

---

# DESIGNING & SUBMITTING ARTWORK

---

## IMPORTANT INFORMATION ABOUT YOUR ARTWORK.

Incomplete, incorrect, or illegible art files will result in production delays, and possibly poor presentation of the final product. Have your artwork designed by a professional Graphic Designer. Unless you've arranged it with your Sales Representative beforehand, we require that all graphic arts are to be received in [ ~ | template. We have graphic art templates available for almost everything we manufacture.

## HOW TO SUBMIT ARTWORK.

After you have created your graphic art files, in [ ~ | template, name your files in a way that is easy for us to understand. The best is to combine your Catalog Number and the Product (i.e. ABC123jacket.] â¬ ABC123labelA.] â¬ ABC123labelB.] â¬). Once your files are gathered and named, place the final files into a folder and name the folder with your Catalog Number and the word "Art" (i.e. ABC123\_ART). Archive the single file (.zip or .sit) and •^} â/â

## APPROVING / REJECTING PROOFS.

Proofs will be saved in PDF format and emailed to you. You can use Adobe Acrobat Reader 7 or higher to check your files. Lower versions of Adobe Reader don't have the 'Overprint Preview' option, therefore you don't view the file on screen as it will be printed. Turn the 'Overprint Preview' checkbox on in the 'Preferences' window. Edit > Preferences > Page Display > Overprint Preview. Download the latest version of Adobe Acrobat Reader for free at <http://get.adobe.com/reader>.

Assuming that your proofs appear to be correct, a simple email response to your Sales Representative, like "All Proofs Approved", is all we need to move forward. If you don't approve your proofs in an email, your job may not get started. Make sure that you have received proofs for all parts of your order. If you are rejecting proofs, missing proofs, or are at all confused with the proofs that you have received, contact your Sales Representative immediately.

## ANSWERS TO THE MOST COMMONLY ASKED QUESTIONS.

- **ALL IMAGES MUST BE 300 D.P.I. RESOLUTION or higher.**
- **ALL IMAGES MUST BE CMYK and/or properly prepared PANTONE files. Do not submit Pantones unless you've ordered them.**
- **Use ONLY C I F TEMPLATES. Always keep Template on it's own layer. NEVER FLATTEN TEMPLATE to Artwork.**
- **TEMPLATES are the actual die-cut. ADD 3mm or .125" BLEED to all sides, outside the solid pink lines.**
- **TEXT and LOGOS should not be closer than 3mm or .125" to the die-cut lines.**
- **EPS and PDF file formats EXTREMELY PREFERRED. PSD files are prone to problems but are RELUCTANTLY ACCEPTED.**
- **QXD and INDD files are NOT ACCEPTED. NO GIF or JPEG files ever.**
- **ALL TEXT must be CONVERTED to OUTLINES (Illustrator, Quark, Indesign) or RASTERED / FLATTENED (Photoshop).**
- **ALL IMAGES must be EMBEDDED (Illustrator, Quark, Indesign) or RASTERED / FLATTENED (Photoshop).**
- **SAVE your files as SINGLE ARCHIVES (.zip or .sit) named only with your CATALOG NUMBER and the word ART (ex. ABC123\_ART.zip).**

## ASK QUESTIONS FIRST.

The last thing anyone wants to do is to have to redo their work. For this reason, it is important that you understand our specifications and templates, and prepare from the outset to properly design and submit your artwork. In the case that this document does not answer all of your questions, please consult your sales rep or our art department with any additional questions BEFORE you start designing. We're happy to teach you "how to fish", as the metaphor goes...

# COLOR SPACE

## Definition of Color Space:

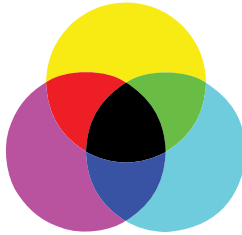
The color space is the format in which your digital artwork of a color image is saved; pertaining to its use and the types of colors that are intended to be displayed/printed.

## CMYK

Definition: To reproduce full-color photographic images, typical printing presses use 4 colors of ink. The four inks are placed on the paper in layers of dots that combine to create the illusion of many more colors. CMYK refers to the 4 ink colors used by the printing press.

C is Cyan (blue), M is Magenta (red), Y is Yellow, and K is Black.

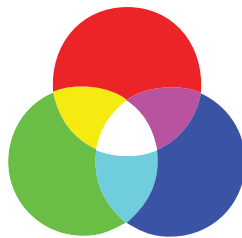
A mistake often made when submitting artwork for 4-color printing is not converting the images to the CMYK color space. This is needed so that the file can be separated into the four colors, so that a separate printing plate can be made for each of the colors.



## RGB

Definition: A common color mode, RGB stands for the colors of Red, Green, Blue. Add red, green, and blue light to create white light. Because you ADD the colors together to get White, we call these RGB colors the additive primaries. Colors on screen are displayed by mixing varying amounts of red, green, and blue light.

RGB is the most common color mode used when creating graphics, even though graphics to be commercially printed are eventually converted to CMYK mode, the colors used in printing inks.



## Spot Color

Definition: A spot color is specially mixed ink using in printing. Spot color inks come in a rainbow of colors, including some specialty inks such as metallic and fluorescent. Unlike CMYK or process color, which creates colors by laying down layers of just 4 specific inks, spot colors are pre-mixed and you use one ink for each color in the publication.

There are different brands of spot color inks. The dominant spot color printing system is PANTONE. The Pantone Matching System or PMS consists of over 1,000 colors of ink. The Pantone system allows users to mix percentages of base inks (such as CMYK) to create new colors, either physically (these are called spot colors) or on the printed page using screens to allow certain amounts of ink through and then overlaying the base colors. The Pantone system also allows for many 'special' colors to be specified such as metallics and fluorescents.

# RESOLUTION OF BITMAP IMAGES

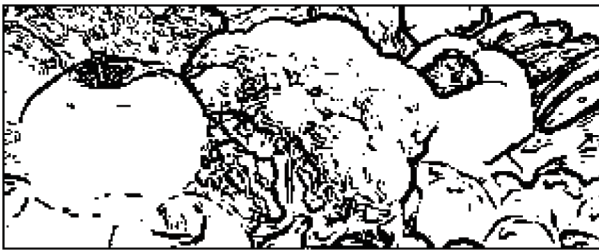
## Definition of Bitmap:

Bitmaps images are exactly what their name says they are: a collection of bits that form an image. The image consists of a matrix of individual dots (or pixels) that all have their own color (described using bits, the smallest possible units of information for a computer). The unit of measurement used to describe the resolution of images is DPI (dots per inch).

## Types of Bitmap Images:

Bitmap images can contain any number of colors but we distinguish between three main categories (see the list below with their description and recommended resolution for each of them).

1. **LINE-ART** images only contain two colors, usually black and white. Sometimes these images are referred to as bitmaps because a computer has to use only 1 bit (on=black, off=white) to define each pixel.  
Recommended resolution: min. 800 dpi.



2. **GRAYSCALE** images contain various shades of grey as well as pure black and white.  
Recommended resolution: min. 300 dpi.



3. **FULL COLOR** images. The color information can be described using a number of color spaces: RGB, CMYK or Lab for instance. Only CMYK color space is used for print.  
Recommended resolution: min. 300 dpi.



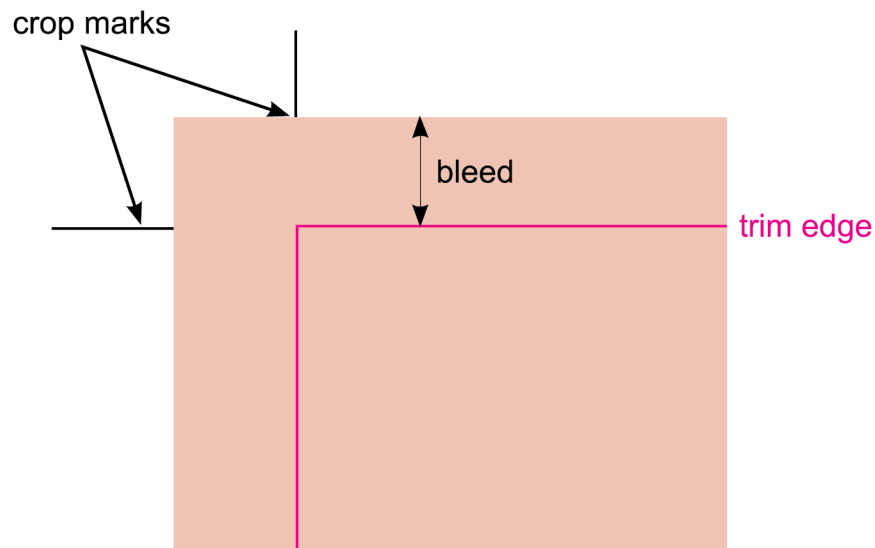
# BLEED

## Definition of Bleed:

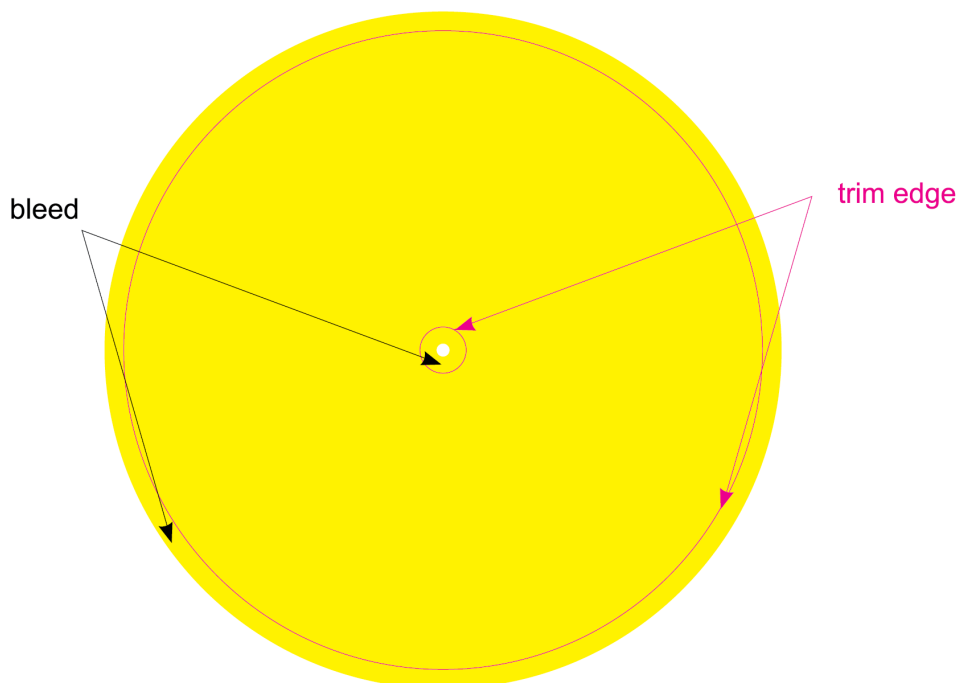
Bleed allows for deviations (movement during cutting) in printing. Bleed is created by extending your artwork past the solid pink cut-lines on our templates, so in case there is any movement during cutting, there is additional artwork visible, and not the unprinted paper. We require a minimum of 3mm bleed on most products.

## Bleed Allowance

To allow for any deviations in cutting the paper to the finished page size an element that bleeds off the page is typically extended about 1/8" (3 mm) beyond the trim lines (corner or crop marks). The image shows an example of the bleed allowance according to the crop marks.



Note that the bleed allowance has to be also around all possible cut-outs from the actual artwork. The image shows an example of the bleed allowance for LP label.



## CROP AND REGISTRATION MARKS

Adding crop marks and/or registration marks are not necessary if you are using our templates.

**Crop Marks** - markings (usually thin lines) that show where a page or image has to be trimmed. Don't forget to use the color 'registration' (most applications have such a color) if you create your own crop marks. Please make sure any crop marks you place in your layout are clear of the live printing area.

**Registration Marks** - a cross-hair target outside the page or image area that is used to help align film separations or to align the printed images on the press sheet. The mark should appear on all separations.

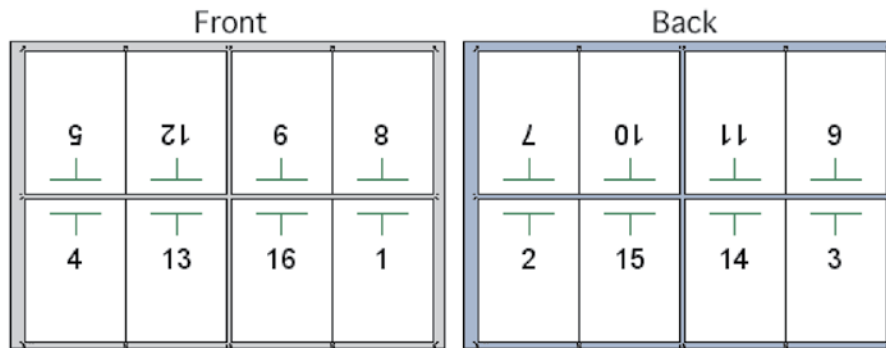
**Inserted Template** – our templates are created as vector graphics, with a special spot color (called “cutter”) and set to overprint. They are in 100% scale. You can import these templates to most graphic programs (QuarkXPress, InDesign, Illustrator, etc.) Do not change the pre-set attributes (overprint and color settings). Please note the inserted template must remain in vectors – do not rasterize/flatten it with the actual artwork!!! Such a template cannot be removed from the artwork and would get printed.



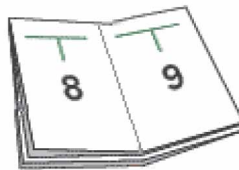
Adding crop marks and/or registration marks are not necessary if you are using our templates.

# IMPOSITION

Imposition is a term used in the printing industry. Print operators will print books using large sheets of paper, which will be folded later. This allows for faster printing, simplified binding and lower production costs. Imposition is the process of arranging pages correctly prior to printing so that they fold in the correct order. To someone unfamiliar with the imposition process, the pages may seem to be arranged randomly; but after printing, the paper is folded, bound and trimmed. If correctly imposed, the pages should all appear in the correct orientation and readable sequence.

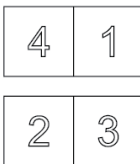


In the example above, a 16-page book is prepared for printing. There are eight pages on the front of the sheet, and the corresponding eight pages on the back. After printing, the paper will be folded in half vertically (page two falls on page three). Then it will be folded again horizontally (page four meets page five). A third fold completes this process. The example below shows the final result prior to binding and trimming.



The artwork for multiple-page booklets should be supplied as spreads and in printers order (see some examples below). The artwork can be also supplied as a single pages, and we can impose it in our DTP studio. In both cases, the pages in artwork should be **marked with correct page numbers**.

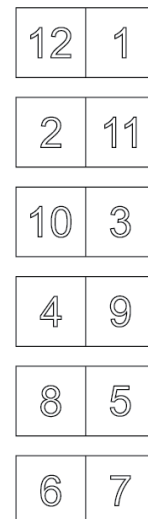
## 4-page booklet



## 8-page booklet



## 12-page booklet



## CONVERT FONT TO OUTLINE / CURVES

In general, unless there is a specific element of your artwork that would not work well being converted to a vector, or if you are only working in Photoshop, it is strongly advised to convert all your fonts to vector images (curves/outlines). We require that all vector fonts are converted to outlines or curves. No embedded or linked fonts.

### Vectors

Vector art is key for printing. Since the art is made from a series of mathematical points it will print very crisp no matter how you resize the art. For instance you can take the same vector logo and print it on a business card or blow it up to billboard size and keep the same crisp quality. In contrast a raster graphic would blur incredibly if it were blown up from a business card size to billboard size.

sample

## FONT RASTERIZATION

In some cases, you may want to or need to use rasterized fonts. Font rasterization is the process of converting text from a vector description (as found in scalable fonts such as TrueType fonts) to a raster or bitmap description. This often involves some anti-aliasing on screen text to make it smoother and easier to read. It may also involve “hinting”, that is, the use of information precomputed for a particular font size.

### Simple Rasterization without Antialiasing

The simplest form of rasterization is simple line-drawing with no antialiasing of any sort. This is the fastest method (that is, it requires the least computation to place on screen). This approach has the disadvantage that glyphs may lose their definition when rendered at small sizes. Therefore, many fonts contain “hints” which aid the system’s rasterizer in deciding where to render pixels for particularly troublesome areas in the glyphs, or sets of hand-tweaked bitmaps to be used at specific pixel sizes.

sample

### Rasterization with Antialiasing

A more complicated approach is to use standard anti-aliasing techniques from computer graphics. This can be thought of as determining, for each pixel, how much of that pixel is occupied by the letter, and drawing that pixel with that degree of opacity. For example, when drawing a black letter on a white background, if a pixel ideally should be half filled (perhaps by a diagonal line from corner to corner) it would be drawn in 50% gray. Simple application of this procedure can lead to somewhat blurry glyphs: for example, if the letter includes a vertical line which should be one pixel wide but falls exactly between two pixels, it will appear on screen a two-pixel-wide gray line. This blurriness is a tradeoff of clarity for accuracy. Some systems demonstrate the opposite sacrifice by using hinting to force lines to fall within integral pixel coordinates.

sample



# TRANSPARENCY

Transparency is an effect applied to an object causing it to appear transparent and letting objects underneath show through. A common example of transparency is drop shadow. Transparency may be applied to an object in a number of different ways.

Transparency is possible in a number of graphics file formats. The term transparency is used in various ways by different people, but at its simplest there is “full transparency” i.e. something that is completely invisible. Of course, only part of a graphic would be fully transparent, or there would be nothing to see. More complex is “partial transparency” or “translucency” where the effect is achieved that a graphic is partially transparent in the same way as colored glass. Since ultimately a printed page or computer or television screen can only be one color at a point, partial transparency is always simulated at some level by mixing colors. There are many different ways to mix colors, so in some cases transparency is ambiguous.



## The need to Flatten Transparent Objects

The challenge with transparency is reproducing transparent effects in printed output or in exported file formats that do not support live transparency. To reproduce these effects, transparent objects and that interact with them must be flattened.

At its simplest, the process of flattening converts all the overlapping and interacting elements in a group of transparent objects into a collection of opaque elements that result in the same appearance as the original.



## TOTAL INK COVERAGE

Depending on the paper stock, the type of printing process and the press itself, your printer can specify a certain 'total ink coverage' (TIC). This is the maximum amount of ink that any object on a page should contain. For example: if the TIC is 320 (as in our case), you can have objects on the page that contain 80 percent of cyan, magenta, yellow or black but a mixture of 100 percent cyan, 100 percent magenta, 70 percent yellow and 70 percent black has a TOC of 340 which is too much and will lead to smudging on the press.

## ATTAINABLE DENSITY

In comparison with offset printing, the silk-screen prints have a more visible relief. This is due to the greater quantity of ink applied on the screen in comparison with an offset press, where a thin application of ink and the flat printing technique allow for color densities below 5% and over 90%. The results of screen printing are influenced by the screen used, by the capillary film and by the quantity of ink applied.

When a plate is prepared, the print-on screening dots are detailed onto the screen of the stencil. To print a light hue, the ink must be pressured through very small holes in the stencil. Some of those points are covered by the fibres of the stencil, and no ink is applied. This is why at very light values a screening dot deficit can occur; there is a lower limit of about 15% to the achievable saturation values.

Conversely, when printing at a high density, the points in the stencil are so close one to another that they tend to combine into large surfaces or stains. This limits the maximum density to around 85%.

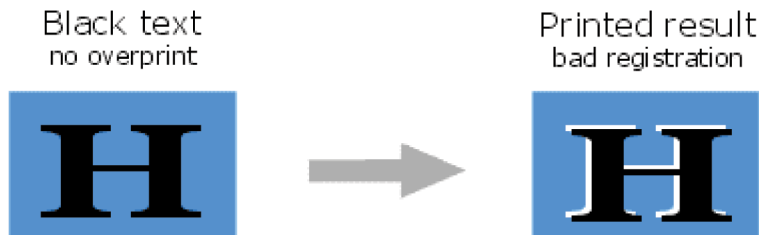
As a result, it is necessary to plan half-tone prints with levels of opacity not falling below 15% or above 85%. Moreover, abrupt density changes must be avoided (e.g. artist on stage under spotlight, etc.). If this is unavoidable in the selected artwork, corrections will have to be made during the preparation of the film at the DTP studio.

Furthermore, this is not enough sometimes. There are some cases, where artwork is in CMYK (in printable values), but will definitely look far better printed by spot color (see an example below). The brownish color used there is C-20%, M-30%, Y-50%, K-0%, which are printable values, but their combination causes printing problems, so we recommend to print such as areas in spot color, that will ensure the final color will have a solid and consistent look.

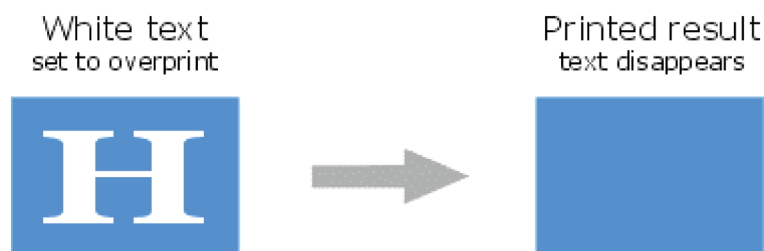


## GENERAL ADVICE

- **Black in Overprint:** In most cases, black text, lines and fills that overlap colored backgrounds should be set to overprint. If this is forgotten, it may cause white spaces when the job is printed out of register.



- **White set to Knock-Out:** QuarkXPress has the annoying habit of forgetting to switch off 'overprint' settings when black text is changed to another color. This can cause the text to disappear. Make sure white text is set to 'knock-out'.

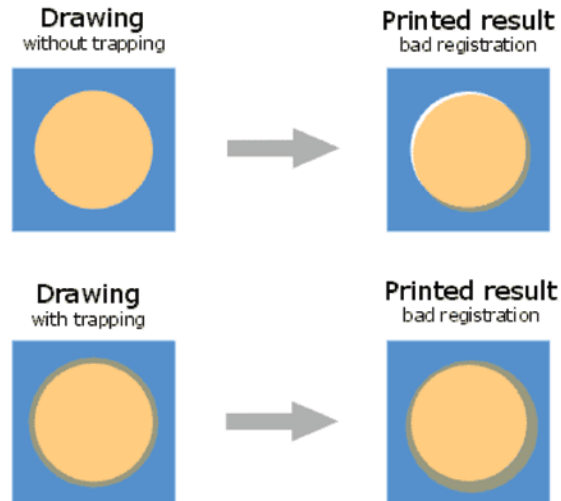


- **Rich Black:** For small black objects that are partly positioned on a light background and partly on a darker background, it is better to use a "rich black". This is 100 percent black with varying percentages of cyan, yellow, and magenta. This way the background does not shine through the black object. The top bar in the example below shows the problem.



- **Hairlines:** Some applications have a line thickness that is called "hairline". Never use this, always stick to a specific width, e.g. 0.25 points. The problem with hairlines is that they are imaged as the finest possible line on any given device. This may be fine on a 300 dpi laser printer but a 1 pixel wide line on a 2400 dpi image setter is hardly visible. Some RIPs allow the operator to set a minimum line width to avoid this trap. Just don't count on this workaround and avoid hairlines entirely. The smallest line width you can use depends on the press, paper, speed,... Consult your rep if necessary. As a general rule, never make a line smaller than 0.2 points.

- **Trapping:** Trapping is a technique that is used to minimize the effects of misregistration on the press. It relies on making light objects overlap darker objects slightly to avoid ugly bad lines showing up on the printed result. The example below illustrates the principle.



- **Barcode:** A machine-readable representation of information in a visual format on a surface. Originally barcodes stored data in the widths and spacing of printed parallel lines, but today they also come in patterns of dots, concentric circles, and hidden within images. Barcodes can be read by optical scanners called barcode readers or scanned from an image by special software. Barcodes are widely used to implement Auto ID Data Capture (AIDC) systems that improve the speed and accuracy of computer data entry. Barcodes inserted into the supplied artwork should be in 100% Black on a contrasting background color, and should be vectors or high resolution line-art. This will ensure the readability of barcode. Barcode should never be supplied as CMYK image.



- **Colorized Text:** Don't colorize small text (e.g. < 8 points) in 2 or more process colors. The slightest registration problem on the press makes such text illegible.
- **Colorized Thin Lines:** Don't colorize thin lines (e.g. < 1/2 point) in 2 or more process colors
- **Embossing / Hot Foil Stamping:** Artwork should be always created in curves/ vector graphic, and either in special spot color (called e.g. foil) as a part of the actual artwork, or in 100% black, but this should be in a separate file. We can also accept high-resolution line-art images, but the resolution should not be less than 1200 dpi. These specifications also apply for spot-varnish artwork.
- **Text Near the Trim Lines:** No text, logos, or similar graphics should be placed closer than 3 mm to the trim lines. This is due to deviations in cutting (a standard tolerance common with all printing).
- **Supplying Native File:** We use Adobe Creative Suite and only accept files in PDF or EPS. If you are using Photoshop, you can send us PSD files with template on one layer and all text and art flattened to another layer. If you must send us native InDesign or Illustrator files, and are unable to outline fonts or embed images, please make sure to send us images and fonts. We cannot accept source/native files for Quark XPess or any other layout programs.

- **Page Orientation** – supplied artwork should always match the artwork template. E.g. the artwork for LP sleeve should be always created accordingly to the template below (not to scale) and never in separated files for front and back (or even spine).

GD08-30H3-001

