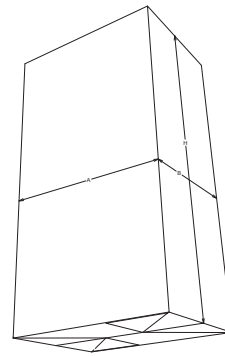
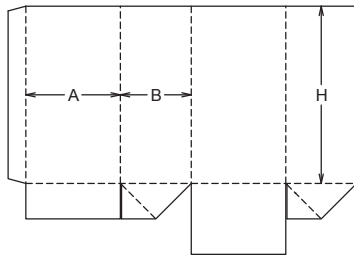
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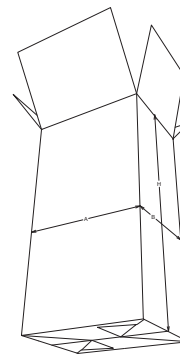
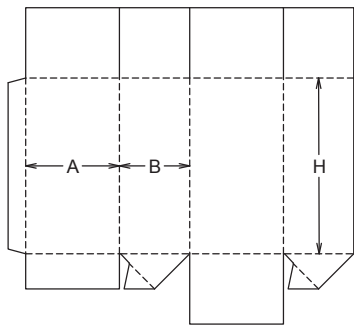
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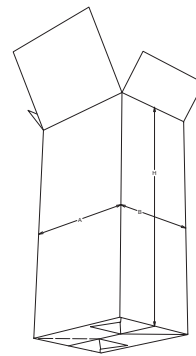
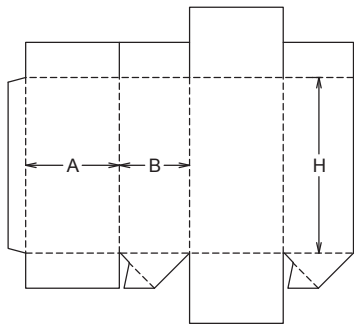
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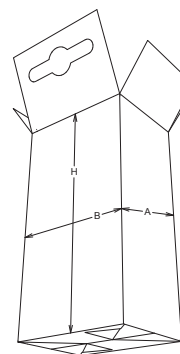
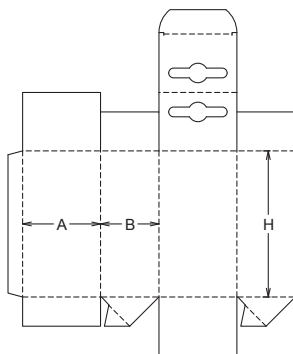
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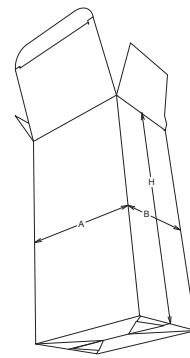
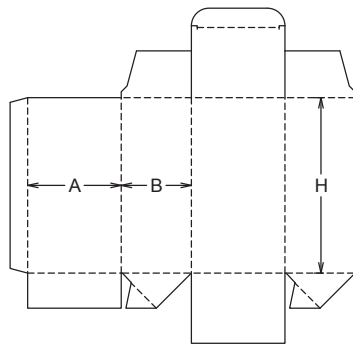
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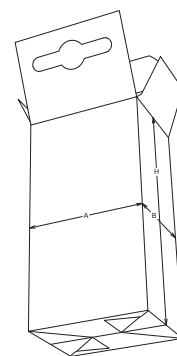
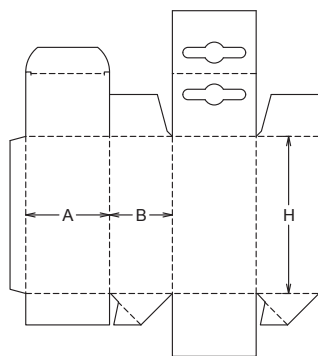
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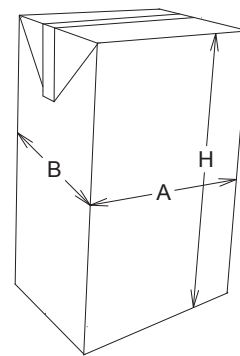
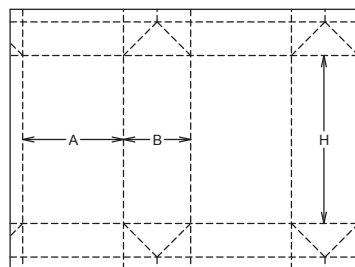
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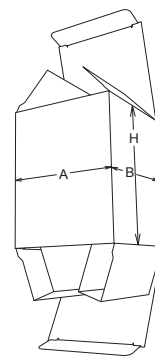
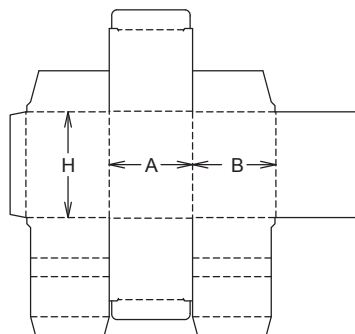
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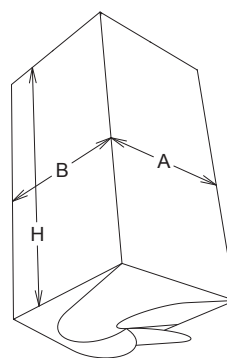
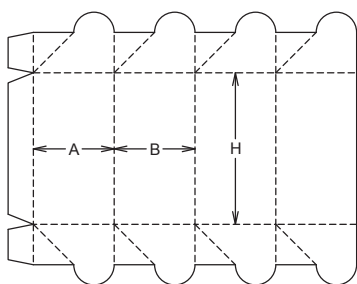
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A80.20.02.02

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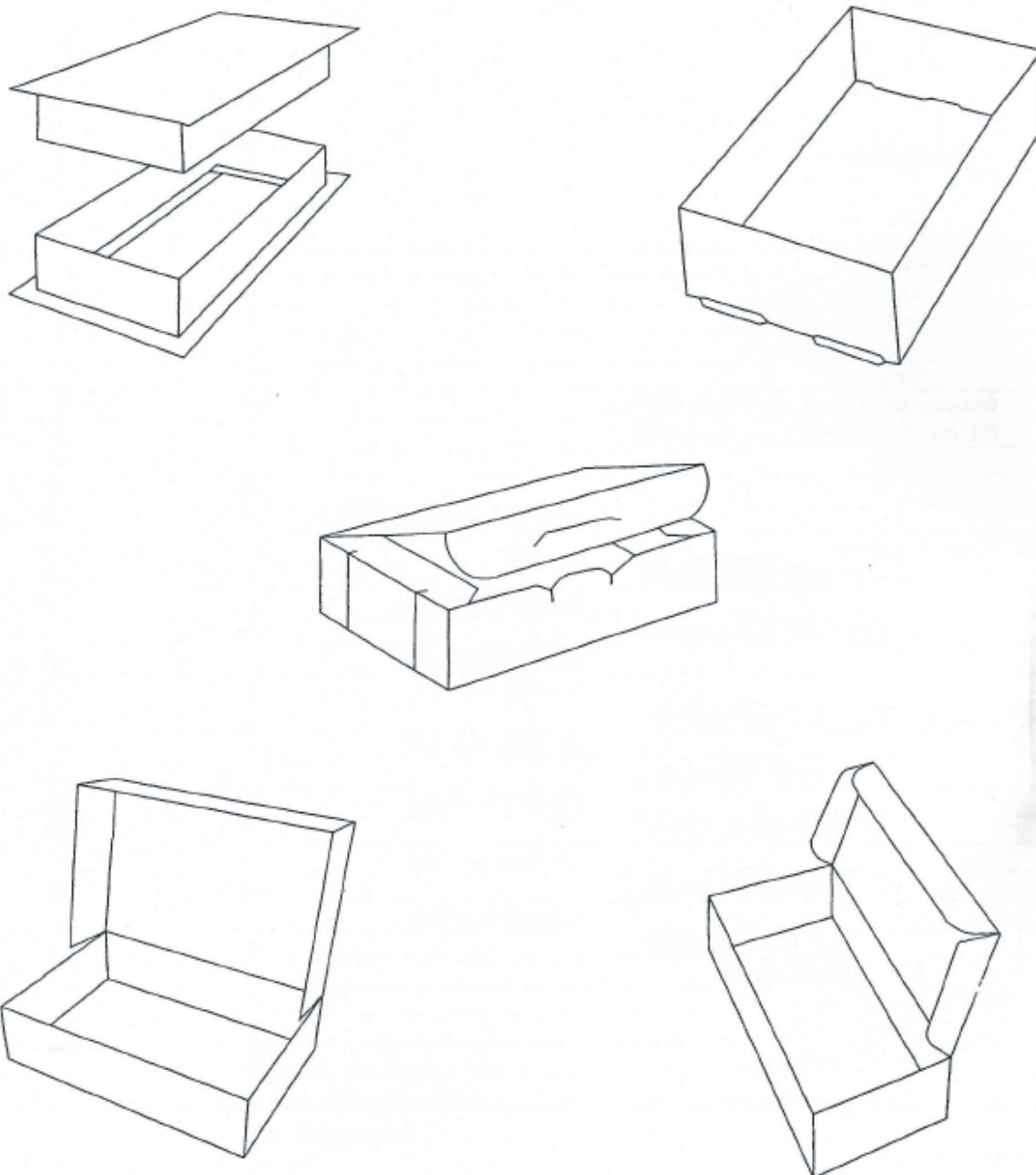




Group B: Non-long-seam-glued folding cartons with rectangular surfaces

Definition:

- There is no long-seam-gluing (tray type package)
- All outer panels are at angles of 90° to each other



Group B : Non Long seam glued folding cartons with rectangular surfaces

	Locking flaps system										Dust flaps				Cover lid															
	01	02	03	04	05	06	07	08	10	11	20	21	22	23	24	25	81	82	83	84	50	51	52	53	54	55	60	61		
	locking flaps system with fold over ends with nib locks	locking flaps system with fold over ends with expansion piece	locking flaps system with fold over ends with additional lock device	locking flaps system with fold over ends with webbed corners	locking flaps system with scissor lock system	locking flaps system with claw lock system	locking flaps system with claw lock system and locked dust flaps	locking flaps system with fold over ends	not glued corner /panel & not webbed corner	not glued corner/panel webbed	glued corner/panel , not webbed	glued corner/panel -webbed	glued corner/panel , not webbed , downfoldable inwards	glued corner/panel , webbed downfoldable inwards	glued corner /panel , not webbed , downfoldable outwards	glued corner/ panel webbed , downfoldable outwards	1 dust flap on basic tray	2 dust flaps on basic tray	3 dust flaps on basic tray	4 dust flaps on basic tray	tuck in flap cover system	double walled tuck in flap cover system	2 flap lid winged flap cover	3 winged flap cover with open corners	3 winged flap cover with webbed corners	Cover closure with claw lock	complete flap cover with closed corners	complete flap cover 2 point preglued		
	10 unglued selflocking tray with 4 double walls	0	0		0																									
	11 unglued selflocking tray with 4 double walls with locking corners		0		0																									
	14 unglued selflocking tray with 4 buffer walls			0																										
	15 unglued tray with 4 single walls						0	0																						
	20 unglued selflocking tray with 2 double walls	0			0	0																								
	30 selflocking tray with preglued side panels																													
	31 selflocking tray with preglued side panels with locking corners																													
	32 selflocking tray with 4 double walls with intergrated flanged basis		0																											
	40 glued tray with 4 single walls											0	0	0																
42 glued tray with 1 double wall																														
44 glued tray with 2 double walls											0			0																
46 glued tray with 3 double walls																														
48 glued tray with 4 double walls		0									0																			
49 glued tray with 4 buffer walls											0	0																		

UNPOSSIBLE COMBINATION

CODE COMBINATION ONLY TO BE USED WHEN MORE DETAILED PROPERTIES ARE NOT SPECIFIED IN OTHER CODES

0: designs based on this basic shapes are illustrated in the catalog

Some designs can be used as a single tray or as a telescopic packaging system, in such cases dimension need to be adjusted between Top and Bottom tray.
For special designs of Group B see group F 20

Coding of the group B

Group Name : B





































First group of 2 digits: describe the basic shape of the tray

Second group of 2 digits: describe the flap locking system; when not applicable indicate 00

Third group of 2 digits: describe the number of dust flap on the basic tray; when not applicable indicate 00

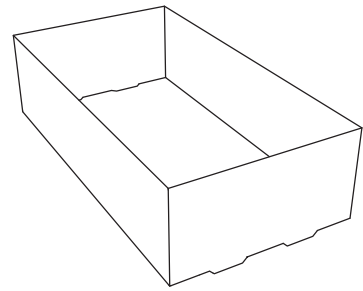
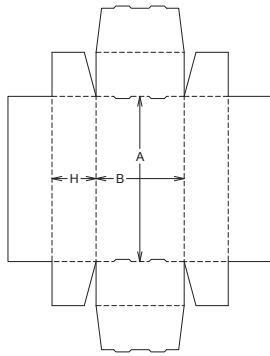
Fourth group of 2 digits: describe the cover system; when not applicable indicate 00

Closure systems of Group B

01	locking flaps system with fold over ends with nib locks		
02	locking flaps system with fold over ends with expansion piece		
03	locking flaps system with fold over ends with additional lock device		
04	locking flaps system with fold over ends with webbed corners		
05	locking flaps system with scissor lock system		
06	locking flaps system with claw lock system		
07	locking flaps system with claw lock system and locked dust flaps		
08	locking flaps system with fold over ends		
10	not glued corner /panel & not webbed corner		
11	not glued corner/panel webbed		
20	glued corner/panel , not webbed		
21	glued corner/panel -webbed		
22	glued corner/panel , not webbed , downfoldable inwards		
23	glued corner/panel , webbed downfoldable inwards		
24	glued corner / panel , not webbed , downfoldable outwards		
25	glued corner/ panel webbed , downfoldable outwards		
50	tuck in flap cover system		
51	double walled tuck in flap cover system		
52	2 flap lid winged flap cover		
53	3 winged flap cover with open corners		
54	3 winged flap cover with webbed corners		
55	Cover closure with claw lock		
60	complete flap cover with closed corners		
61	complete flap cover 2 point preglued		

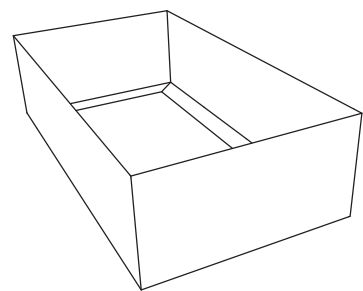
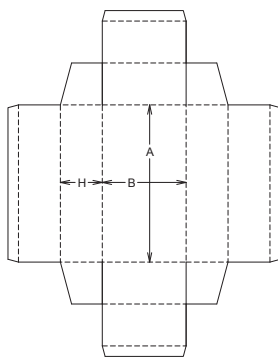
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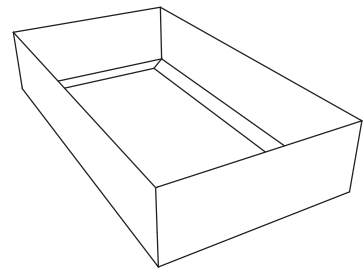
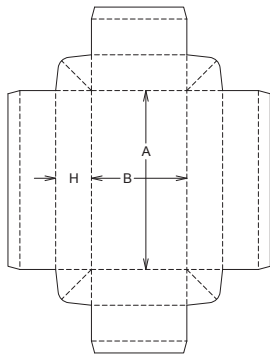
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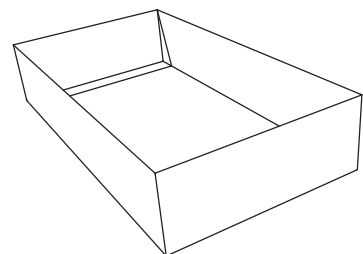
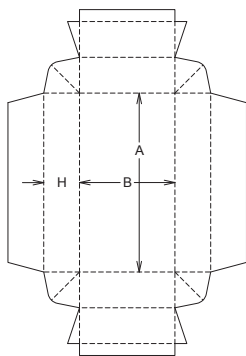
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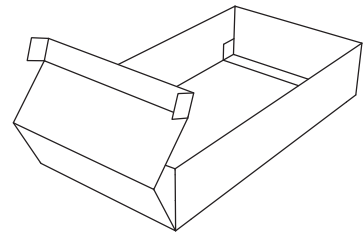
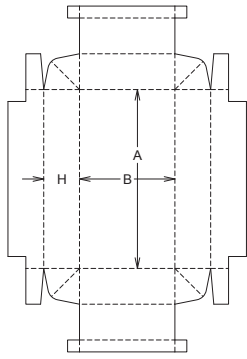
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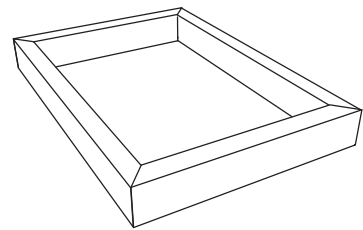
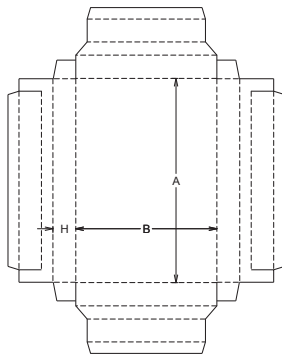
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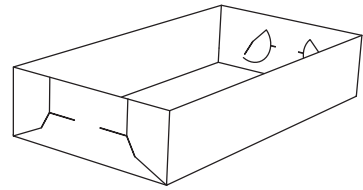
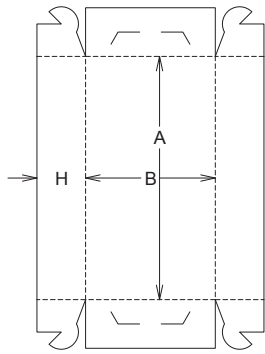
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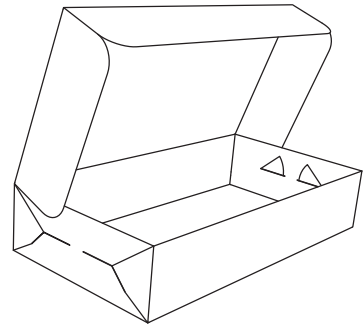
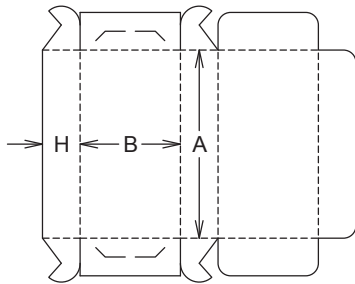
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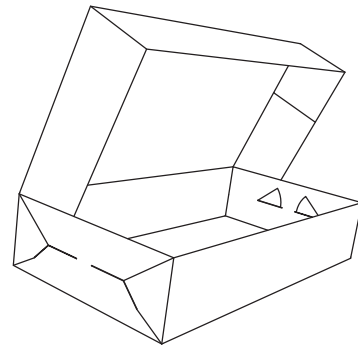
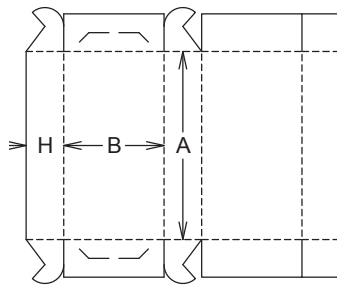
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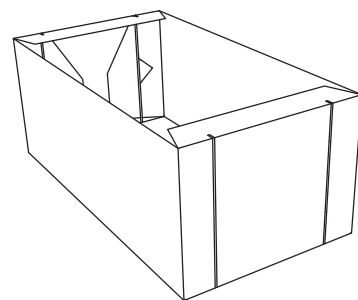
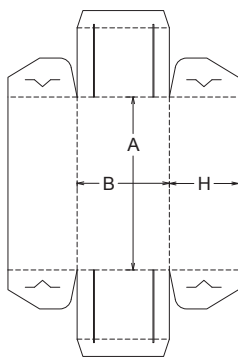
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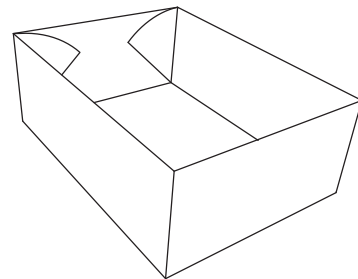
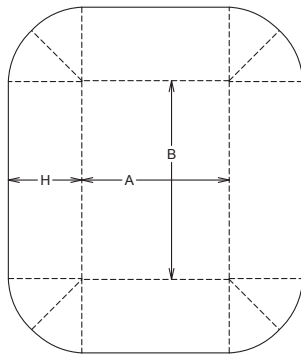
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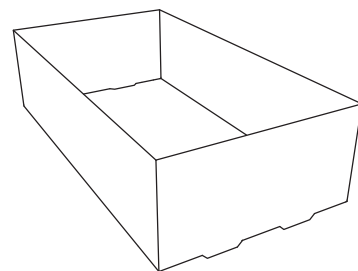
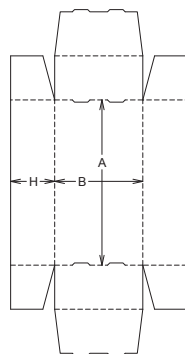
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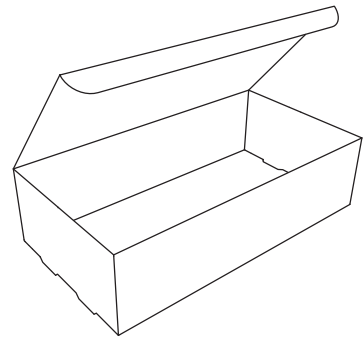
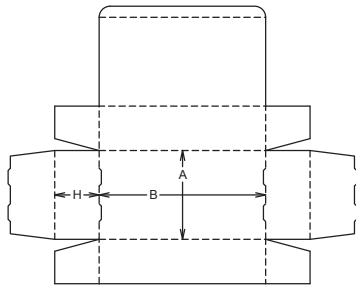
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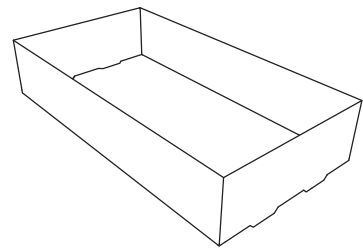
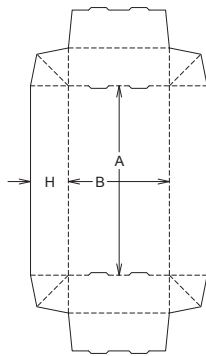
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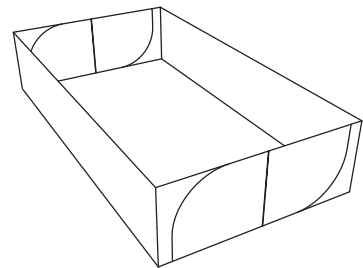
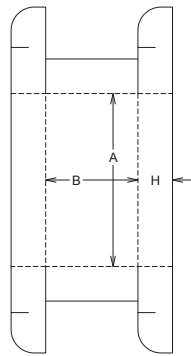
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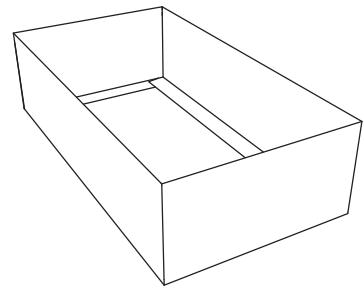
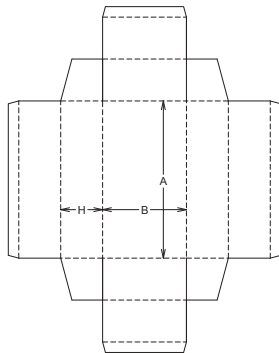
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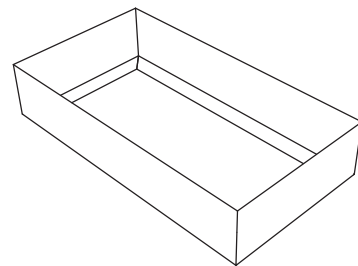
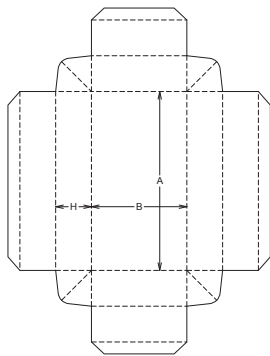
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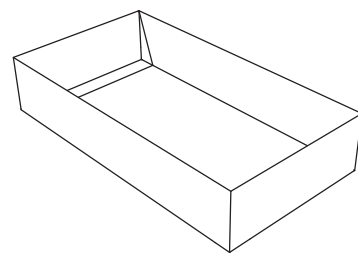
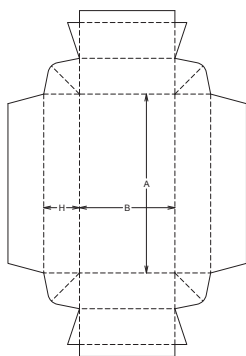
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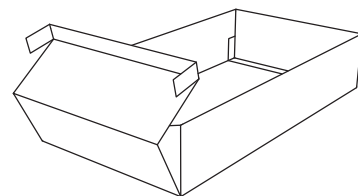
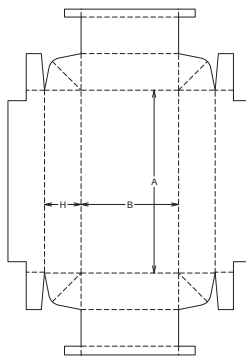
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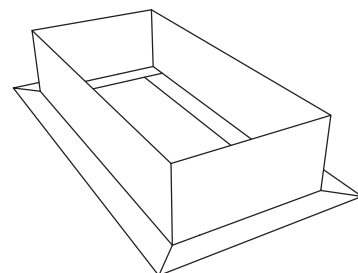
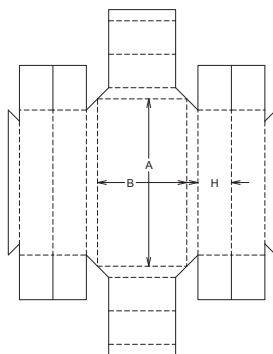
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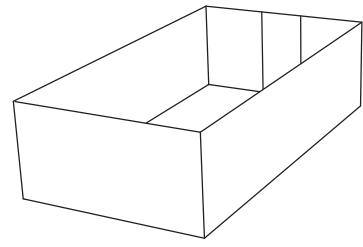
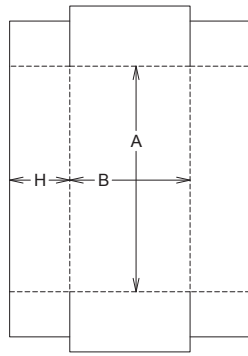
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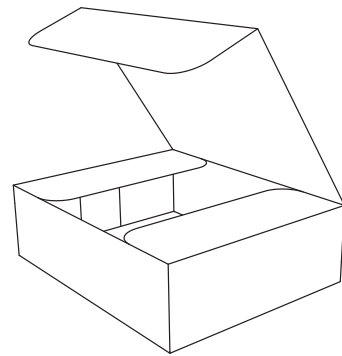
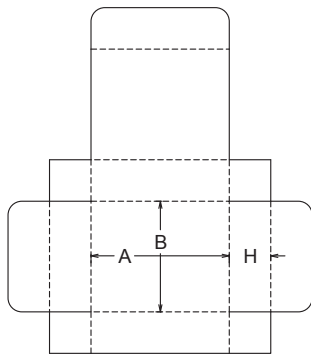
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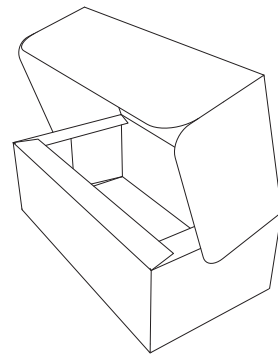
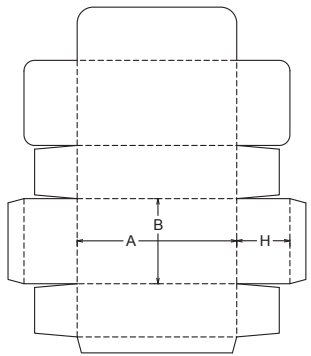
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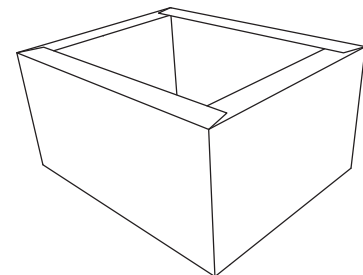
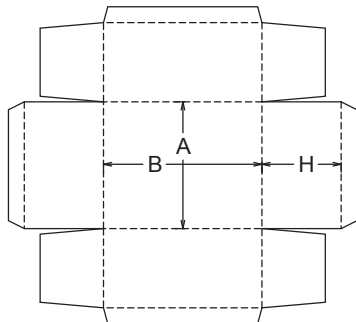
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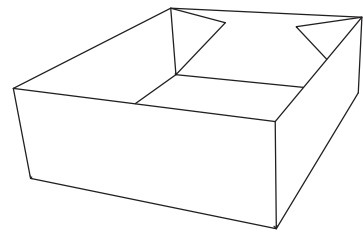
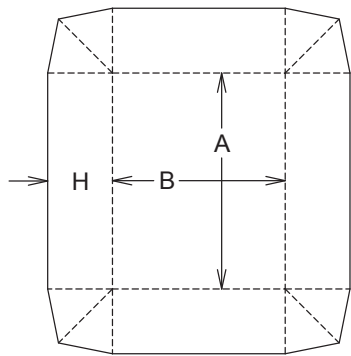
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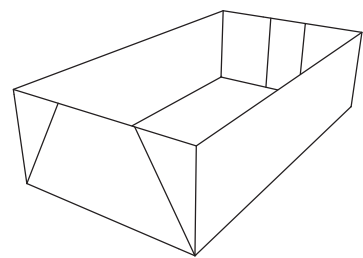
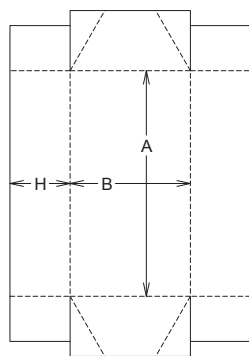
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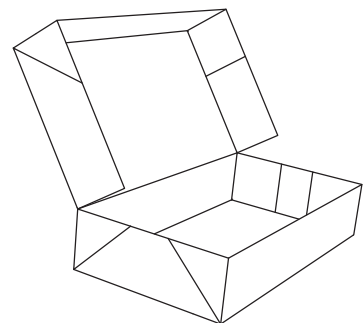
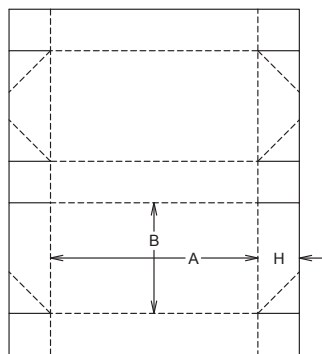
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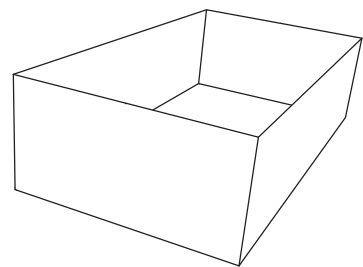
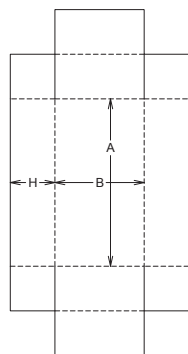
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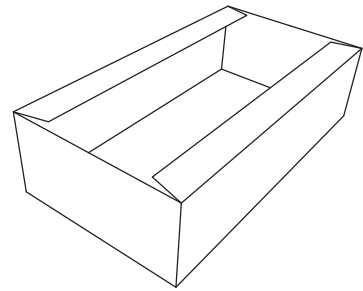
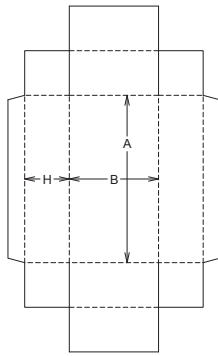
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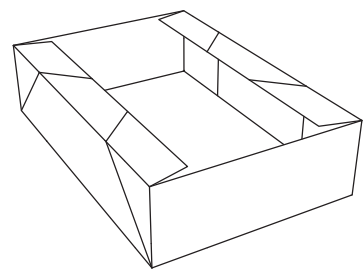
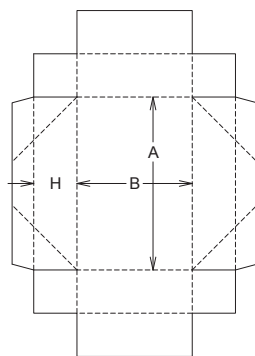
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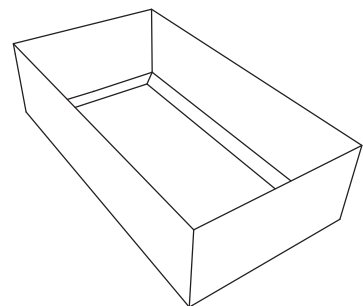
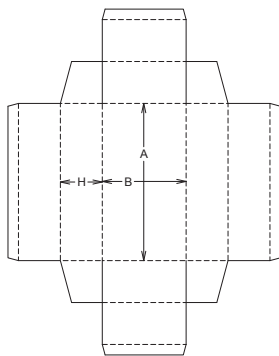
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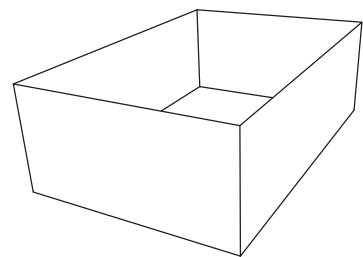
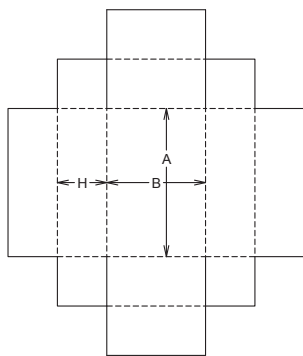
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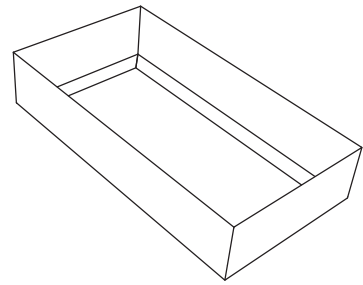
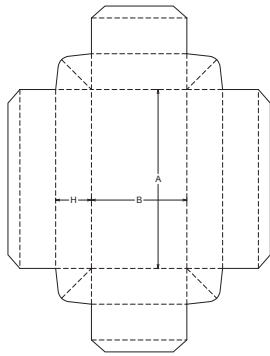
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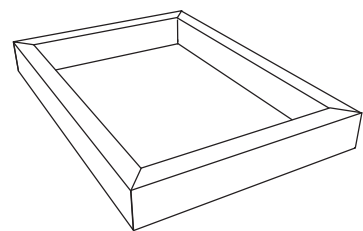
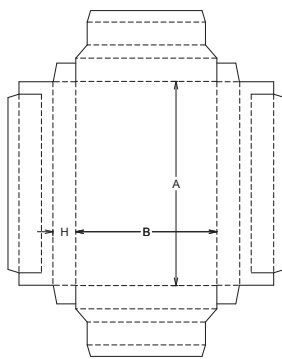
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M+A



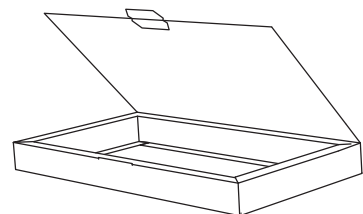
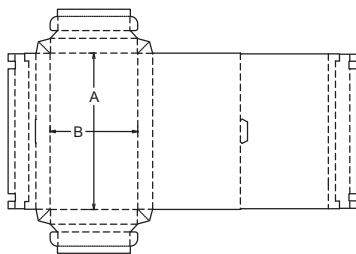
B49.20.00.00

M+A



B49.21.00.51

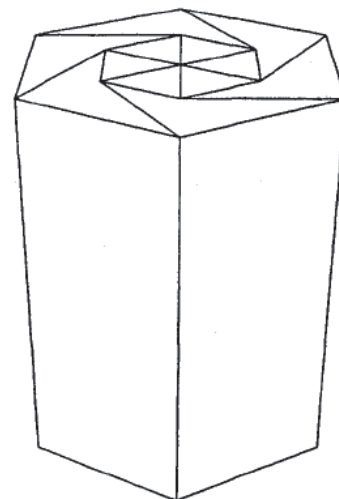
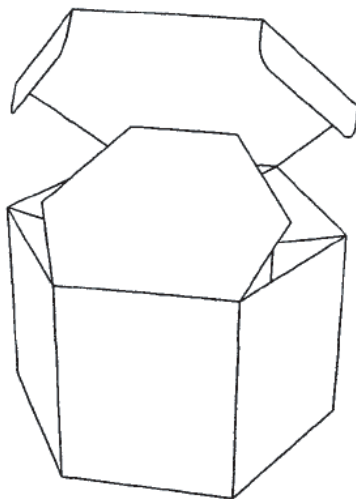
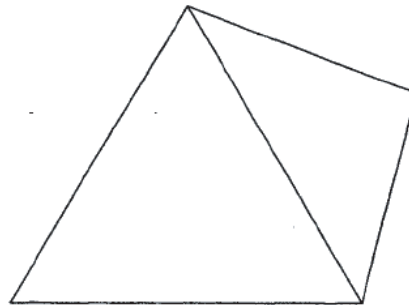
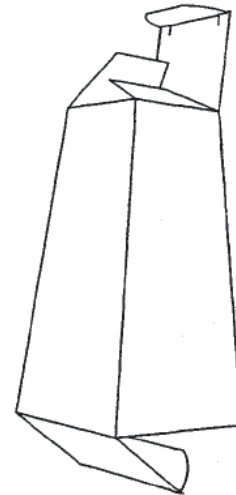
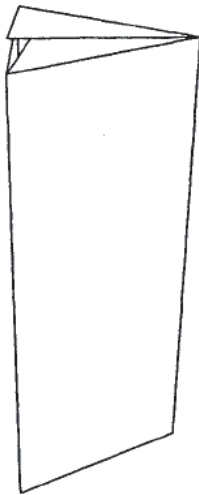
M+A



Group C: Long-seam-glued folding cartons with non-rectangular surfaces

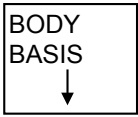
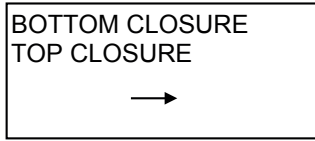
Definition:

- A glue seam in H (height) is compulsory (tube type package)
- At least one of the surfaces of the main body of the package (a panel) is not rectangular
- The height (H), or the vertical panel, does not necessarily form an angle of 90° with the base



Group C : Long seam glued folding cartons with non rectangular surfaces

			BOTTOM CLOSURE							TOP CLOSURE										
			no closure system	full overlapping closure system	closure system with reduced flap size- 1 flap fully covering	full overlapping closure system with extended back panel	tuck in flap closure system	tuck in flap closure system with extended panel	self locking envelope closure system	automatic closure (automatic bottom)	rosette closure system	no closure system	full overlapping closure system	closure system with reduced flap size- 1 flap fully covering	full overlapping closure system with extended back panel	tuck in flap closure system	tuck in flap closure system with extended panel	self locking envelope closure system	automatic closure (automatic bottom)	rosette closure system
BODY ↓	10	rectangular solid	01	10	11	15	20	21	55	60	90	01	10	11	15	20	21	55	60	90
	20	pyramid stub																		
	30	pyramid																		
BASIS	10	triangular																		
	20	4 cornered basis																		
	30	5 cornered basis																		
	40	6 cornered basis																		
	50	8 cornered basis																		



UNPOSSIBLE COMBINATION

NOT TO BE USED FOR CROSS SELECTION

For special designs of Group C see group F 30

Coding of the group C

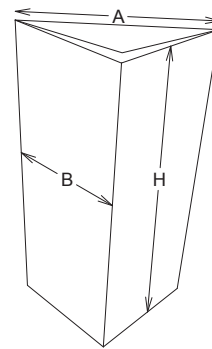
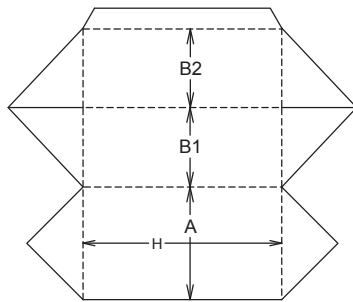
- Group Name : C
- First group of 2 digits: describe the BODY of the carton
- Second group of 2 digits: describe the form of the BASIS of the carton
- Third group of 2 digits: describe the BOTTOM closure system of the carton
- Fourth group of 2 digits: describe the TOP closure system of the carton

Closure systems of Group C

01	no closure system				
10	full overlapping closure system				
11	closure system with reduced flap size / 1 flap fully covering				
15	full overlapping closure system with extended back panel				
20	tuck in flap closure system				
21	tuck in flap closure system with extended back panel				
55	selflocking envelope closure system				
60	automatic closure (automatic bottom)				
90	rosette closure system				

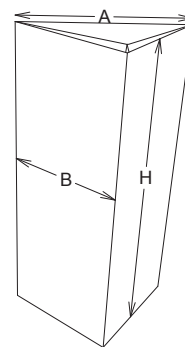
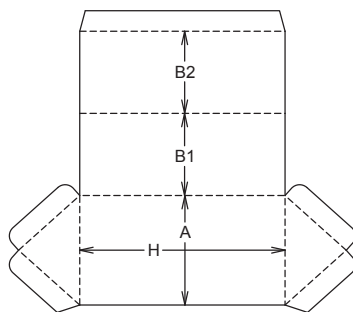
C10.10.10.10

A



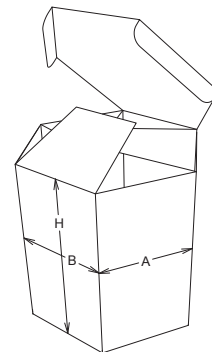
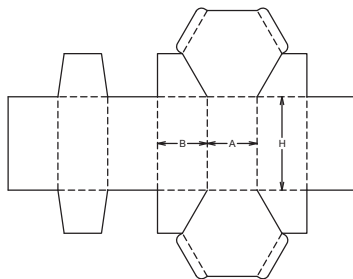
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M+A



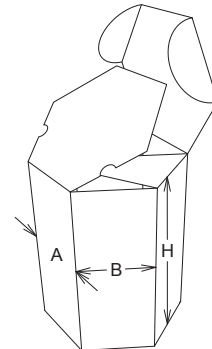
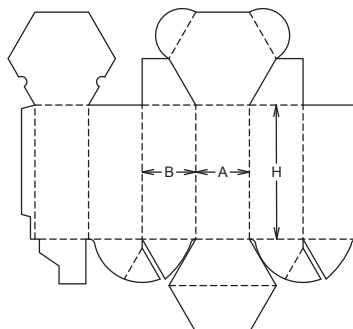
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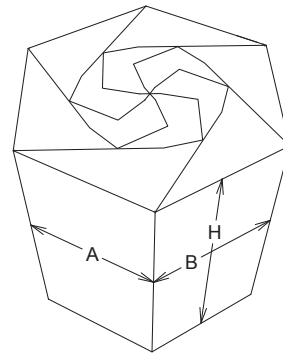
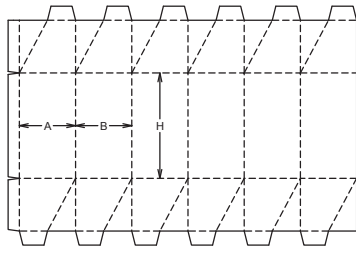
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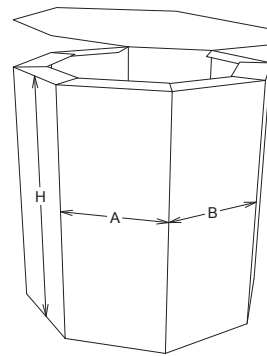
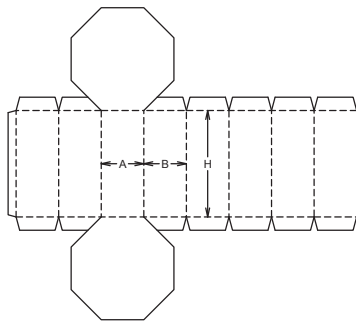
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M+A



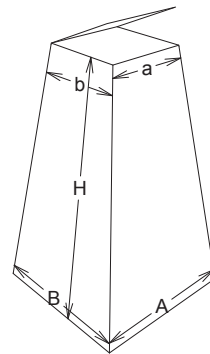
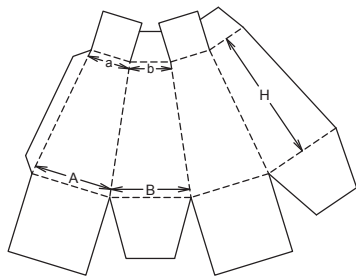
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A



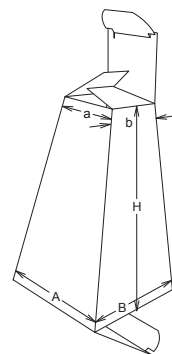
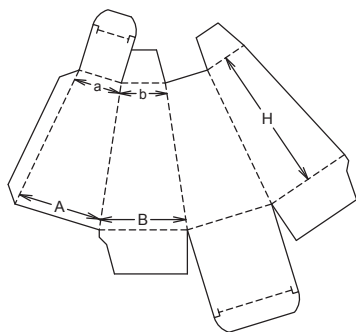
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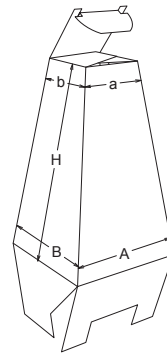
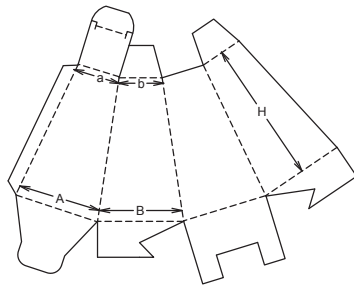
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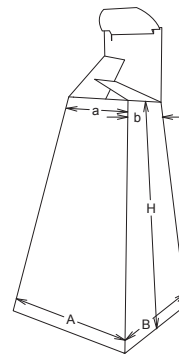
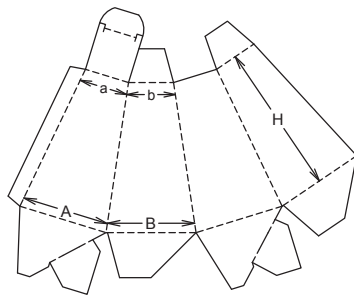
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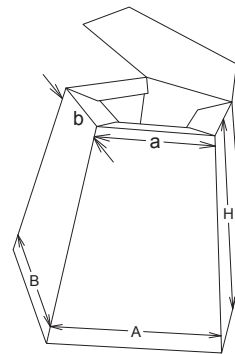
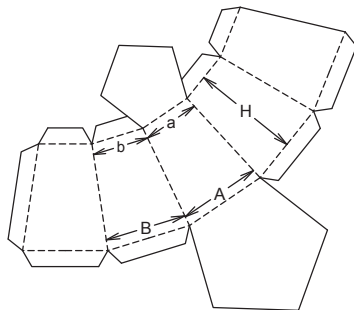
C20.20.60.20

M



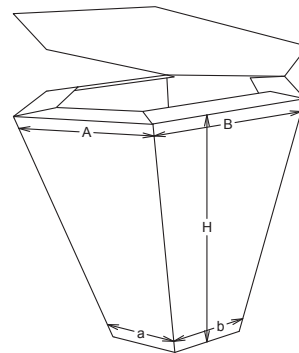
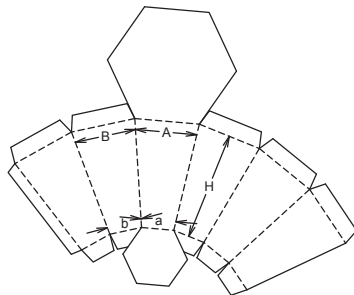
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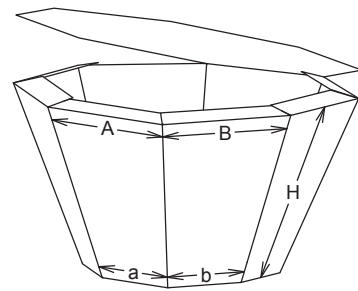
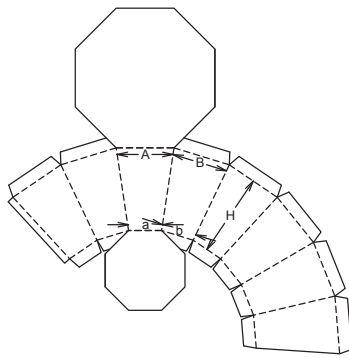
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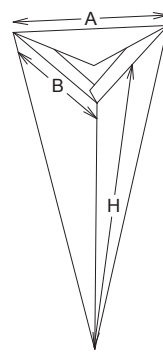
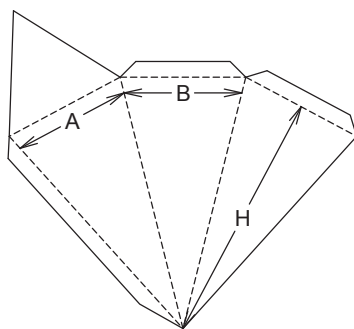
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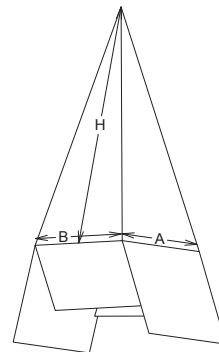
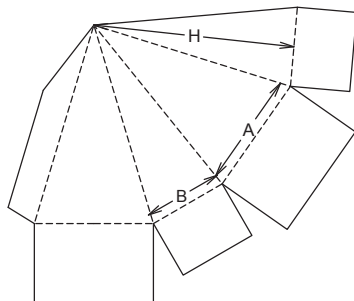
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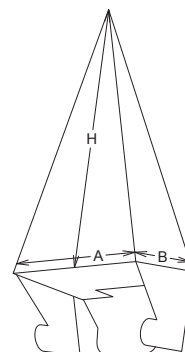
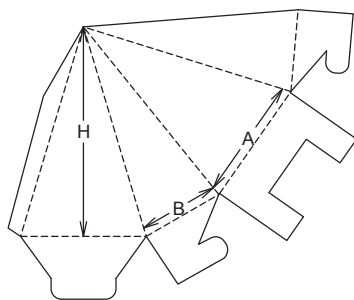
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C30.20.55.01

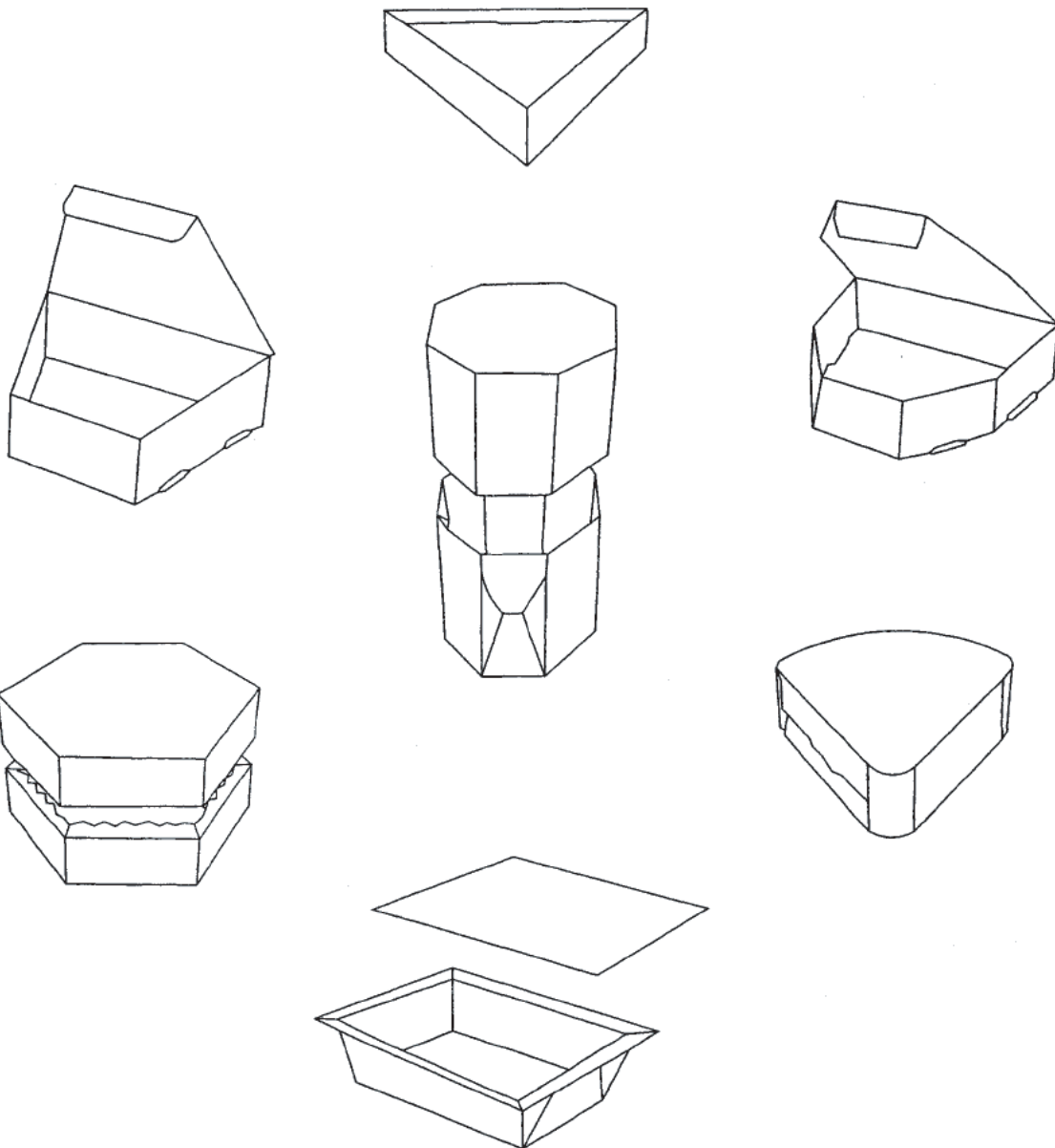
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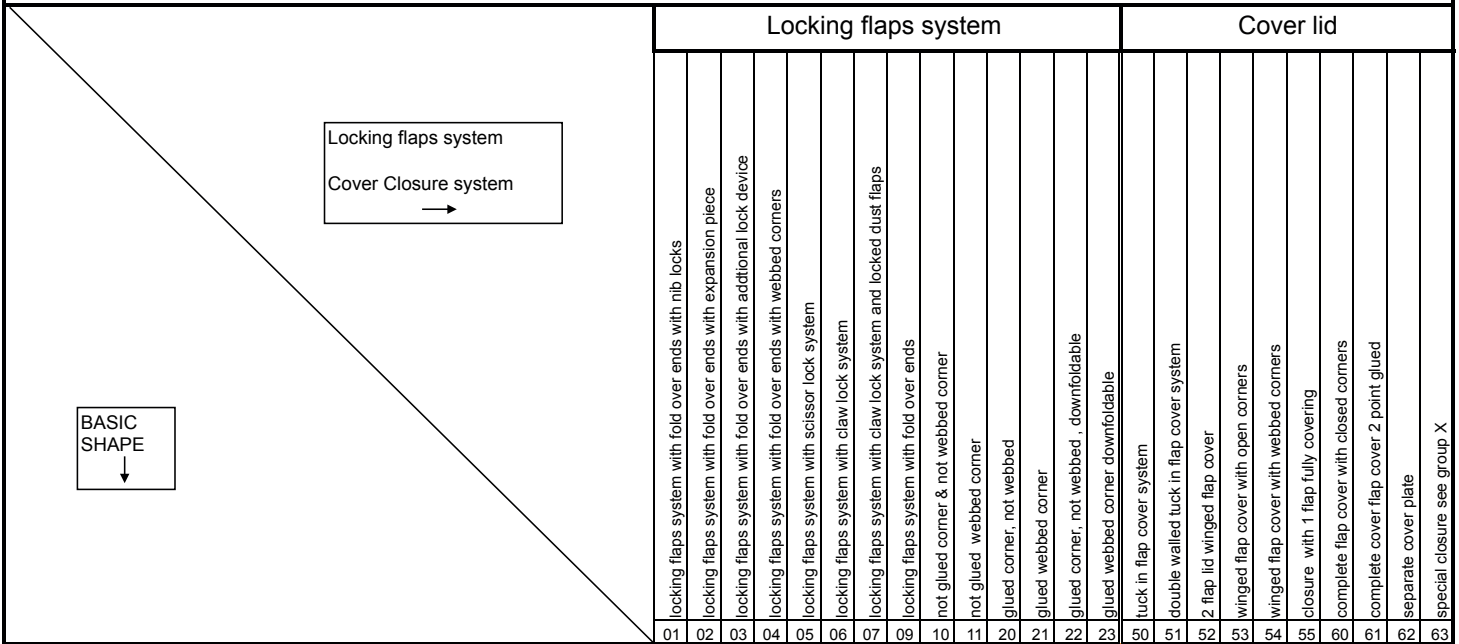
Group D: Non-long-seam-glued folding cartons with non-rectangular surfaces

Definition:

- No long-seam-gluing in H (tray type package)
- At least one of the surfaces of the main body of the package (a panel or the base) is not rectangular
- The height (H) or the vertical panel does not necessarily form an angle of 90° with the base



Group D : Non Long seam glued folding cartons with non- rectangular surfaces


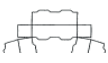
































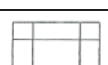





	Locking flaps system													Cover lid										
	01	02	03	04	05	06	07	09	10	11	20	21	22	23	50	51	52	53	54	55	60	61	62	63
10 unglued																								
20 glued																								
10 tray with 3 cornered basis single walled																								
11 tray with 3 cornered basis double walled																								
13 tray with 3 cornered basis partly double and single walled																								
14 tray with 3 cornered basis with buffer walls (partly)																								
15 tray with 3 cornered basis with buffer walls (all)																								
20 tray with 4 cornered bass single walled																								
21 tray with 4 cornered basis double walled																								
23 tray with 4 cornered basis partly double and single walled																								
24 tray with 4 cornered basis with buffer walls (partly)																								
25 tray with 4 cornered basis with buffer walls (all)																								
30 tray with 5 cornered bass single walled																								
31 tray with 5 cornered basis double walled																								
33 tray with 5 cornered basis partly double and single walled																								
34 tray with 5 cornered basis with buffer walls (partly)																								
35 tray with 5 cornered basis with buffer walls (all)																								
40 tray with 6 cornered bass single walled																								
41 tray with 6 cornered basis double walled																								
43 tray with 6 cornered basis partly double and single walled																								
44 tray with 6 cornered basis with buffer walls (partly)																								
45 tray with 6 cornered basis with buffer walls (all)																								
50 tray with 8 cornered bass single walled																								
51 tray with 8 cornered basis double walled																								
53 tray with 8 cornered basis partly double and single walled																								
54 tray with 8 cornered basis with buffer walls (partly)																								
55 tray with 8 cornered basis with buffer walls (all)																								

UNPOSSIBLE COMBINATION
CODE COMBINATION ONLY TO BE USED ONLY TO BE USED IN EXCEPTIONAL SITUATIONS
 Some designs can be used as a single tray or as a telescopic packaging system, in such cases dimension need to be adjusted between Top and Bottom tray.
 For special designs of Group D see group F 40

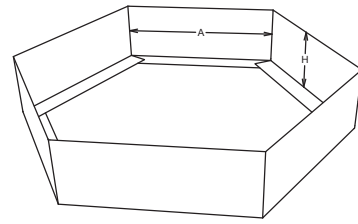
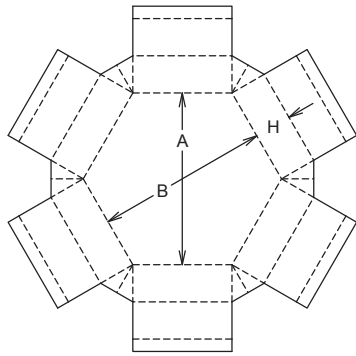
Coding of the group D
 Group Name : D
 First group of 2 digits: describes whether the tray is unglued or glued
 Second group of 2 digits: describes the form of the BASIS of the carton
 Third group of 2 digits: describes the locking flaps system of the carton
 Fourth group of 2 digits: describes the cover system; when not applicable indicate 00

Closure systems of Group D

01	locking flaps system with fold over ends with nib locks			
02	locking flaps system with fold over ends with expansion piece			
03	locking flaps system with fold over ends with additional lock device			
04	locking flaps system with fold over ends with webbed corners			
05	locking flaps system with scissor lock system			
06	locking flaps system with claw lock system			
07	locking flaps system with claw lock system and locked dust flaps			
09	locking flaps system with fold over ends			
10	not glued corner /panel & not webbed corner			
11	not glued corner/panel webbed			
20	glued corner/panel , not webbed			
21	glued corner/panel -webbed			
22	glued corner/panel , not webbed , downfoldable			
23	glued corner/panel , webbed downfoldable			
50	tuck in flap cover system			
51	double walled tuck in flap cover system			
52	2 flap lid winged flap cover			
53	3 winged flap cover with open corners			
54	3 winged flap cover with webbed corners			
55	Closure with 1 flap fully covering			
60	complete flap cover with closed corners			
61	complete flap cover 2 point preglued			
62	separate cover plate			

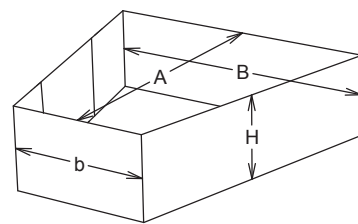
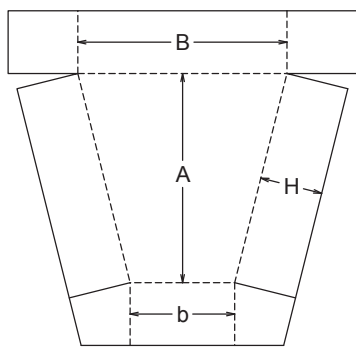
D10.41.04.00

M



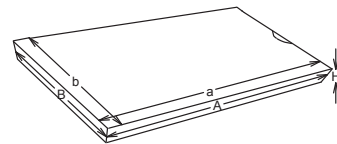
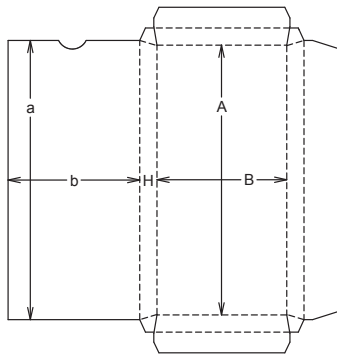
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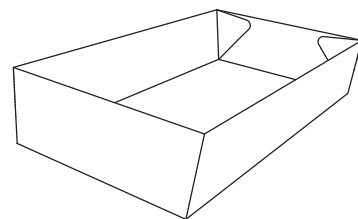
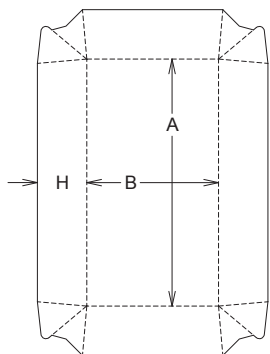
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A



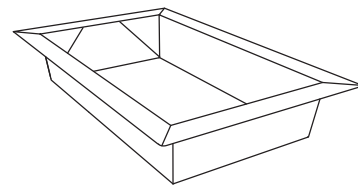
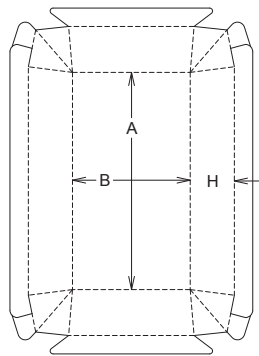
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A



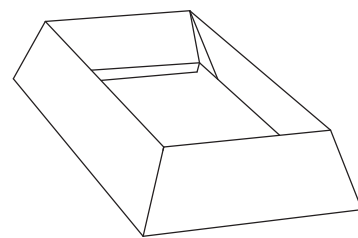
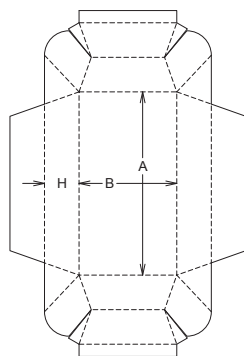
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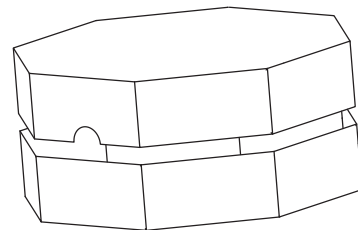
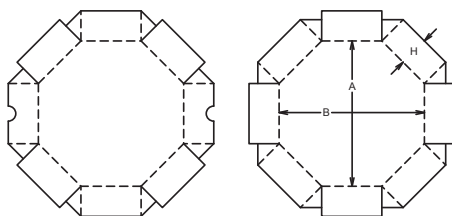
D20.21.02.00

M/A



D20.50.20.00

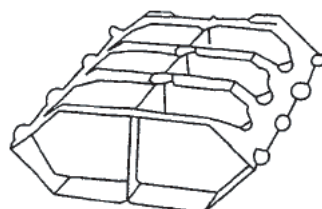
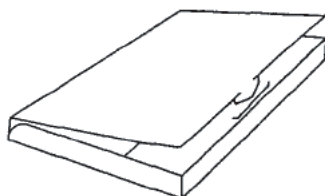
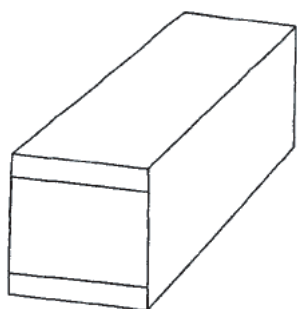
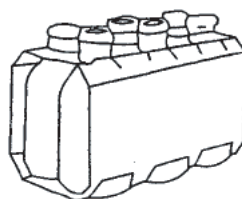
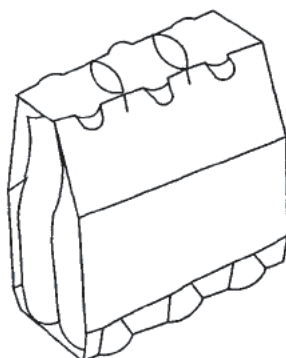
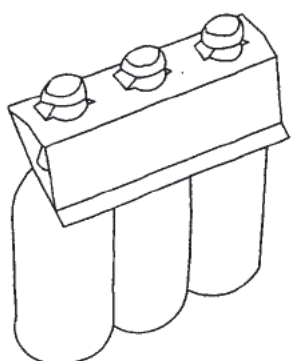
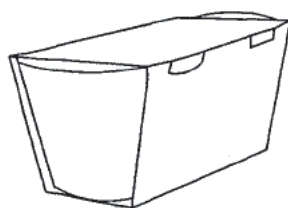
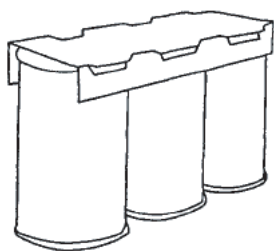
A



Group E: Product-related or integrated folding carton

Definition:

- Designed to work in combination with specific goods/products or primary package contents



Group E : Product related / integrated folding cartons

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">Product ↓</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">Closure system →</div> </div>																
		glued	product locking device	glued wrap around with closed side panels	glued wrap around with open side panels	glued wrap around with closed side panels and carrying handle	glued wrap around with open side panels and carrying handle	self locking wrap around with closed side panels	selflocking wrap around with open side panels	self locking wrap around with closed side panels and carrying handle	self locking wrap around with open side panels and carrying handle	preglued	closure by tuck insertion	folded (not glued , not interlocked)	folder with locking panels	folder with tuck in flap closure
		10	11	20	21	22	23	30	31	32	33	50	55	80	81	82
cylindrical products (cans ,beakers,glasses)																
10	vertical panels , single row of products		0	0	0			0								
11	vertical panels , single row of products , recessed lid			0												
12	vertical panels , double rows of product			0				0								
13	vertical panels , double rows of product , recessed lid															
14	panels not vertical, single row of products		0	0	0			0								
15	panels not vertical, single row of products, recessed lid			0												
16	panels not vertical, double rows of product			0												
17	panels not vertical, double rows of product, recessed lid															
bottles																
20	single row of products, cap and / or bottleneck covered			0	0											
21	single row of products, cap and /or bottleneck not covered	0		0												
22	double row of product, cap and /or bottleneck covered	0		0												
23	double row of product, cap and / or bottleneck not covered			0												
cubical form																
30	vertical panels															
31	panels not vertical			0												
bars, slabs, folders (eg. Books , chocolate)																
40	vertical and conical panels															0
eggs																
50	single row of products															
51	double rows of product															
CD																
60	wallet															
Fast food																
70	Burger box															
99	Others															

0 : illustrated in the catalog
 For special designs from Group E see Group F50

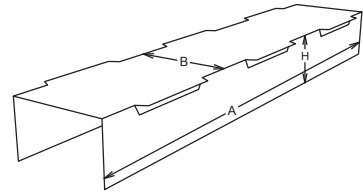
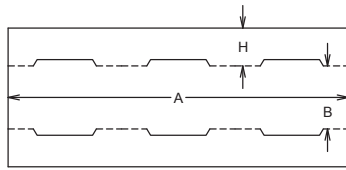
Coding of the group A

Group Name : E
 1st group of 2 digits: describe a range of products where the packaging has been designed for
 2nd group of 2 digits: describe the closure system for the carton
 3rd group of 2 digits: not applicable ; 00 can be written in the code
 4th group of 2 digits: not applicable , 00 can be written in the code.

Remark:
 Not all properties represented in this matrix can be combined but are included in the overview since they are typical for a specific application

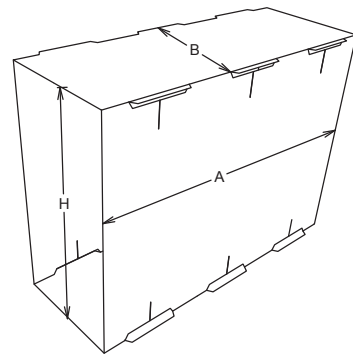
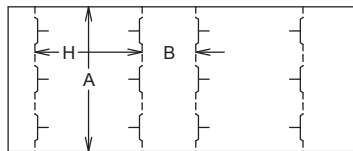
E10.11.00.00

M/A



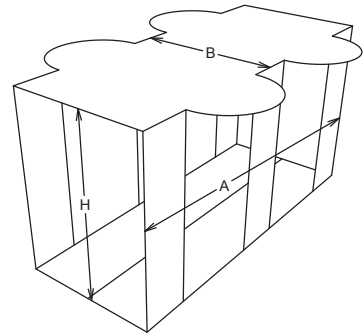
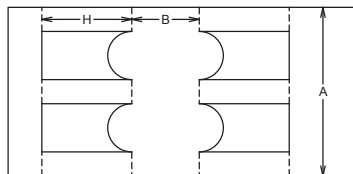
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A



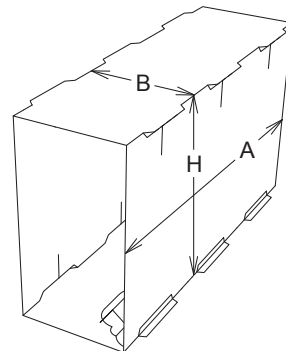
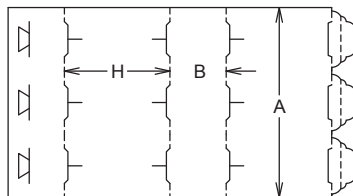
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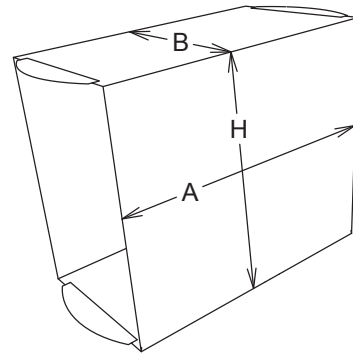
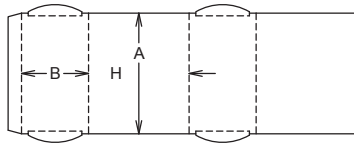
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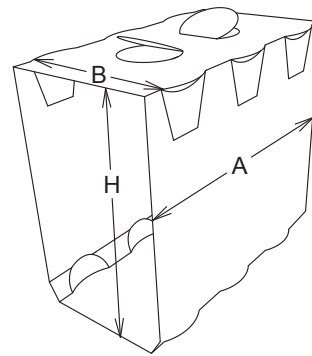
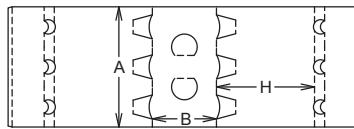
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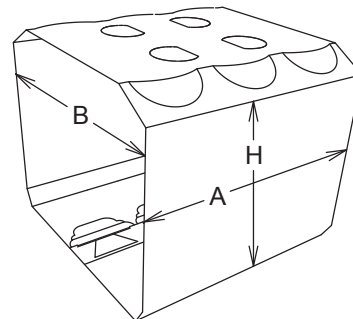
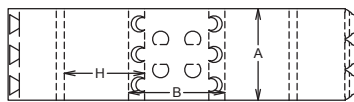
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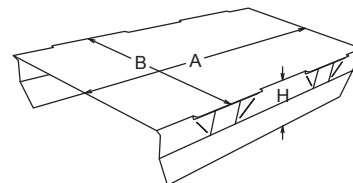
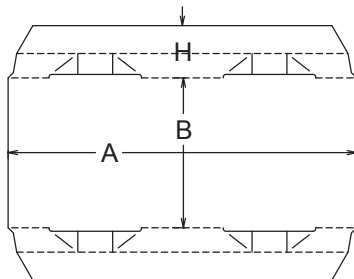
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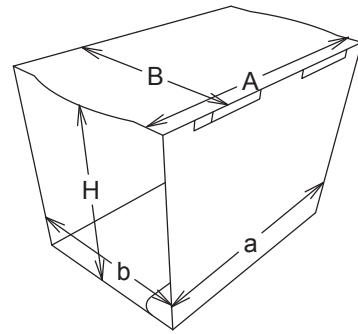
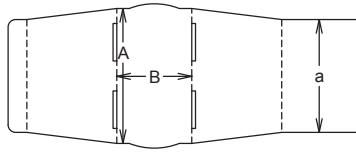
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M/A



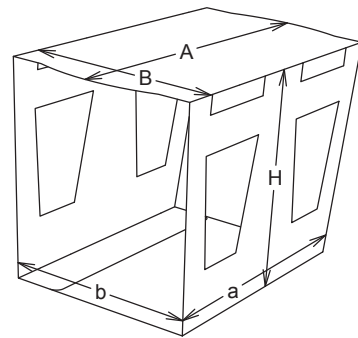
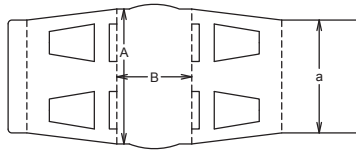
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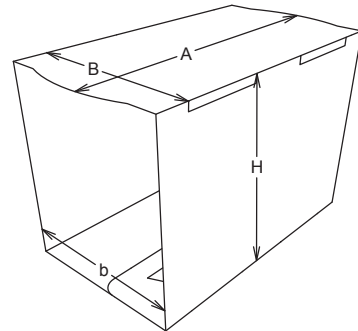
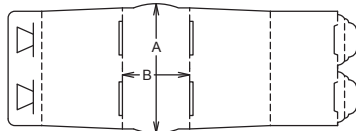
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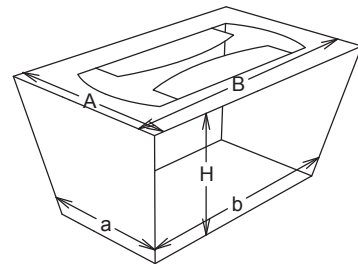
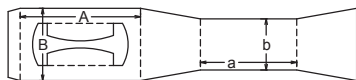
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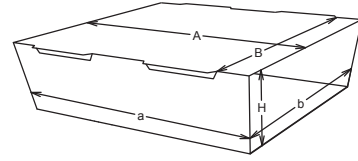
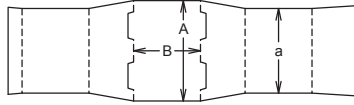
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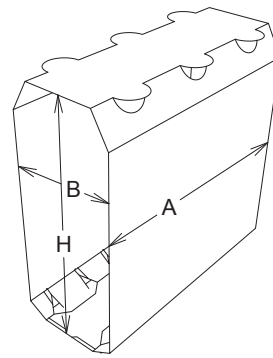
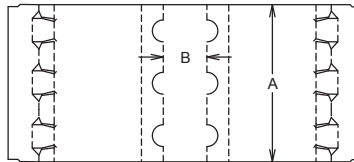
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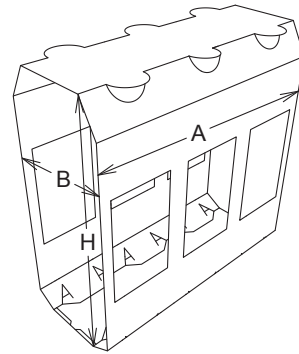
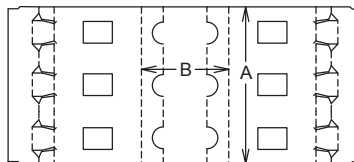
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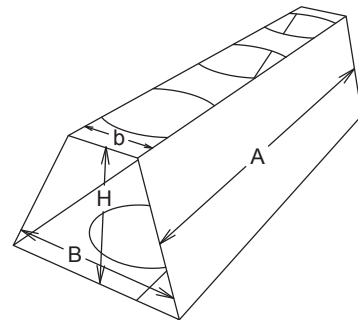
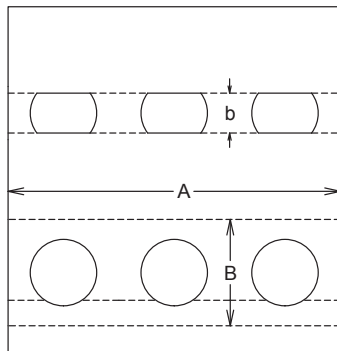
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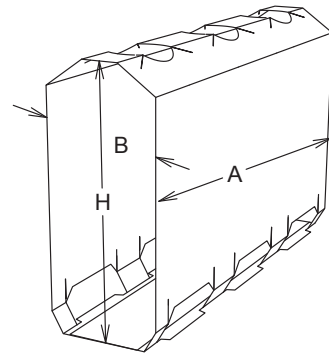
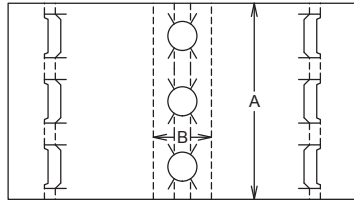
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M+A



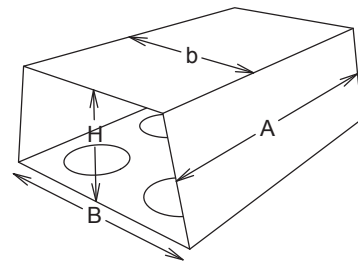
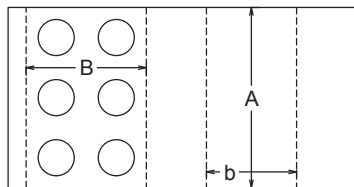
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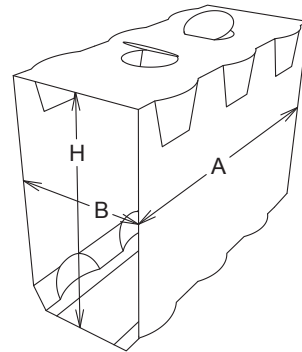
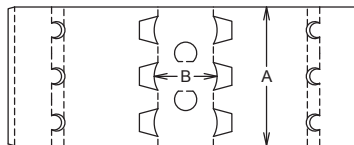
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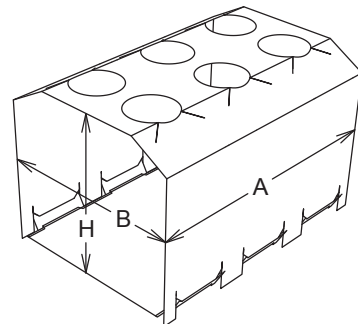
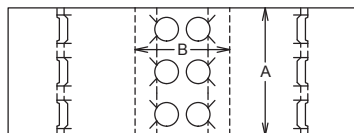
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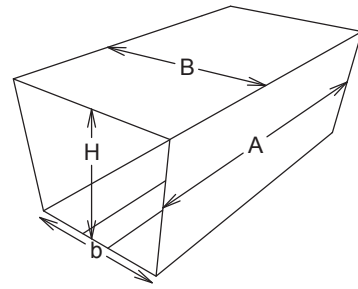
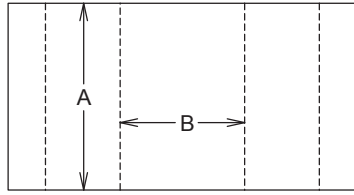
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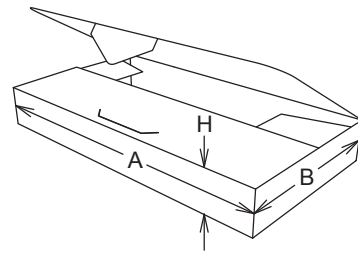
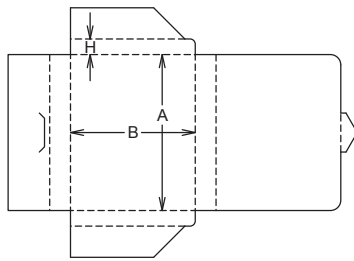
E31.20.00.00

M/A



E40.82.00.00

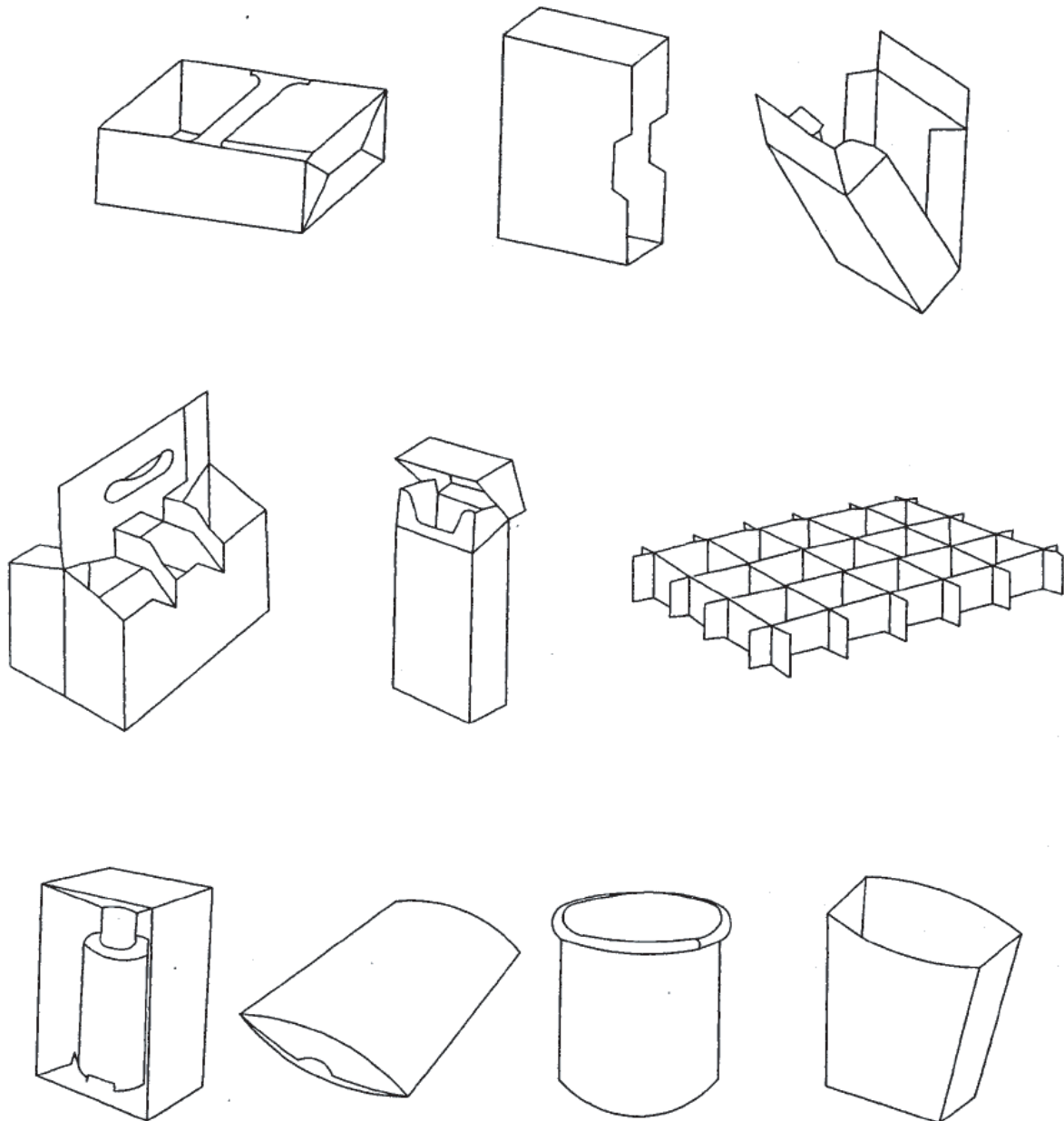
M



Group F: Other folding carton styles

Definition:

- This group comprises all styles of folding cartons that cannot be attributed clearly to one of the main groups A to E



Group F: Special Designs		
10	Variations on group A : long seam glued folding cartons with rectangular surfaces.	
10.10	double compartment	
10.11	open - double sleeve	o
10.12	one compartment closed	o
10.13	both compartments closed	o
10.40	with automatic "bottom" closure on both sides (used as tray)	
10.41	vertical walls, one or more apertures	o
10.42	vertical walls, two apertures/ carrying handle	
10.45	sloping walls, one or more apertures	
10.46	sloping walls, two apertures / carrying handle	
10.50	with recessed top/ bottom closure	
10.51	with flaps	o
10.80	special designs	
10.81	skillet base locking top with inner lining (reclosable opening with reduced flaps with locking device)	o
10.82	telescopic top and bottom (closures see group A) : more combinations possible	o
10.83	with broken curved side edges	o
20	Variations on group B : Non long seam glued folding cartons with rectangular surfaces	
20.00	carton with 4 double walls	
20.01	Top with curved top panel	o
20.02	Top with curved top panel & conical side panels	
20.03	with sides of unequal height	
20.30	tray with 4 point gluing	
20.33	tuck in flap with integral inset	o
20.35	rounded ends and curved top , 2 piece	o
20.36	rounded ends and curved top	
20.37	rounded ends	o
20.40	tuck in flap box with continuous base and lid attached	
20.41	hinge back lid with glued corners	o
20.42	hinge back lid with folded corners	o
20.43	hinge back lid inside lid display	
20.50	rolling folding carton (tube from group A)	
20.51	without corner covers, 2 dust flaps	o
20.52	with 2 buffer walls	o
20.53	with 2 platforms	o
20.60	downfoldable trays 2P glued basis and 2P glued cover	o
30	Variations on group C: Long seam glued folding cartons with non rectangular faces	
30.00	triangular	
30.10	quadrangular	
30.11	side walls trapezium shaped with sealing flap underneath (beakers)	
30.20	hexagonal	
30.21	side walls rectangular , flaps tucked in	
30.22	side walls rectangular , flaps folded, glued with tamper evident strip	o
30.50	polygonal with hollow/bottom	
30.51	hexagonal with recessed top cover	
30.52	hexagonal with recessed top cover and automatic bottom	o
40	Variations on group D: Non long seam glued folding cartons with non rectangular surfaces	
40.01	3 cornered base with 3 rounded corners	o
40.02	3 cornered base with 2 rounded corners	o
40.03	3 cornered base with rounded backpanel	o
40.04	3 cornered base with rounded backpanel & 3 rounded corners	o
40.05	3 cornered base with rounded backpanel & 2 rounded corners	o
40.06	3 cornered base with rounded backpanel & 1 rounded corner	
40.10	polygonal	
40.11	with bevelled corners (sketch 4 corners)	o
40.12	with bevelled corners (sketch 8 corners)	o
40.13	with rounded and webbed corners	o
40.60	Beakers	
40.62	beaker sidewalls trapezium shaped , glued (sketch 8 corners) with securing lid	o
40.70	Burger box	
40.71	burger box	o
50	Variations on Group E : Product related / Integrated folding cartons	
50.00	Sleeves & open packaging for product display	
50.01	with all sides tucked in (bottle)	o
50.02	with all sides tucked in (bottle) & rounded sidewalls , glued (bottle)	o
50.03	with base for locking together, glued (bottle)	o
50.04	with push in for interlocking products, glued (tube)	o
50.10	carrying carton	
50.11	with 2 round compartments, glued to the base (cylindrical products)	o
50.20	cubical products	
50.21	cubical products end -mounted	o

60 Variations on folding cartons with flat surfaces		
60.00	with continuous base or lid, double B-sides in cut design	
60.01	glued on 2 sides with tuck in flap	0
60.02	glued on 2 sides with end flap	0
60.03	glued on 2 sides with bevelled side walls	0
60.04	glued on 2 sides with tuck in flap with security lock	
60.05	glued on 2 sides with webbed flap	
60.06	locked in on 2 sides , tuck in flap closure	0
60.07	locked in on 2 sides , end flap	0
60.10	flip-top closure	
60.11	glued on 2 sides , continuous base in one piece without shoulder	0
60.12	glued on 2 sides , continuous base in 2 pieces with shoulder	0
60.13	glued on 2 sides , continuous base in 2 pieces with long shoulder	
60.14	glued on 1 side , end flap beneath and end flap on top , intergrated shoulder on base	
60.15	glued on 1 side , end flap beneath and end flap on top , intergrated shoulder on side	0
60.16	glued on 1 side , end flap beneath and hinged lid,without end flap	0
60.20	bending via perforation	
60.21	continuous base & lid, double B-sides	
60.30	carry pack with separators and handle (open)	
60.31	with 4 compartments	0
60.32	with 6 compartments	0
60.40	folding carton with separator	
60.41	one row	0
60.42	double row	0
60.80	remaing folding cartons with straight surfaces	
60.81	octagonal design with glued folding base and attached lid (square lid & square base pushed against each other)	0
60.82	12 cornered design with glued edges and attached tick in flap (6 cornered base and lid slotted into each other)	0
60.90	wallet	
60.91	without end flap (open)	0
60.92	with end flap (closed)	0
60.93	with end flap secured	0
70 Other folding cartons with non flat surfaces (variable volumes)		
70.00	pillow pack (folding carton with curved panels)	
70.01	with end flap completely covered	0
70.02	with dust flap & tear strip	0
70.50	container (with or without lid)	
70.51	as flat bag	0
70.52	as bag with folded basis	0
70.53	as bag with folded sides	0
70.54	as bag with folded basis and sides	0
70.60	round cup(open)	
70.61	cylindrical in 2 parts	
70.62	conical in 2 parts	0
80 Complementary packaging devices		
80.00	compartment inlay - separately delivered	
80.01	flat inlay	0
80.02	inlay with 2 side panels	0
80.03	inlay with 4 side panels	0
80.10	separators attached to a folding carton for product positioning - integrated in the design	
80.11	diecutted platform for 5 bottles	0
80.12	diecutted platform for 3 bottles	
80.13	for specific product positioning	0
80.20	compartments / separators inserted in folding cartons (applicable to group A and F10 designs)	
80.21	2 compartments	0
80.22	3 compartments	0
80.23	diagonal double compartment	0
80.24	as uneven compartments	0
80.30	inserts/ separators	
80.31	inserted cross partitions	0
80.40	back supports	
80.41	stud of back support	0
80.50	blister card	
80.51	single wall	0
80.52	folder	0
80.53	triple wall folder	0

Coding of the group F

Group Name : F

The group F contains a collection of variations on design styles from the different groups.

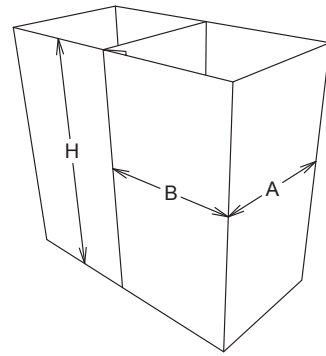
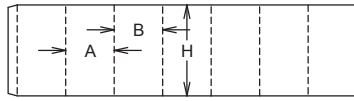
The purpose of this group is apart from allocating a unique code to certain customized design but also to demonstrate the multi functionality which can be reached with folding cartons.

The unique code should only be used for new designs which have exactly the same features.

New codes needs to be developped for new developped designs.

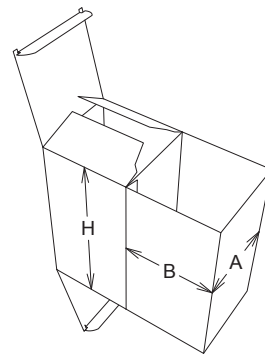
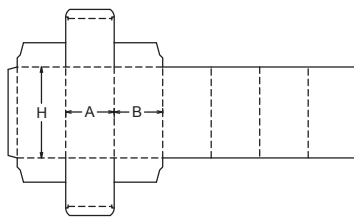
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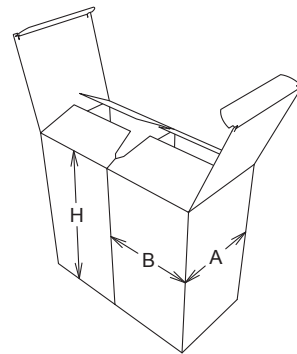
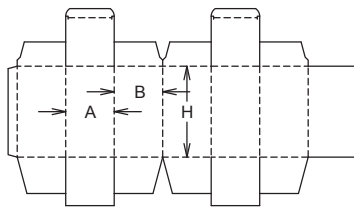
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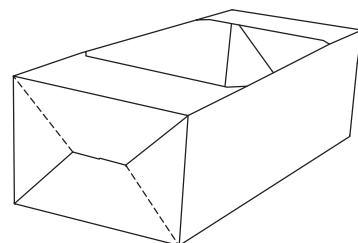
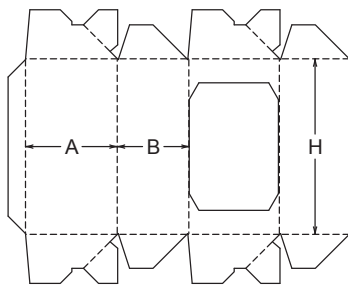
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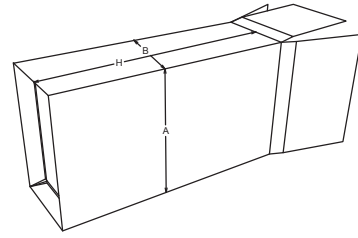
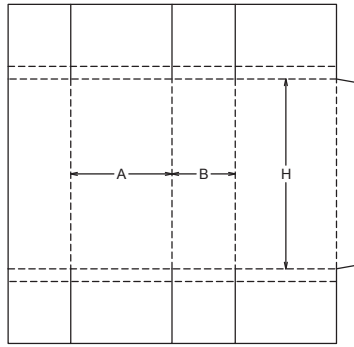


F10.41.00.00

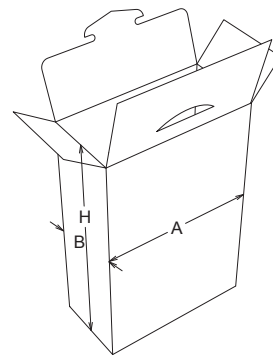
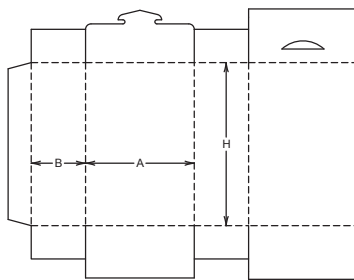
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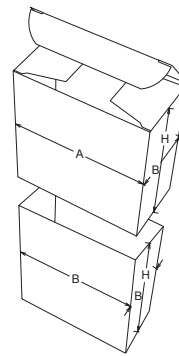
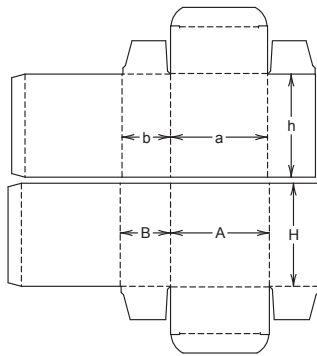
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F10.81.00.00

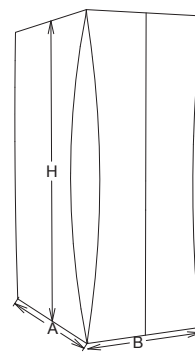
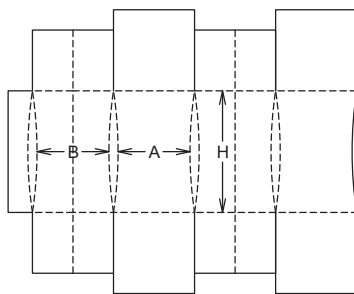


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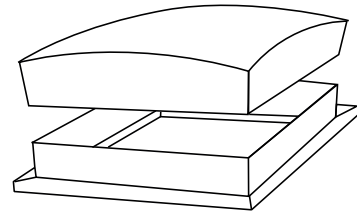
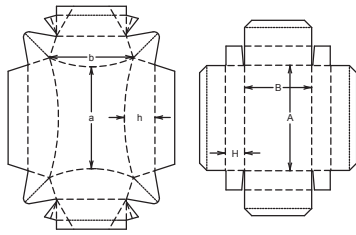


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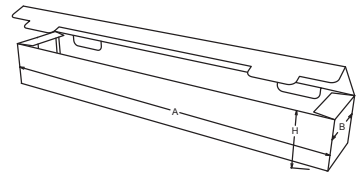
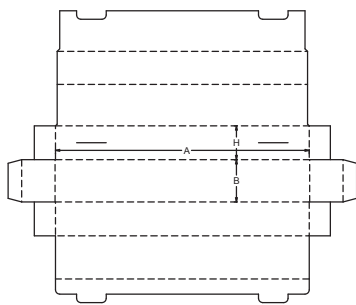
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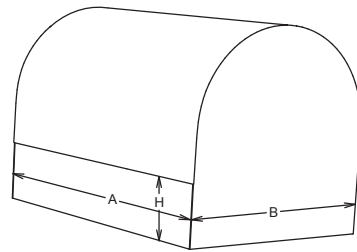
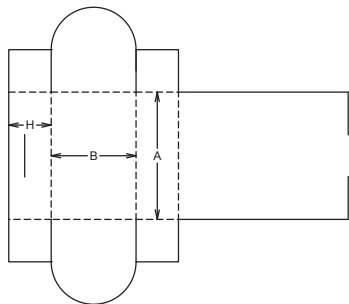


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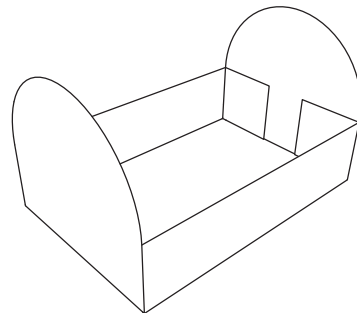
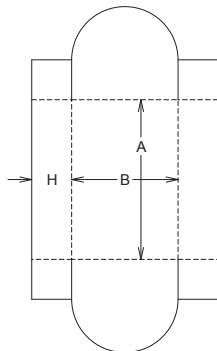
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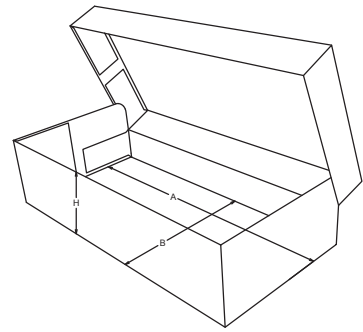
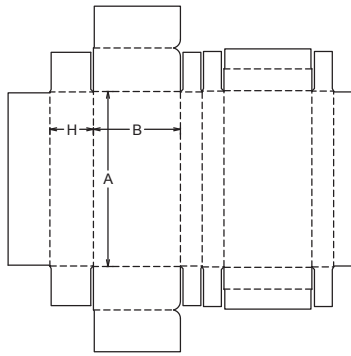


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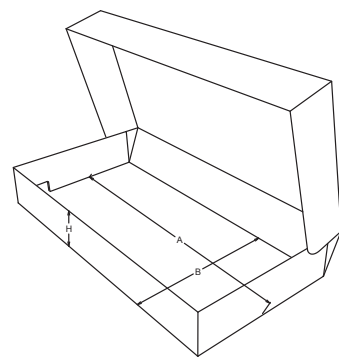
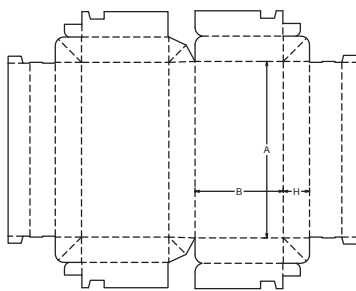
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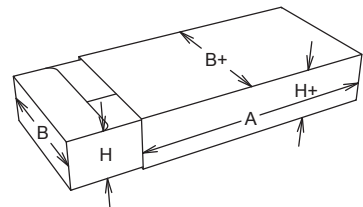
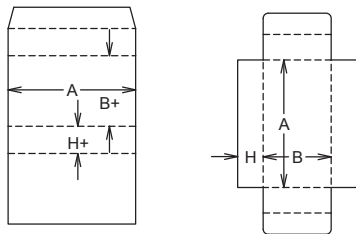


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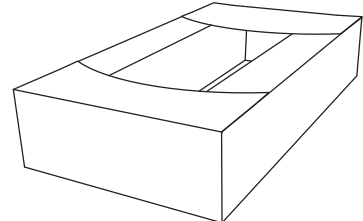
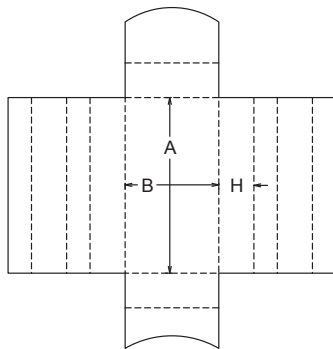
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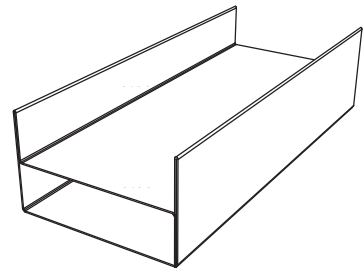
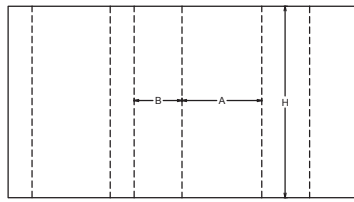


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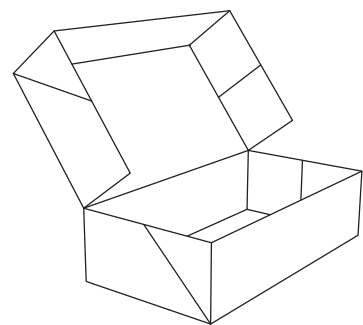
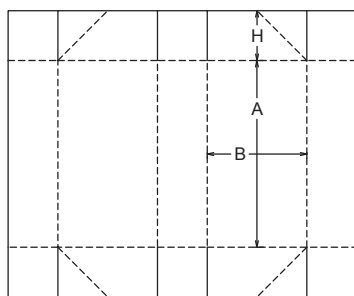


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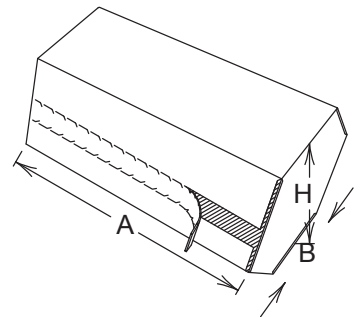
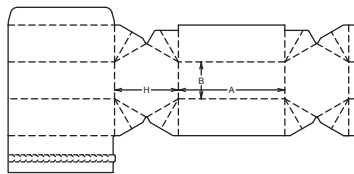


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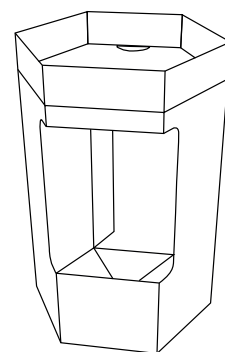
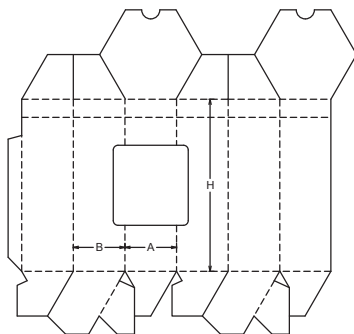
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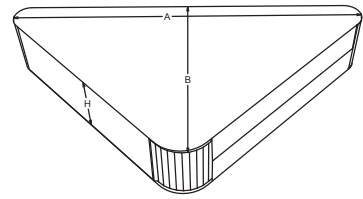
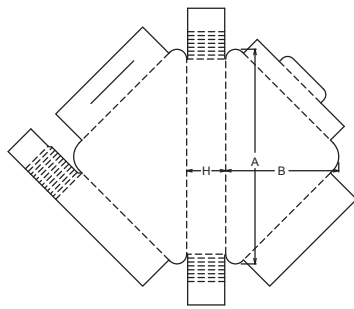
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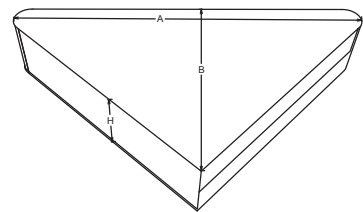
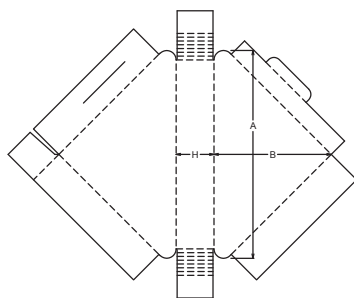
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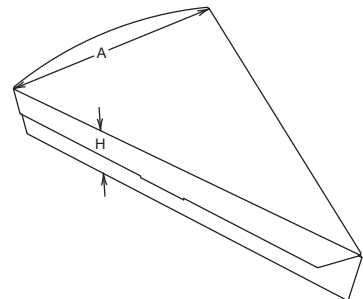
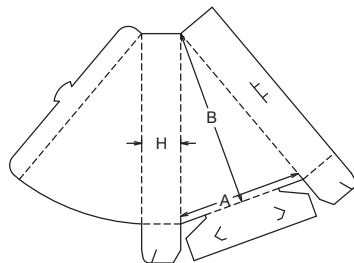
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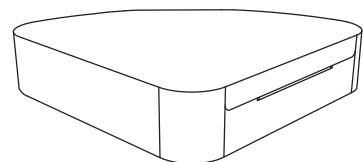
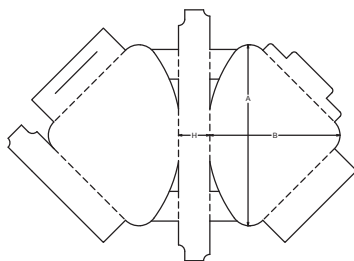
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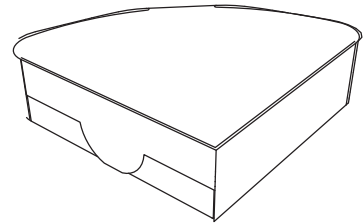
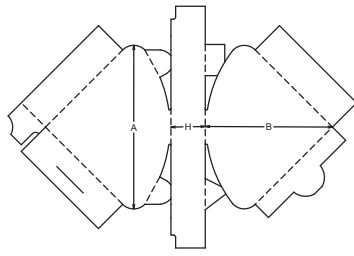
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F40.04.00.00.22

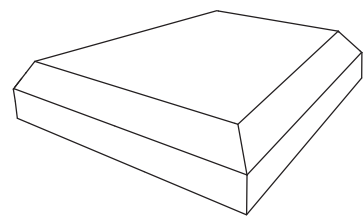
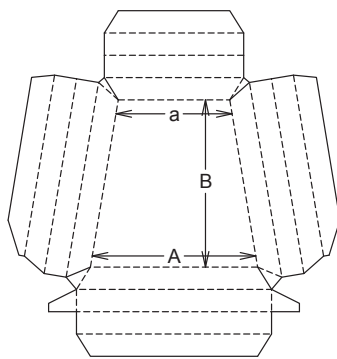


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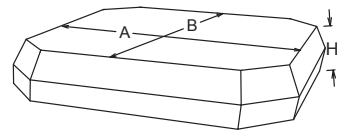
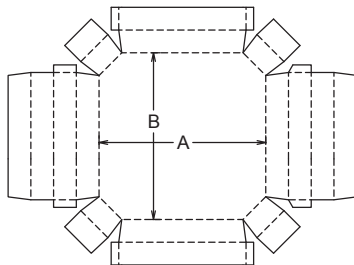
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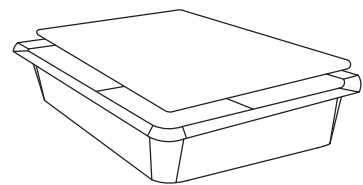
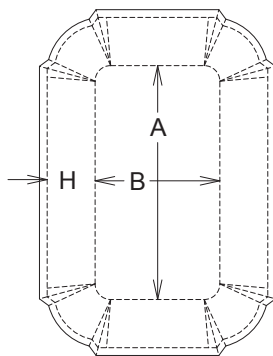
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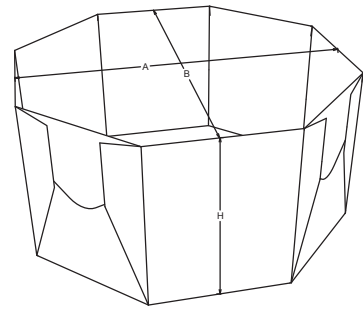
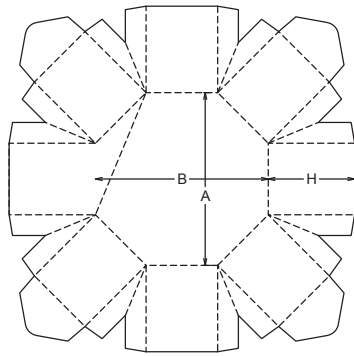


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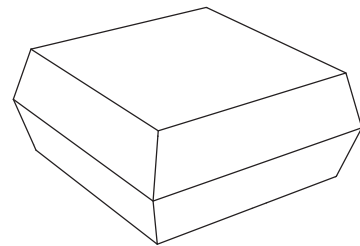
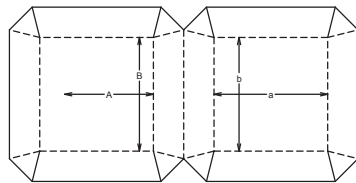


F40.62.00.00



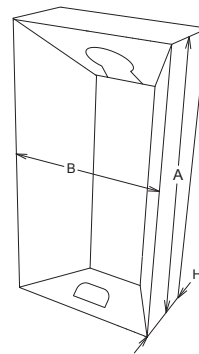
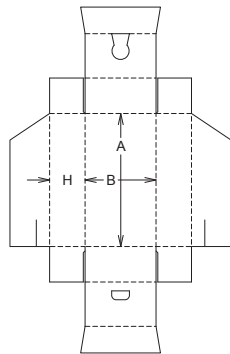
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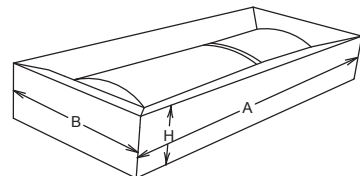
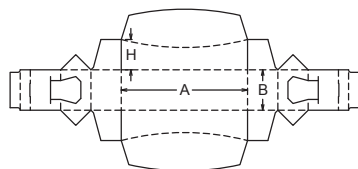
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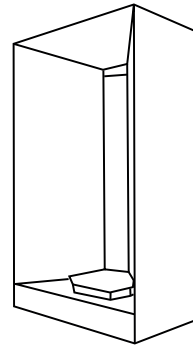
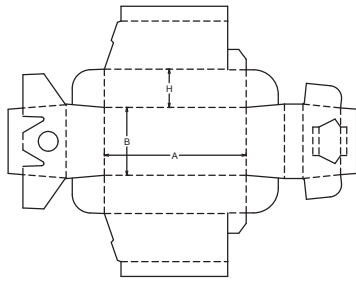


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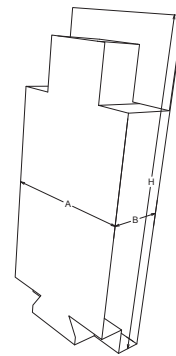
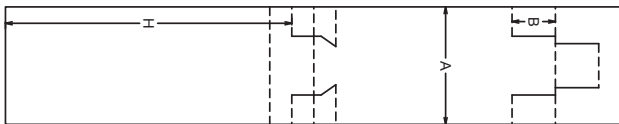
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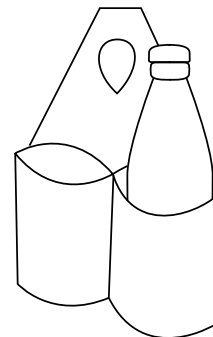
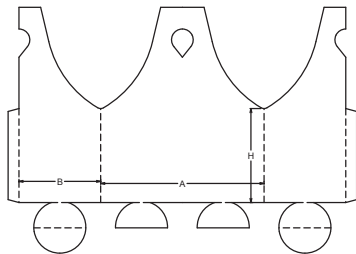
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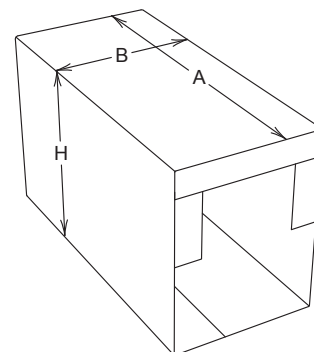
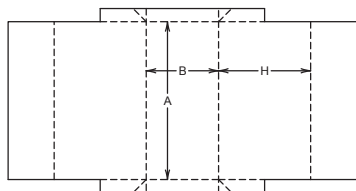
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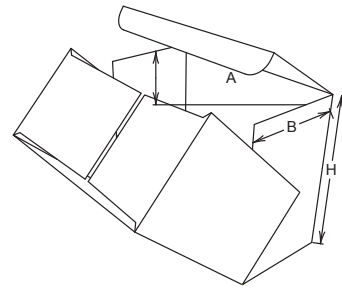
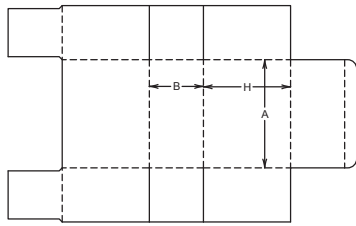
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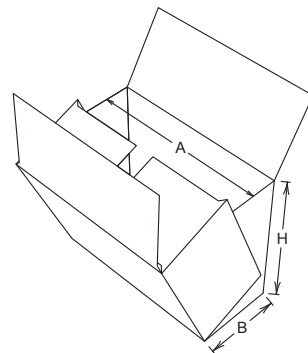
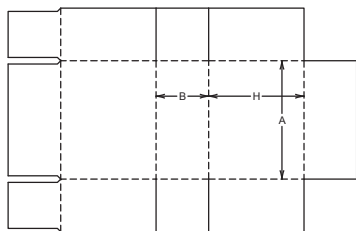
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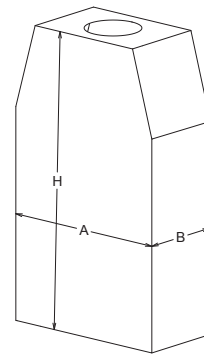
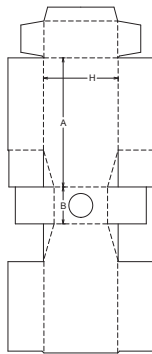
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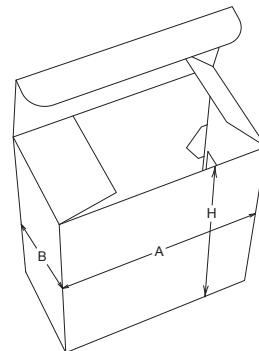
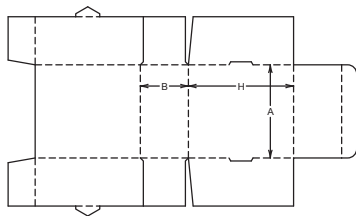
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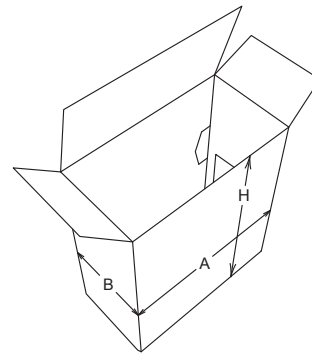
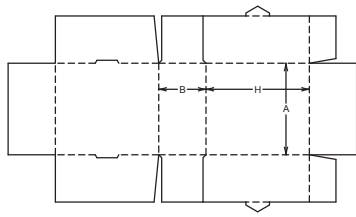
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F60.06.00.00

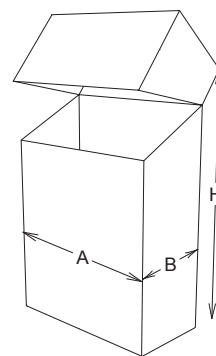
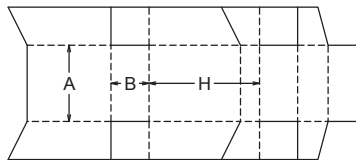


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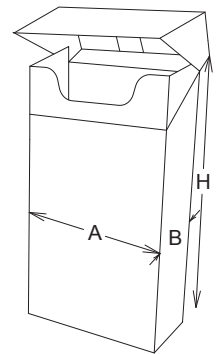
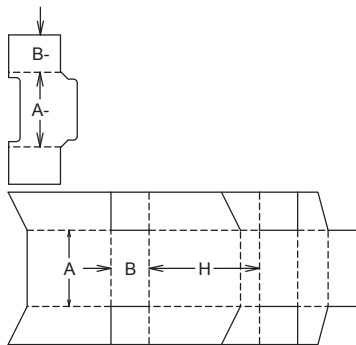
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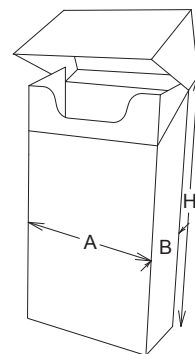
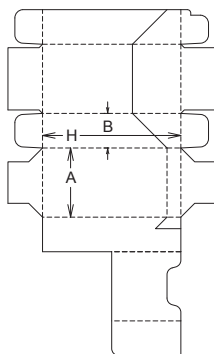
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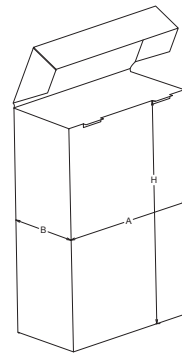
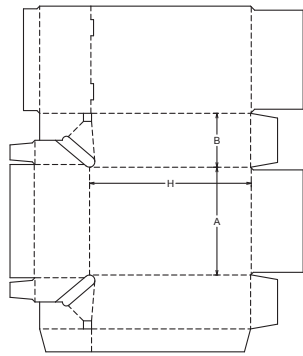


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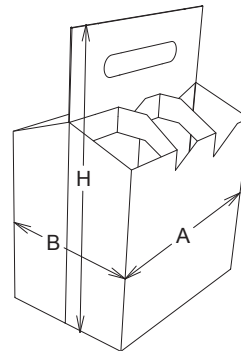
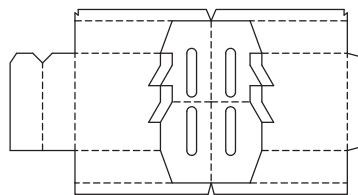


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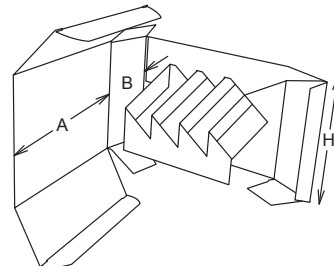
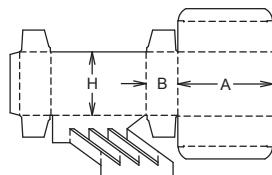


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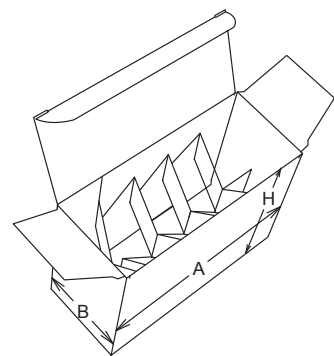
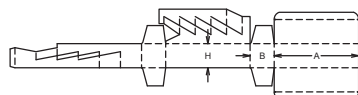


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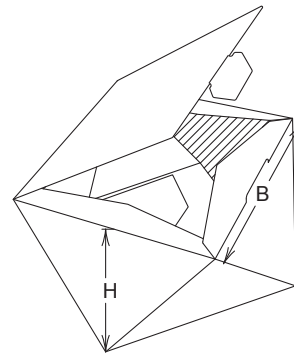
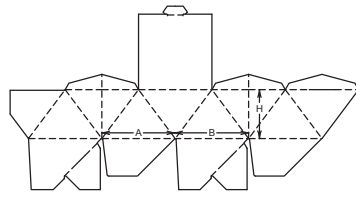


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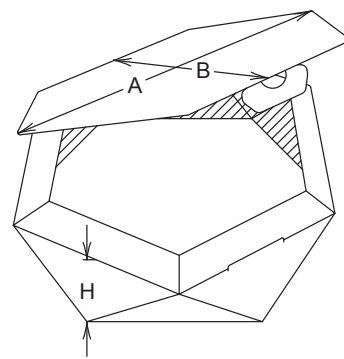
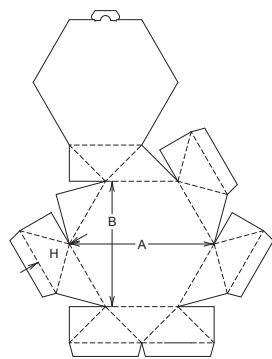
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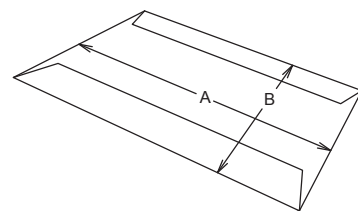
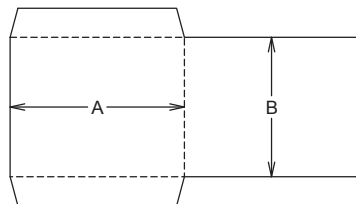


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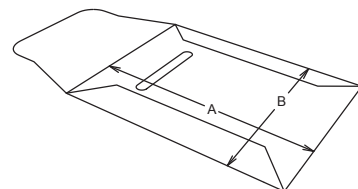
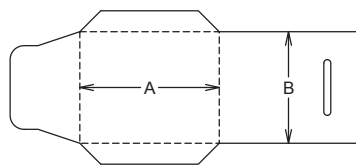
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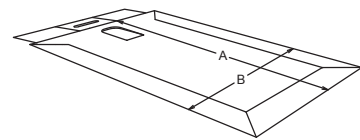
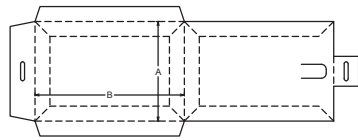


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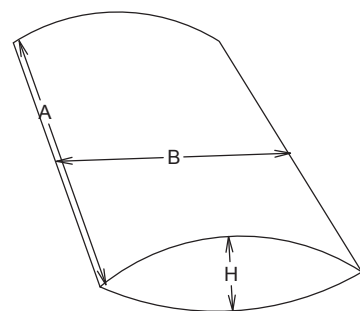
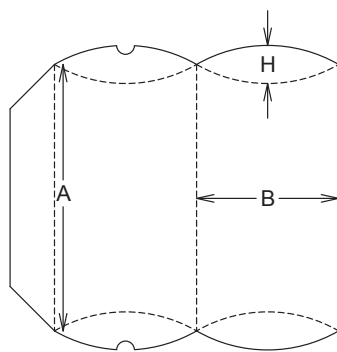


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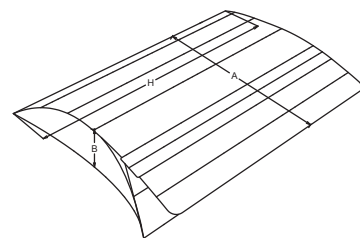
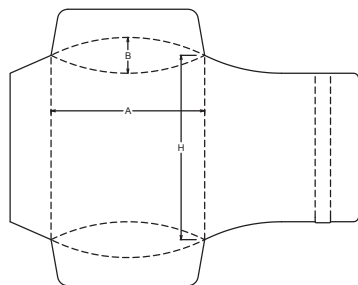


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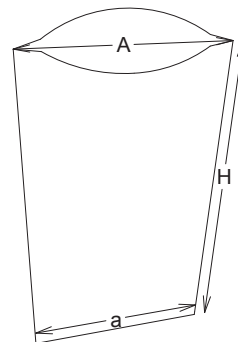
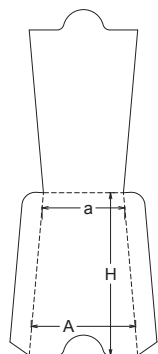


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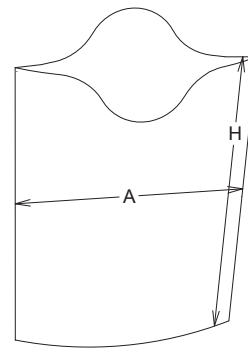
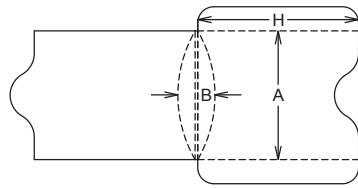
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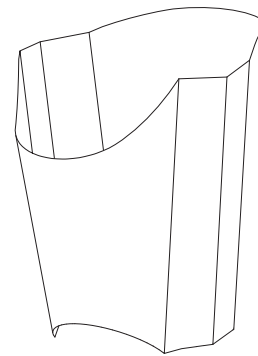
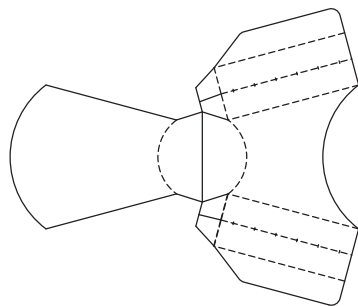
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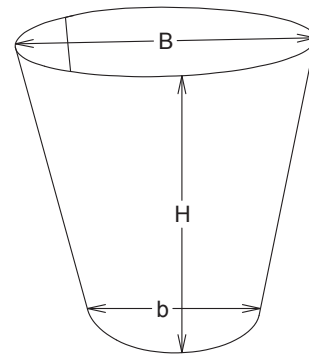
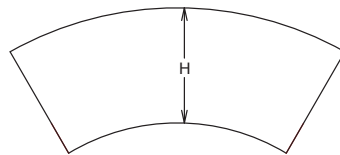
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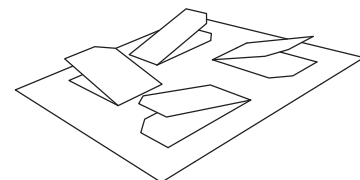
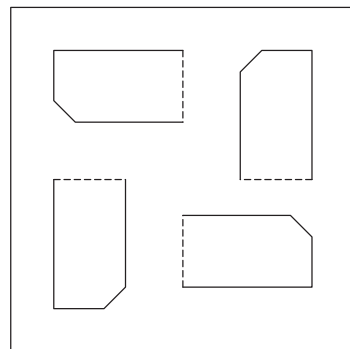
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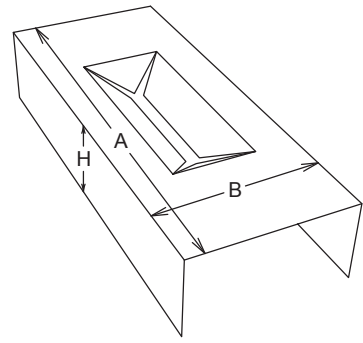
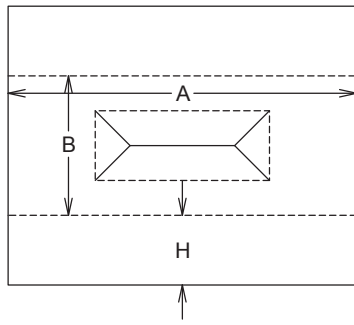
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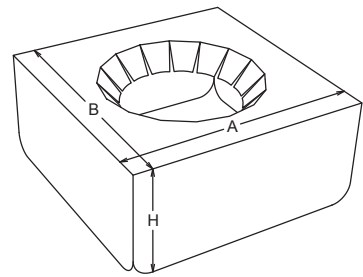
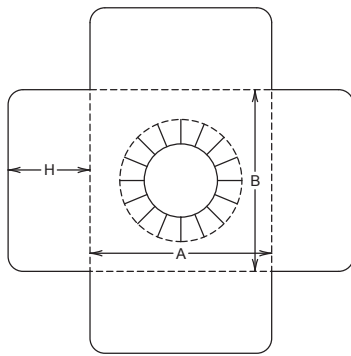


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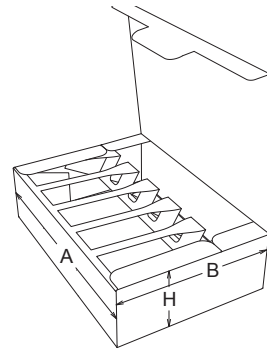
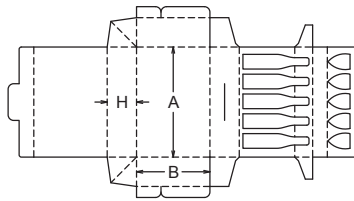


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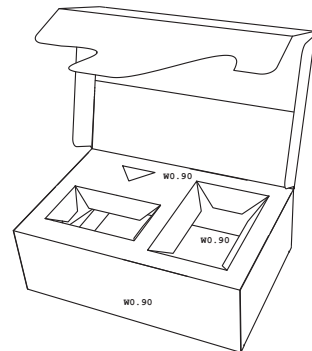
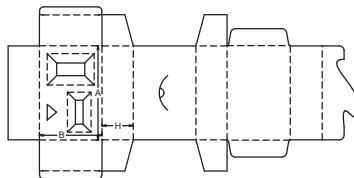


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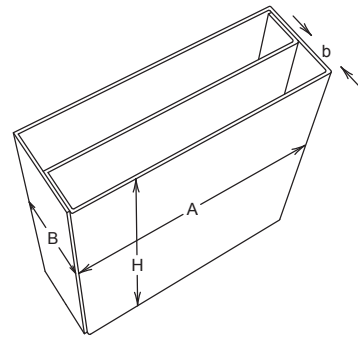
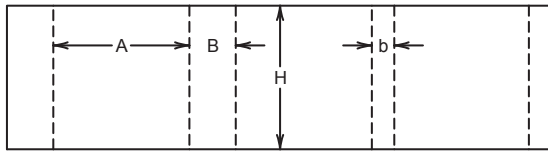
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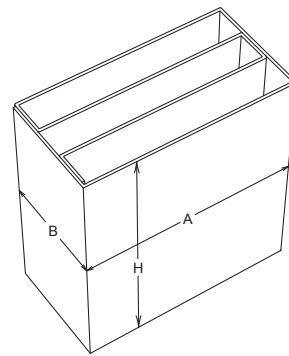
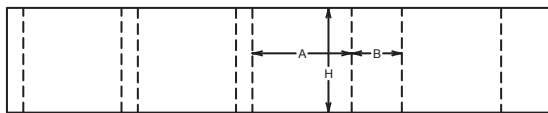
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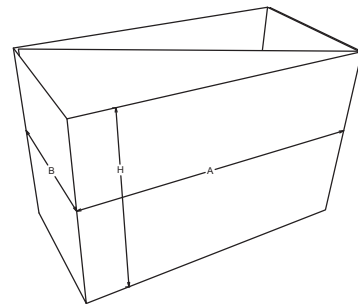
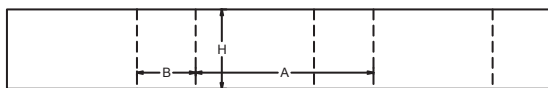
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F80.22.00.00

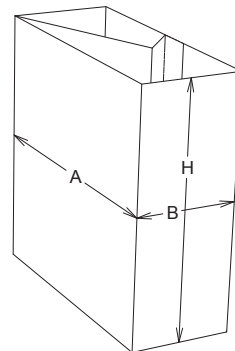
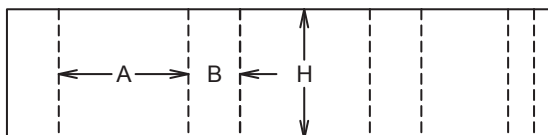


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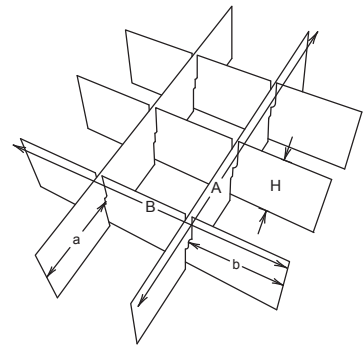
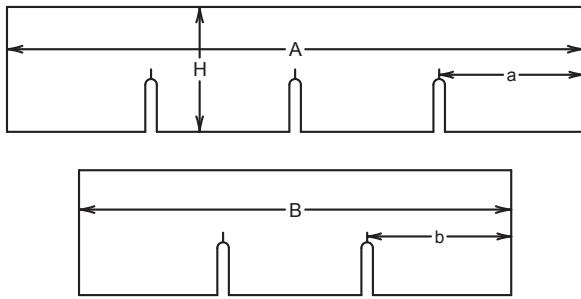


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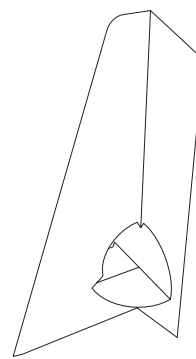
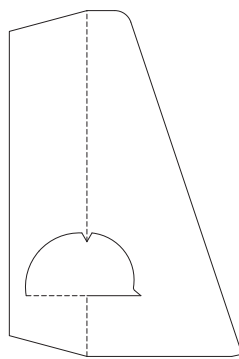
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F80.41.00.00

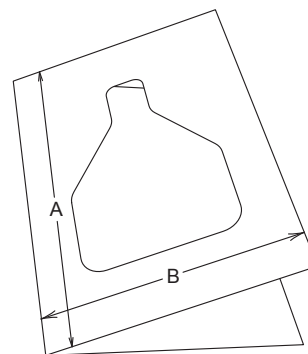
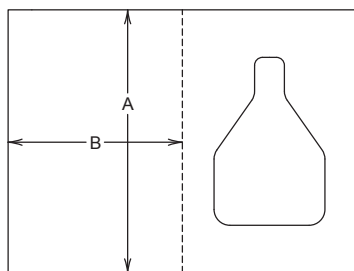


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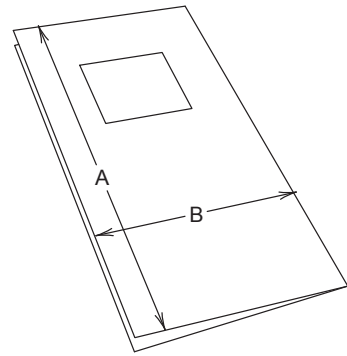
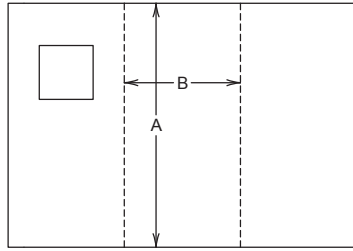
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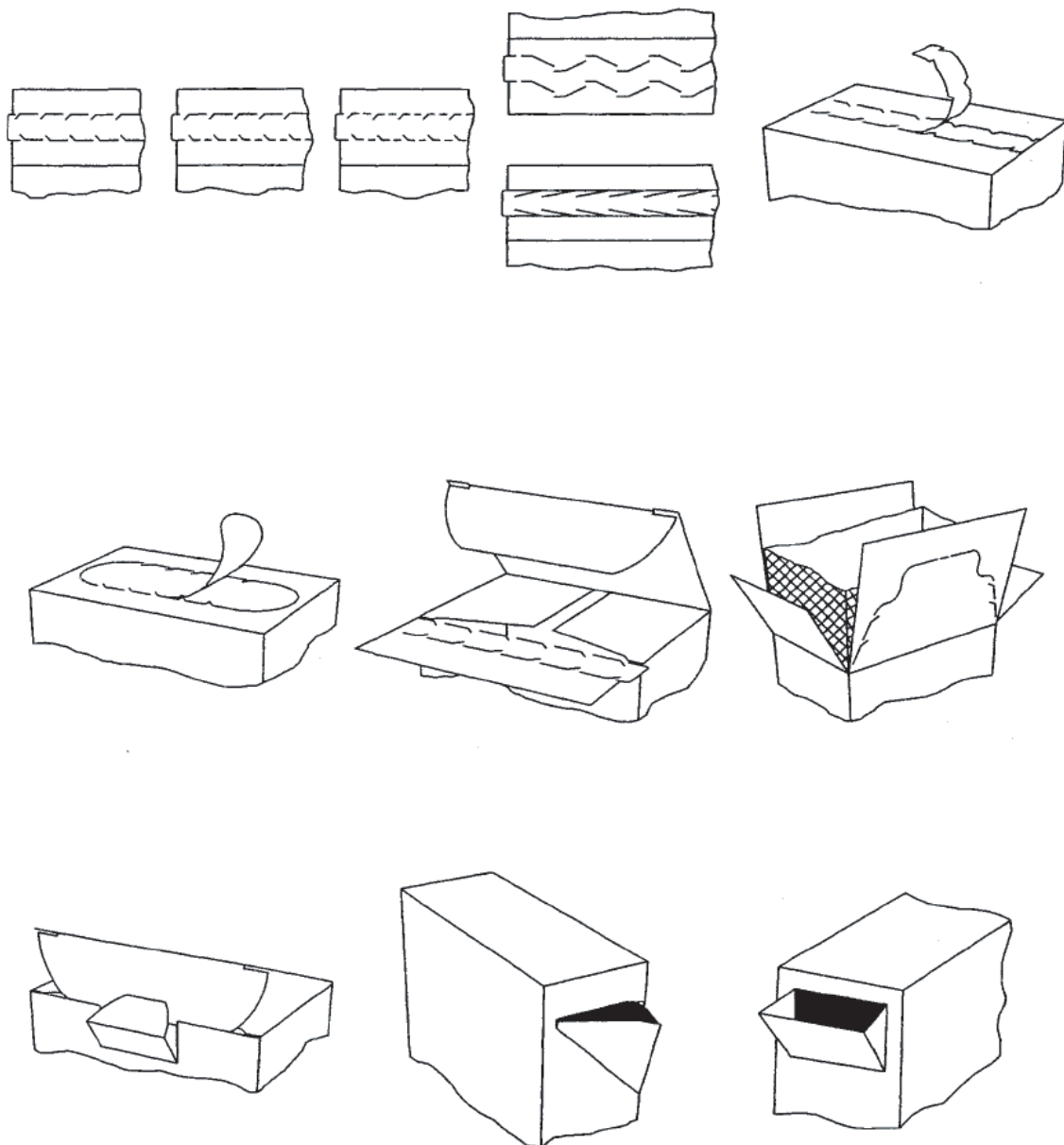
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Group X: Auxiliary devices for all groups

Definition:

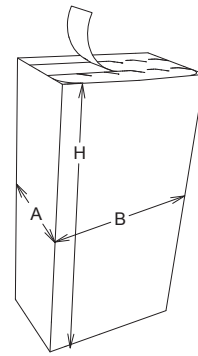
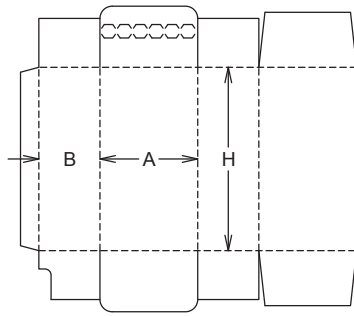
- Special features/specific attributes which can be used in combination with the design styles of Groups A,B,C,D,E and (some) F



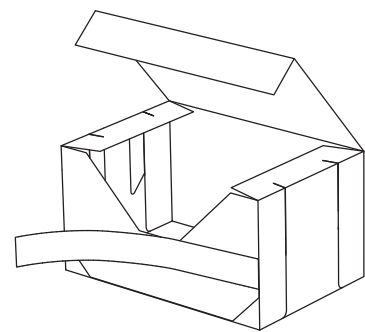
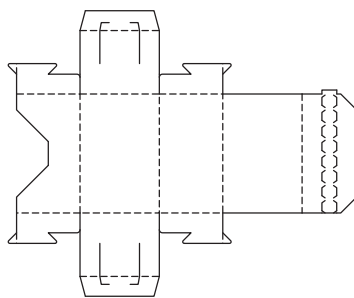
Group X: Auxiliary devices

10	zipper flaps
11	zipper strip
12	tear strip with 2 sided scores
13	embedded reinforcing tape
14	perforated tear out strip
20	opening and closing flap systems
21	tear strip in combination with locking device
22	reclosable opening full cover with locking device
23	reclosable opening with reduced flaps with locking device
24	flap combinations
25	tuck in flap in combination with full covering counterflap
26	crash lock glued to dustflap of the tuck in closure
27	tuck in closure with zipper strip
28	tear off / zip open top cover over the width of the carton
29	tear off / zip open top cover over the length of the carton
30	openings with securing flaps
31	tuck in closure with securing counterflap tucked in
32	tuck in closure with locking lugs
33	tuck in closure with securing lock
34	closure system with male/female clawlock device (used in B40.21.00.54(34))
35	tuck in closure usable as display (previously F2031 and F 2011)
36	with tuck out glued lid (previously F2032)
37	tuck in end with tear of strips (previously F2034)
38	reclosable opening with claw lock system
40	pour out devices
41	not reclosable pour out opening
42	push through (crush) pour out system (perforated)
43	reclosable flap using the extended glue flap as basis for the opening (mono material)
44	reclosable flap using the extended glue flap as basis for the opening (mono material) tear down
45	reclosable flap using the extended glue flap as basis for the opening (mono material) tear sideways
46	reclosable pour out device (flap in and out corner)
47	reclosable pour out device to be outfolded on th side of the carton
48	reclosable opening using the outfolded dust flap
50	reclosable opening (other material) embedded in the carton
51	reclosable opening (other material) embedded in the carton, Plastic, metal , carton
52	screw cap embedded in the carton
60	devices for hanging/carrying
61	extended panel single walled with euroslot opening
62	extended panel double walled with euroslot opening
63	extended panel single walled with carrying handle opening
64	extended panel double walled with carrying handle opening
65	extended panel single walled with round opening
66	extended panel double walled with round opening
70	display panels between top and bottom
71	extended panel single (previously F1001)
72	extended panel - double - folded over - glued (previously F1002)
73	extended panel - double - glued together (previously F 1003)
80	carrying handles (systems)
81	formed of the 2 main flaps (previously F1031)
82	formed of the 2 main flaps with recessed top (previously F1032)
83	formed of 2 side flaps , tuck in (previously F1033)
84	formed of 2 flaps, tuck in side flaps (previously F1034)
85	gable top of 2 tuck ins (previously F1035)
86	with separate handle with side wall (previously F1036)
Coding of the group X	
<p>Group Name : X</p> <p>The group X contains a collection of specific attributes which can be used in combination with designs of the groups A,B,C,D and some designs of the F group.</p> <p>When one of the group X features is used for a packaging out of the design style groups A,B,C,D and F, the group X code number (2 digits) should be added to the design code.</p> <p>The full code for a packaging could consist of : A,B,C,D,F (group indicator) and 5 groups of double digits.</p> <p>Example: A.00.00.00.00.00 ==> the last 2 digits describing the group X special feature</p>	

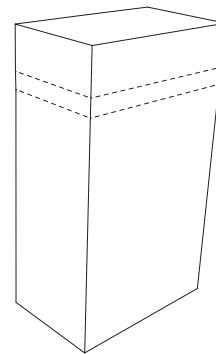
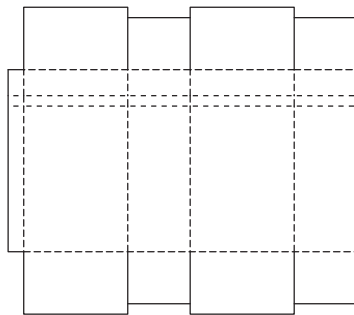
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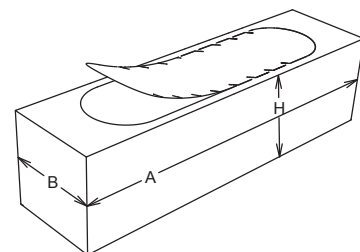
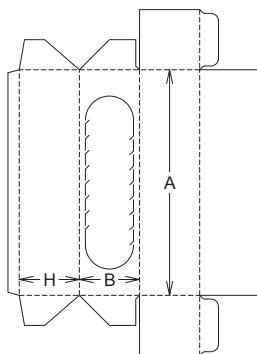
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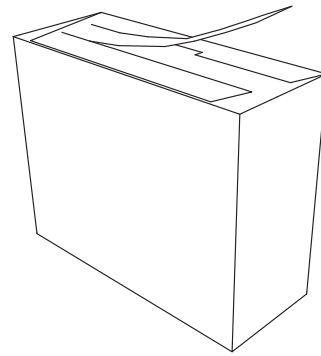
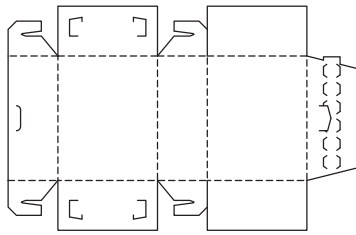
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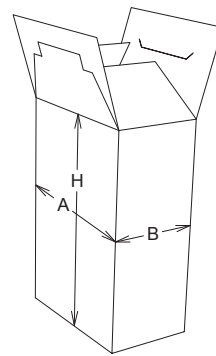
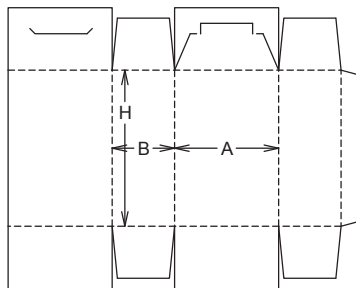
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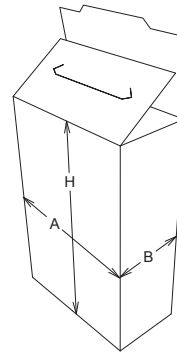
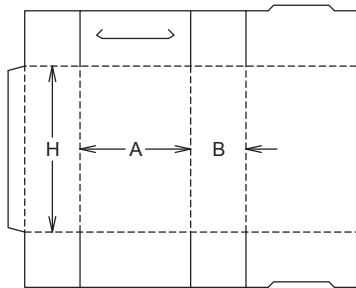
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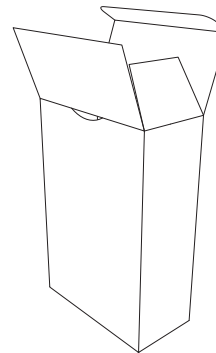
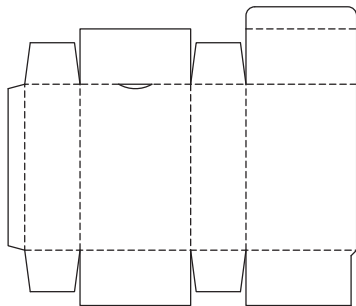
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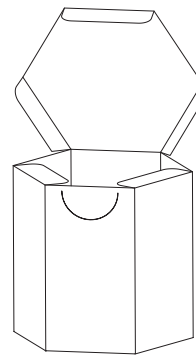
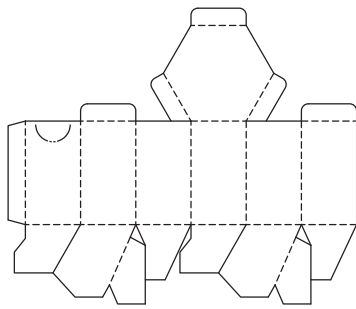
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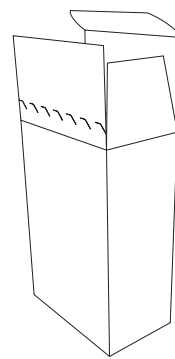
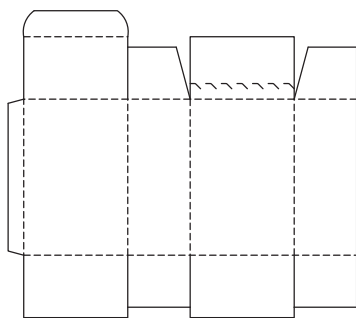
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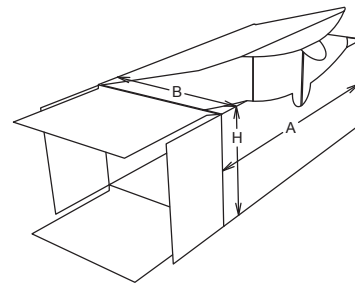
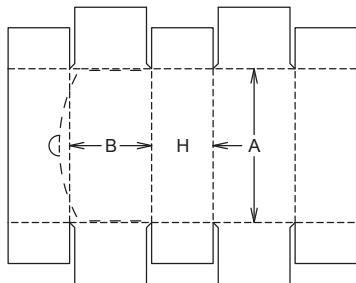
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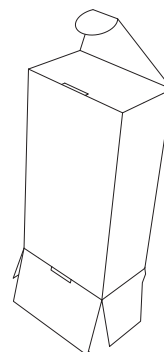
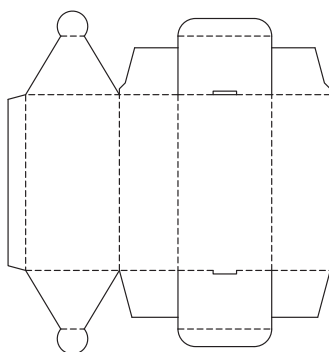
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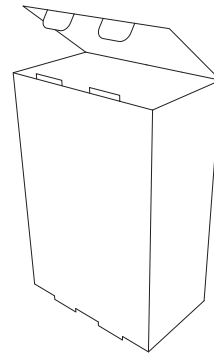
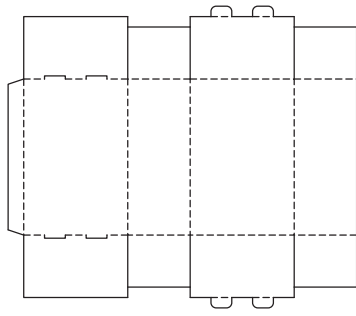
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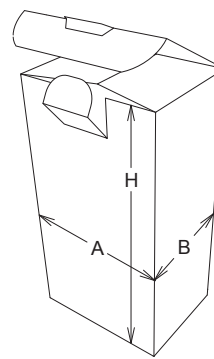
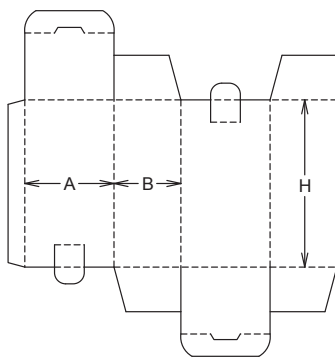
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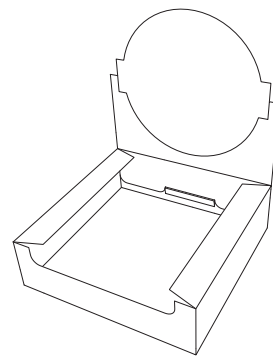
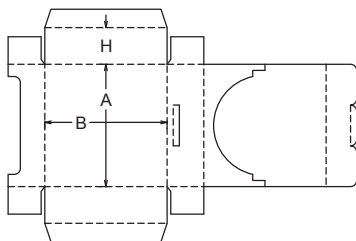
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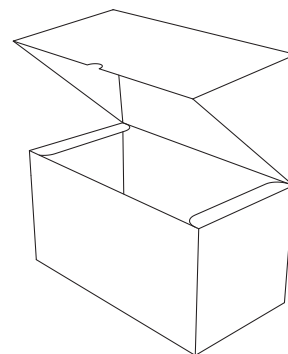
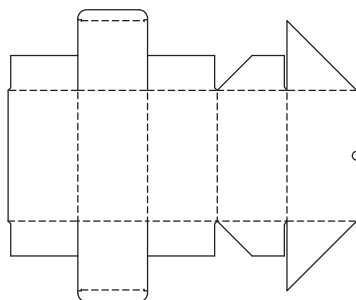
X33



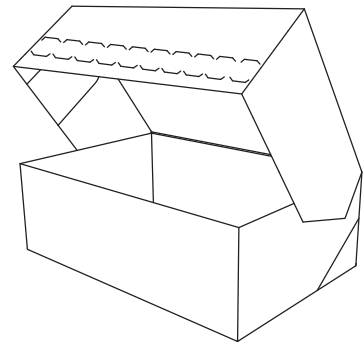
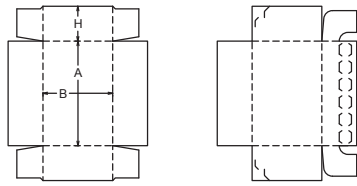
X35



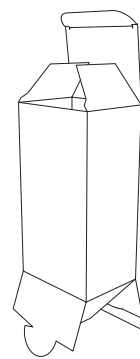
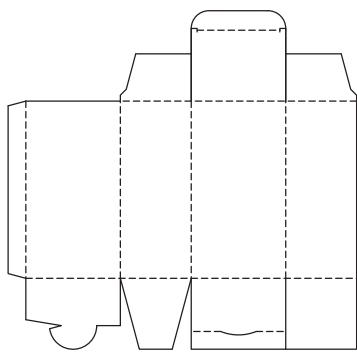
X36



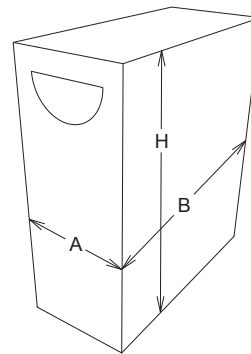
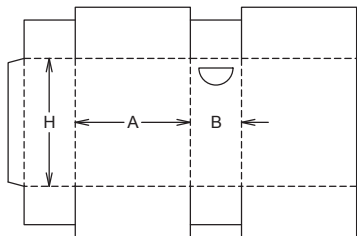
X37



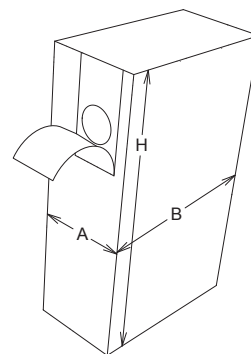
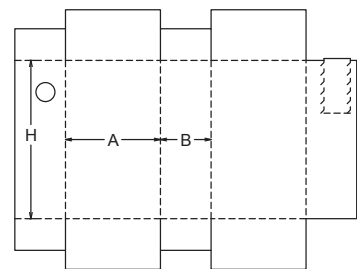
X38



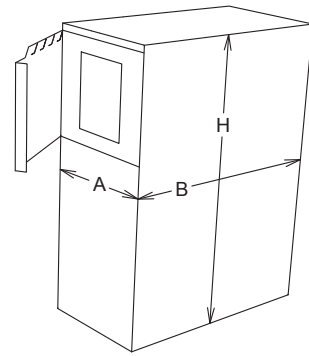
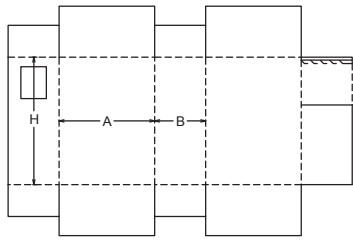
X42



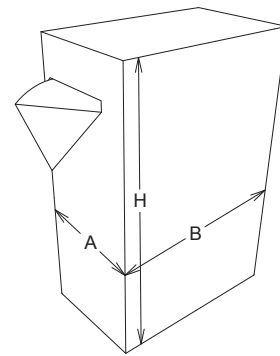
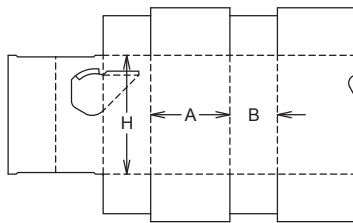
X44



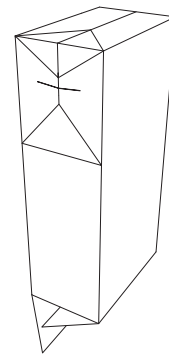
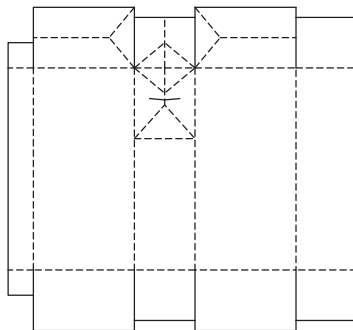
X45



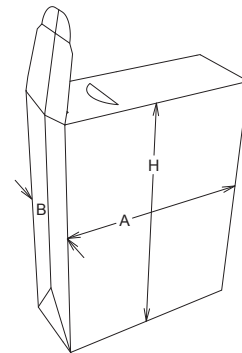
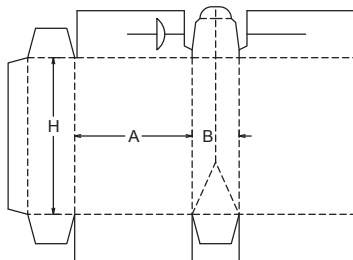
X46



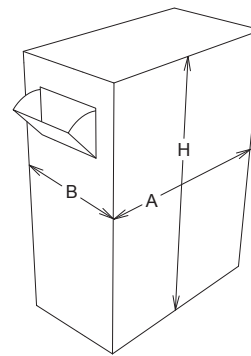
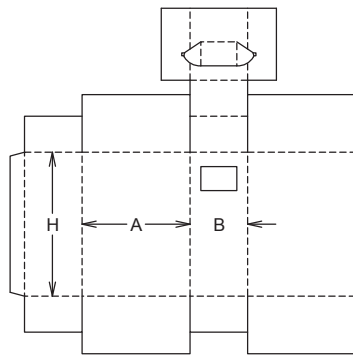
X47



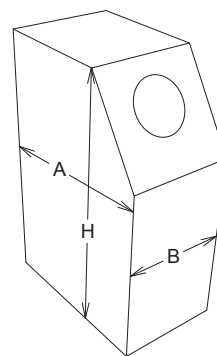
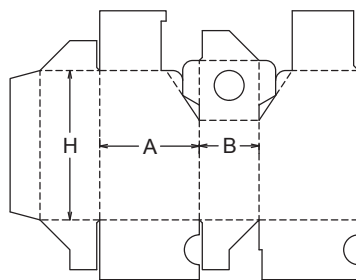
X48



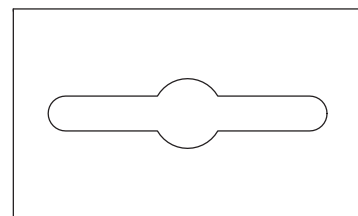
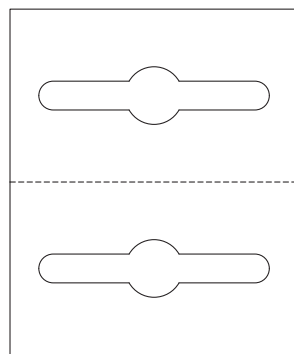
X51



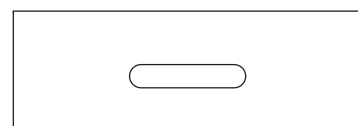
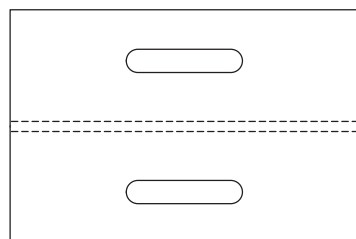
X52



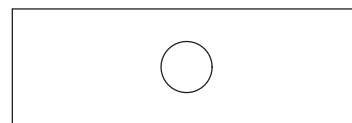
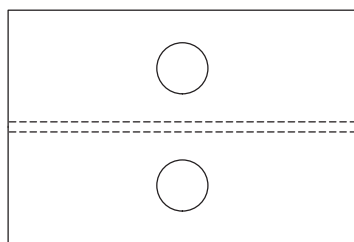
X62



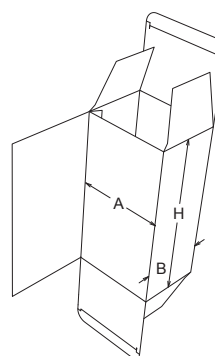
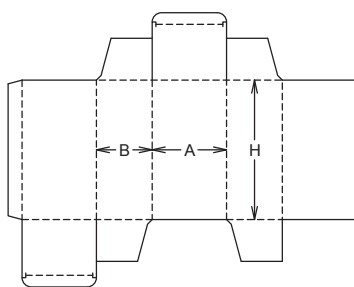
X64



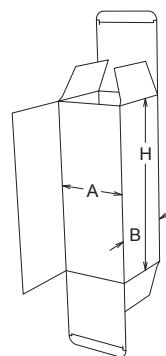
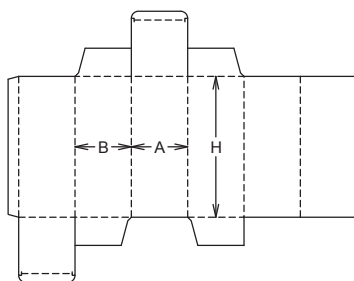
X66



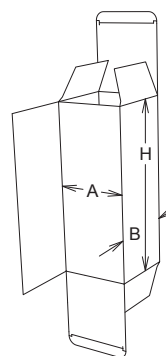
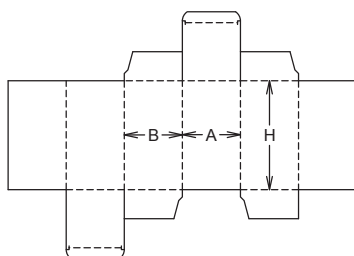
X71



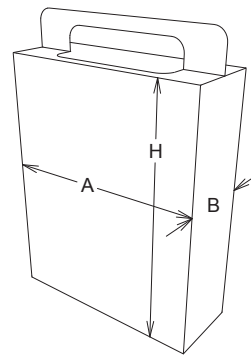
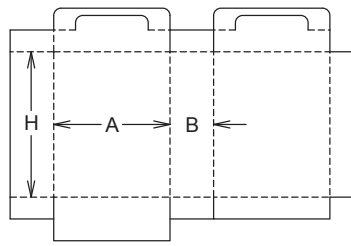
X72



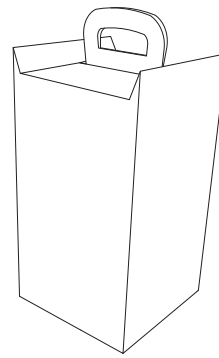
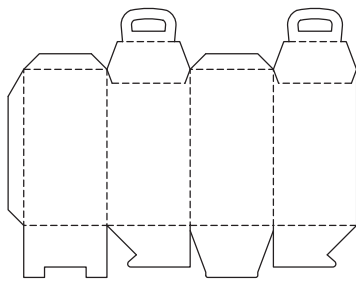
X73



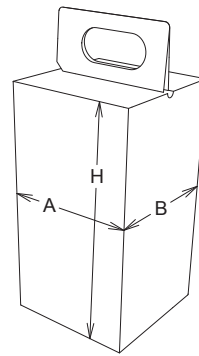
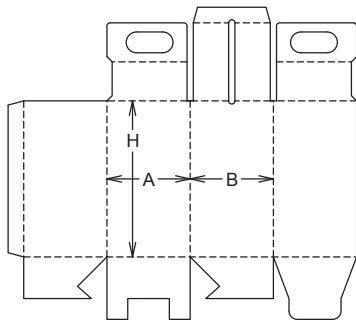
X81



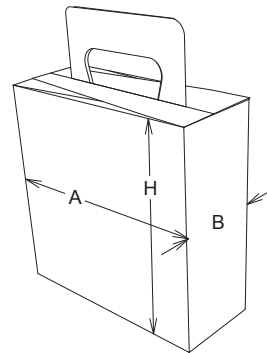
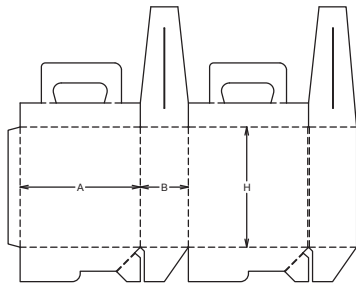
X82



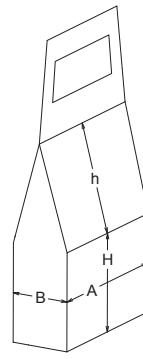
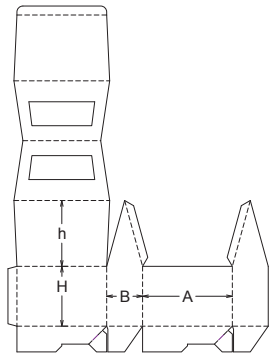
X83



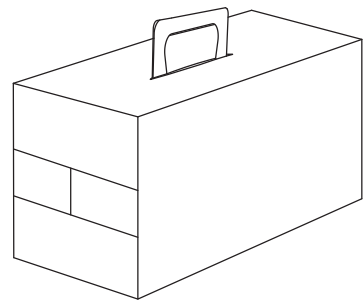
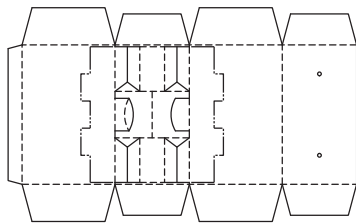
X84



X85



X86



Appendices

1. Conversion table

This conversion table contains all the design styles previously illustrated in the ECMA Code released in 1992.

Conversion table Old codes to New codes system

#	Design Style in ECMA book ('92)	New code	Alternative code
1	A0101	A01.01.00.00	
2	A0110	A01.10.00.03	
3	A0111	A01.11.00.03	
4	A0112	A01.15.00.03	
5	A0120	A01.20.00.03	
6	A0121	A01.21.00.03	
7	A0130	A01.30.00.03	
8	A0140	A01.40.00.03	
9	A0141	A01.41.00.03	
10	A0145	A01.45.00.01	
11	A0150	A01.50.00.01	
12	A0155	A01.55.00.01	
13	A0156	X 38	only closure system to be coded
14	A0160	A01.60.00.00	
15	A0170	A01.70.00.00	
16	A0175	A01.75.00.03	
17	A1001	A10.01.03.00	
18	A1010	A10.10.03.03	
19	A1020	A10.20.03.03	
20	A1101	A11.01.03.00	
21	A1111	A11.11.03.01	
22	A2001	A20.01.03.00	
23	A2120	A20.20.03.01	
24	A2220	A20.20.01.03	
25	A2320	A20.20.01.01	
26	A2420	A20.20.03.03	
27	A3001	A30.01.03.00	
28	A4001	A40.01.03.00	
29	A4020	A40.20.03.03	
30	A4101	A41.01.03.00	
31	A4501	A45.01.01.00	
32	A4520	A45.20.01.03	
33	A5001	A50.01.01.00	
34	A5020	A50.20.01.03	
35	A5501	A55.01.01.00	
36	A5520	A55.20.01.03	
37	A5601	X38	only bottom closure to be coded
38	A5620	X38	only bottom closure to be coded
39	A6001	A60.01.00.00	
40	A6020	A60.20.00.03	
41	A6045	A60.45.00.01	
42	A6101	A61.01.01.00	
43	A6120	A61.20.01.03	
44	A7001	A70.01.00.00	
45	A7020	A70.20.00.03	
46	A7070	A70.70.00.00	
47	B2001/B2101	no code	
48	B2201	no code	
49	B2301	no code	
50	B2401	no code	
51	B3001	no code	
52	B3101/B3301	no code	
53	B3201/B3401/B3501	no code	
54	B1010	B10.02.00.00	glued version : B48.20.00.00 // preglued B30.02.00.00
55	B1011	B10.04.00.00	glued version: B48.21.00.00 // preglued B30.04.00.00
56	B1020	B10.02.00.00	glued version: B48.20.00.00 // preglued B30.02.00.00
57	B1021	B11.02.00.00	preglued : B31.02.00.00
58	B1111	B11.04.00.00	preglued : B31.04.00.00

#	Design Style in ECMA book ('92)	New code	Alternative code
59	B1221	D20.21.02.00	
60	B1310	B32.02.00.00	
61	B1410	B14.02.00.00	glued version : B49.20.00.00
62	B2001	no code	locking flaps system
63	B2020	B10.01.00.00	preglued : B30.01.00.00
64	B2110	B20.01.00.00	
65	B2111	B20.04.00.00	
66	B2150	B20.01.00.50	
67	B2152	B20.01.00.55	
68	B2201	no code	locking flaps system
69	B2301	no code	locking flaps system
70	B2401	no code	locking flaps system
71	B2411	B20.04.00.00	
72	B3001	no code	locking flaps system
73	B3010	B20.05.00.00	
74	B3101	no code	locking flaps system
75	B3110	B20.06.00.00	
76	B3201	no code	locking flaps system
77	B3210	B20.07.82.00	
78	B3310	B15.06.00.00	
79	B3353	B15.06.00.53	
80	B3360	B15.06.00.60	
81	B3410	B15.07.82.00	
82	B3510	F20.37.00.00	
83	B4010	B40.20.00.00	
84	B4011	B40.21.00.00	
85	B4020	B40.22.00.00	
86	B4021	B40.23.00.00	
87	B4110	B40.20.84.00	
88	B4150	B40.20.82.50	
89	B4153	B40.20.83.53	
90	B4160	B40.20.83.60	
91	B4210	B42.20.00.00	
92	B4310	B42.20.83.00	
93	B4410	B44.20.00.00	
94	B4411	B44.21.00.00	
95	B4420	B44.22.00.00	
96	B4421	B44.23.00.00	
97	B4510	B20.08.82.00	glued version B44.20.82.00
98	B4511	B44.21.82.00	
99	B4520	B44.23.82.00	adapted 25/06/9
100	B4521	B44.23.82.00	
101	B4610	B46.20.00.00	
102	B4710	B46.20.81.00	
103	B4810	B48.20.00.00	
104	B4910	F20.37.00.00	
105	B4950	F20.36.00.00	adapted 5/05/09
106	B6020	B40.22.00.61	
107	B6021	B40.21.00.54	
108	B6120	F20.60.00.00	
109	B6121	B40.23.00.54	
110	B6221	B40.21.00.54.34	
111	C1010	C10.10.10.10	
112	C1011	C10.10.11.11	
113	C1012	C10.10.10.15	
114	C1020	C10.10.20.20	
115	C1021	C10.10.20.21	
116	C1055	C10.10.90.20	
117	C1110	C20.10.10.10	

#	Design Style in ECMA book ('92)	New code	Alternative code
118	C1120	C20.10.20.20	
119	C1155	C20.10.90.20	
120	C1211	C30.10.01.11	
121	C1220	C30.10.01.20	
122	C1255	C30.10.01.90	
123	C2110	C20.20.10.10	
124	C2120	C20.20.20.20	
125	C2155	C20.20.55.20	
126	C2160	C20.20.60.20	
127	C2210	C30.20.10.01	
128	C2255	C30.20.55.01	
129	C3010	C10.30.10.10	
130	C3111	C20.30.11.11	
131	C4010	C10.40.10.10	
132	C4011	C10.40.11.11	
133	C4020	C10.40.20.20	
134	C4021	C10.40.60.21	
135	C4060	C10.40.60.20	
136	C4080	C10.40.90.90	
137	C4110	C20.40.11.11	
138	C4180	C20.40.11.90	
139	C4220	C30.40.01.20	
140	C5010	C10.50.11.11	
141	C5111	C20.50.11.11	
142	C5280	C30.50.01.90	
143	D1010	D20.10.20.00	
144	D1011	D10.10.11.00	glued version D20.10.21.00
145	D1050	D20.10.20.55	
146	D1051	D20.13.20.63	
147	D1110	D10.11.09.00	
148	D1211	D10.11.01.00	
149	D2010	D20.20.20.00	
150	D2050	D20.20.20.50	
151	D2051	D20.20.20.63	
152	D2111	D10.21.04.00	
153	D2210	D10.21.01.00	
154	D2311	D10.23.01.00	
155	D3010	D20.40.20.00	
156	D3050	D20.40.20.50	
157	D3051	D20.40.20.63	
158	D3111	D10.41.04.00	
159	D3210	D10.41.01.00	
160	D4010	D20.50.20.00	
161	D4011	F40.62.00.00	
162	D4050	D20.50.20.52	
163	D4051	D20.50.20.00	
164	D4110	D10.51.09.00	glued version D20.51.09.00
165	D5010	F40.03.00.00.22	
166	D5110	F40.03.00.00.22	
167	D6010	F40.01.00.00.22	
168	D6110	F40.04.00.00.22	
169	D6210	F40.02.00.00.22	
170	D6310	F40.05.00.00.22	
171	D7011	D20.20.21.00	
172	D7111	D20.21.21.00	
173	D7211	D20.20.21.62	
174	D7311	F40.13.00.00	
175	E1011	E10.11.00.00	
176	E1020	E10.20.00.00	
177	E1021	E10.21.00.00	
178	E1030	E10.30.00.00	

#	Design Style in ECMA book('92)	New code	Alternative code
179	E1120	E30.10.00.00	
180	E1140	E11.20.00.00	
181	E1220	E12.20.00.00	
182	E1330	E12.30.00.00	
183	E1341	E13.30.00.00	
184	E1411	E14.11.00.00	
185	E1420	E14.20.00.00	
186	E1421	E14.21.00.00	
187	E1430	E14.30.00.00	
188	E1540	E15.20.00.00	
189	E1620	E16.20.00.00	
190	E1741	E17.30.00.00	
191	E2010	E20.10.00.00	
192	E2020	E20.20.00.00	
193	E2021	E20.21.00.00	
194	E2110	E21.10.00.00	
195	E2120	E21.20.00.00	
196	E2210	E22.10.00.00	
197	E2220	E22.20.00.00	
198	E2222	E22.22.00.00	
199	E2310	E23.10.00.00	
200	E2320	E23.20.00.00	
201	E3020	E30.20.00.00	
202	E3120	E31.20.00.00	
203	E3122	E31.22.00.00	
204	E4050	is an A code	similar to A01.20.00.01
205	E4080	E40.80.00.00	
206	E4081	E40.81.00.00	
207	E4082	E40.82.00.00	
208	E5055	E50.55.00.00	
209	E5155	E51.55.00.00	
210	F1001	X71	
211	F1002	X72	
212	F1003	X73	
213	F1011	F10.11.00.00	
214	F1012	F10.12.00.00	
215	F1013	F10.13.00.00	
216	F1021	A20.82.01.00	
217	F1022	A82.82.00.00	
218	F1023	A83.82.00.00	
219	F1031	X81	
220	F1032	X82	
221	F1033	X83	
222	F1034	X84	
223	F1035	X85	
224	F1036	X86	
225	F1037	A10.15.03.03	
226	F1041	F10.41.00.00	
227	F1042	F10.42.00.00	
228	F1045	F10.45.00.00	
229	F1046	F10.46.00.00	
230	F1051	F10.51.00.00	
231	F1081	F10.81.00.00	
232	F1082	F10.82.00.00	
233	F1083	F10.83.00.00	
234	F2001	F20.01.00.00	
235	F2002	F20.02.00.00	
236	F2003	F20.03.00.00	
237	F2004	removed	

#	Design Style in ECMA book ('92)	New code	Alternative code
238	F2011	X35	
239	F2021	B15.07.82.00	
240	F2031	X35	
241	F2032	X36	
242	F2033	F20.33.00.00	
243	F2034	X37	
244	F2035	F20.35.00.00	
245	F2041	F20.41.00.00	
246	F2042	F20.42.00.00	
247	F2043	F20.43.00.00	
248	F2051	F20.51.00.00	
249	F2052	F20.52.00.00	
250	F2053	F20.53.00.00	
251	F3001	C10.10.01.01	
252	F3011	F30.11.00.00	
253	F3021	F30.21.00.00	
254	F3022	F30.22.00.00	
255	F3051	F30.51.00.00	
256	F3052	F30.52.00.00	
257	F4011	F40.11.00.00	
258	F4012	F40.12.00.00	
259	F4061	D20.50.20.00	
260	F5001	F50.01.00.00	
261	F5002	F50.02.00.00	
262	F5003	F50.03.00.00	
263	F5004	F50.04.00.00	
264	F5011	F50.11.00.00	
265	F5021	F50.21.00.00	
266	F6001	F60.01.00.00	
267	F6002	F60.02.00.00	
268	F6003	F60.03.00.00	
269	F6004	F60.04.00.00	
270	F6005	F60.05.00.00	
271	F6006	F60.06.00.00	
272	F6007	F60.07.00.00	
273	F6011	F60.11.00.00	
274	F6012	F60.12.00.00	
275	F6013	F60.13.00.00	
276	F6014	F60.14.00.00	
277	F6015	F60.15.00.00	
278	F6016	F60.16.00.00	
279	F6021	F60.21.00.00	
280	F6031	F60.31.00.00	
281	F6032	F60.32.00.00	
282	F6041	F60.41.00.00	
283	F6042	F60.42.00.00	
284	F6081	F60.81.00.00	
285	F6082	F60.82.00.00	
286	F7001	F70.01.00.00	
287	F7002	F70.02.00.00	
288	F7011	F60.91.00.00	
289	F7012	F60.92.00.00	
290	F7015	F60.93.00.00	
291	F7051	F70.51.00.00	
292	F7052	F70.52.00.00	
293	F7053	F70.53.00.00	
294	F7054	F70.54.00.00	
295	F7061	F70.61.00.00	
296	F7062	F70.62.00.00	

#	Design Style in ECMA book('92)	New code	Alternative code
297	F8001	F80.01.00.00	
298	F8002	F80.02.00.00	
299	F8003	F80.03.00.00	
300	F8011	F80.11.00.00	
301	F8012	F80.12.00.00	
302	F8013	F80.13.00.00	
303	F8021	F80.21.00.00	
304	F8022	F80.22.00.00	
305	F8023	F80.23.00.00	
306	F8024	F80.24.00.00	
307	F8031	F80.31.00.00	
308	F8041	F80.41.00.00	
309	F8051	F80.51.00.00	
310	F8052	F80.52.00.00	
311	F8053	F80.53.00.00	
312	X1010	X11	
313	X1020	X12	
314	X1030	X13	
315	X1040	X14	
316	X2010	X21	
317	X2020	X22	
318	X2030	X23	
319	X2041	X25	
320	X2042	X26	
321	X2043	X27	
322	X2051	X29	
323	X3010	X31	
324	X3020	X32	
325	X3030	X33	
326	X4011	X42	
327	X4021	X44	
328	X4022	X45	
329	X4023	X46	
330	X4024	X47	
331	X4025	X48	
332	X4031	X51	
333	X4036	X52	
334	X5010	X62	
335	X5020	X64	

2. National Associations

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Fax:	+90 - 212 - 771 46 26
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Svenska Kartongförpackningsföreningen (Sweden)

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Swisscarton(Switzerland)

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SYBA Packaging Association (Czech Republic)

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Verband der Faltschachtelindustrie (Austria)

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Verband Schweizer Druckindustrie (VSD) (Switzerland)

Vereinigung Kartonverpackung Schweiz

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3. About ECMA

About ECMA

Founded in 1960 to promote the interests of one of the most diverse sectors of the packaging industry, the European Carton Makers Association is today the established forum and officially-approved umbrella organisation for national carton associations throughout Europe.

With its seat in The Hague, The Netherlands, and its second office in Brussels, ECMA represents 500 carton producers in nearly all countries in the European Economic Area. Around 70% of the total carton market volume in Europe, and a current workforce of about 50.000 people, are represented in ECMA.

ECMA works to fulfil its mission for the benefit of member companies in a variety of functions.

Vision & Mission

ECMA is recognised as the association securing the sustainable development of the whole European folding carton industry.

It is ECMA's mission to develop, manage and maintain networking and information platforms and to represent the interests of the entire European folding carton industry.

Compliance statement

The ECMA Antitrust Guidelines are designed to ensure ECMA meetings' compliance with the legal framework as set out in art. 81 of the EC Treaty, which prohibits all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between member states, and which have as their object of effect the prevention, restriction or distortion of competition within the common market.

Individual company data will, under no circumstances, be made public during the meetings. The purpose of discussions during ECMA meetings is not to identify market-related information regarding a particular company, but to identify general trends and market developments for the benefit of all those concerned.

Scope and function

ECMA is active for the benefit of member companies in a variety of functions, and in a number of arenas.

- Collect, interpret and distribute statistical and other market information
ECMA serves the industry with a Statistical Yearbook, a quarterly newsletter, 'ECMA Carton News', and the ECMA website.
- Develop and promote industry standards

- **Terms and Conditions of Sale for European carton manufacturers**

The Terms and Conditions are designed to provide a level playing field for every carton maker involved in pan-European transactions. In order to give leadership and guidance in the best use of the e-commerce tool, ECMA has adopted the Good Trading Practices in Electronic Bidding Processes and Reverse Auctions (GTP), a set of recommendations designed to ensure fair trading practices and avoid misuse.

- **The ECMA Code of Folding Carton Design Styles**, accepted as a CEN reference standard in 1998, serves as a reference standard that creates clarity and understanding between buyers and sellers of cartons.

- **Braille Guidelines**

This code of practice for the standardised fabrication of Braille on folding cartons is designed to ensure the integrity and security of the Braille content. It contains established rules which form an easily-comprehensible guide to the technical implementation of Braille on folding cartons, and offers guidelines for the production sequence, from the creation of the artwork files to the delivery of the finished folding cartons.

Organisational structure

ECMA is run by the Executive Committee, which reports to the Delegates' Assembly, in which the national member associations, as well as the members of the Strategy Committee (and thus indirectly the carton manufacturers themselves) are represented.

The Strategy Committee reflects the industry's strategic interests, and serves the specific needs of pan-European carton suppliers.

Activity-specific committees support the work of the association. Suppliers to the industry – board mills, press manufacturers, ink manufacturers, software suppliers, etc – are 'Associated Members' of ECMA. A number of companies in other parts of the world are 'Overseas Members' of ECMA, enjoying its information exchange network and attendance at ECMA events.

ECMA's President, Vice-President and Executive Committee are elected for a three- year term in the Delegates' Assembly, with equal votes coming from the National Associations and the Strategy Committee.

ECMA Forums are platforms where like-minded ECMA members can discuss segment-specific issues of general interest, increase their understanding of market requirements, and identify best practices. Currently, four forums are active: the Pharma Forum, the Tobacco Forum, SME Forum and the Nation Association Directors Forum.

While the Secretariat in The Hague, run by the Secretary General is focused on the general management of the association, ECMA's Executive Director situated in the association's Brussels office focuses on industrial issues, pan-European industrial issues as well as public affairs.

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4. About the Project Team

About the ECMA Code Book Project Team

The project team was formed with representatives from the carton makers industry and its European industry association, ECMA.

ECMA commissioned L.A. Consulting in Belgium to lead the project to completely revise, and deliver in digital format, the ECMA Code. Leading companies in the industry supported this ambitious initiative by giving the services of their experts.

ESKO Artwork delivered support in the development of the design drawings and the creation of the 3D folding sequences, while FRANKIEZAFE took care of the interface design.

Participants in the ECMA codes working group were:

Mr. Anckaert Ludwig , L.A. Consulting
Mr. Bertels Jos, Van Genechten Packaging
Mr. Cardon Jan, ECMA
Mr. Hagenaars Rinus, Nampak Cartons
Mr. Held Waldemar, A&R Carton
Mr. Lejeune Jules H.M., ECMA Secretariat
Mr. Luten Arend Jan, Nampak Cartons
Mrs. Maartense Josien, Nampak Cartons
Mr. Macaré Marc, ECMA Secretariat
Mr. Sieber Helmut, Edelmann
Mr. Verlinden Geert, Van Genechten Packaging
Mr. Vermeulen Gert, Van Genechten Packaging

Consultancy, management and execution

L.A. Consulting BVBA is a privately-held company whose mission is to provide high-level services to the (corrugated) packaging industry, customers of this industry, and financial companies in terms of consultancy, management and execution, to create long-term vision, clear strategies, better competitiveness, better operational efficiency, and an improved bottom line.

L.A. Consulting acts as a third party and guarantees full objectivity, independence, impartiality, and confidentiality.

Many years of field experience and strategic partnerships with selected industry experts have enabled L.A. Consulting's expertise to cover the entire value chain.

L.A. Consulting is a preferred and unique partner for its customers. It offers in-depth technical knowledge of the packaging design, manufacturing and printing processes, standards and normalisation, regulatory and environmental aspects, manufacturing excellence standards and best practice, productivity benchmarks, and strategies for business turn-around, growth and development.

Ecological responsibility and sustainable development are illustrated in the solutions provided by L.A. Consulting, and sensitivity to these issues is high on the company's agenda.

Having operated in the international arena in more than 25 countries, it is clear that ethical values are a cornerstone of L.A. Consulting's vision and mission, as its customers testify. They span packaging producers, financial institutes and investment companies, packaging federations and associations, packaging users and consumers, professional institutes, and organisations related to the European Commission.

For more information about L.A. Consulting BVBA visit www.laconsulting.be.

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For the revision of the ECMA Code of Folding Carton Design Styles, the Artios CAD structural design software from ESKO Artwork was used to create both accurate 'flats' and interactive 3D-models with animated folding sequences.

About EskoArtwork

EskoArtwork is a global supplier and integrator of innovative solutions for packaging, commercial printing and professional publishing. Its products and services help customers raise productivity, reduce time-to-market, lower costs and expand business.

EskoArtwork is the worldwide market leader with pre-production and collaboration software for packaging buyers, designers and manufacturers. Its portfolio of software products integrates graphic, structural and process management functions for packaging, label, sign and display applications. The wide range of CDI computer-to-plate imagers offers the highest quality and productivity for digital flexo platemaking. Kongsberg flexible cutting & creasing and short-run converting tables complete the portfolio for the packaging, label, sign and display industries.

EskoArtwork also provides a range of workflow solutions for the commercial printing and publishing market, as well as the Enfocus suite of PDF tools for graphic designers and print production professionals.

In addition, EskoArtwork offers its customers a portfolio of application support and consultancy services.

EskoArtwork employs around 900 people worldwide. Its global sales and support organization covers Europe, the Americas, Asia Pacific and Japan, and is completed by a network of distribution partners in more than 40 countries.

EskoArtwork is headquartered in Gent, Belgium, and has R&D and manufacturing facilities in 5 European countries in the United States and in India. The consolidated full year revenue for 2007 amounted to EUR 170 million, with an EBITDA of EUR 30 million.

www.esko.com



François Zajega

François Zajéga is an experienced skilled front-end developer who combines highly- developed internet skills with a sense of appropriate design.

Before starting his own company in 2008, he was the managing partner in Arjuna Productions - an innovative multimedia and internet communications company. Here, he was responsible for major projects for FEFCO, the European Federation of Corrugated Board Manufacturers, which have given him a good understanding of, and familiarity with the needs of the broader packaging industry.

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