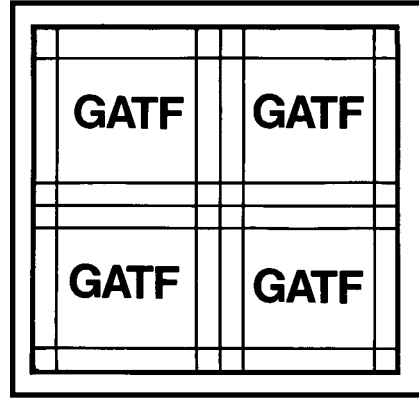


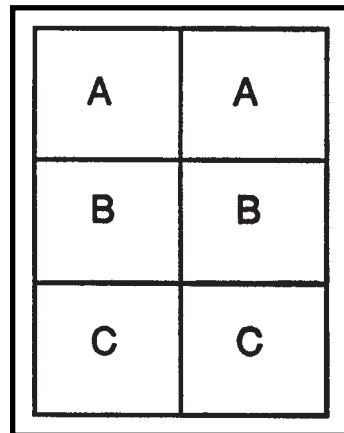
University of Houston College of Technology  
Graphic Communications Technology  
Image Assembly Layouts

PAGE LAYOUTS

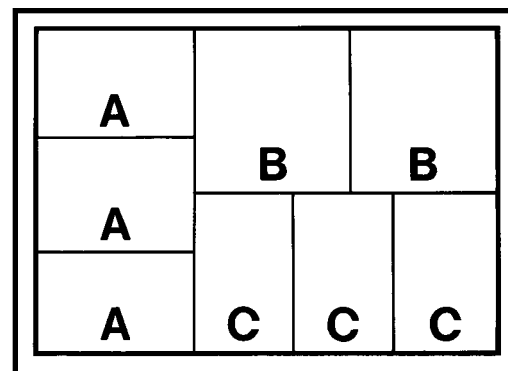
1. The illustration to the right depicts a single-sided job that is assembled "4-up." When completed, the paper will be cut into 4 identical sheets

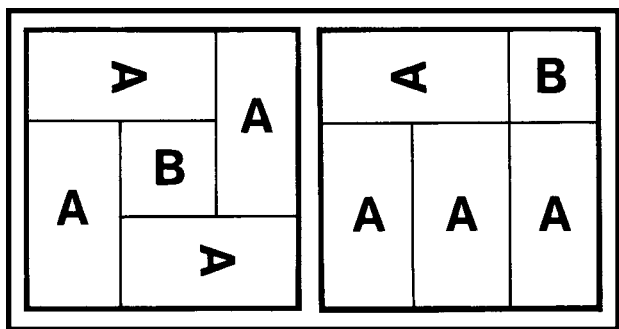


2. This is a "combination layout." The page consists of 6 images on a single sheet: "6-faces." There are 3 different jobs: "3-on." There are "2-up" of each job.

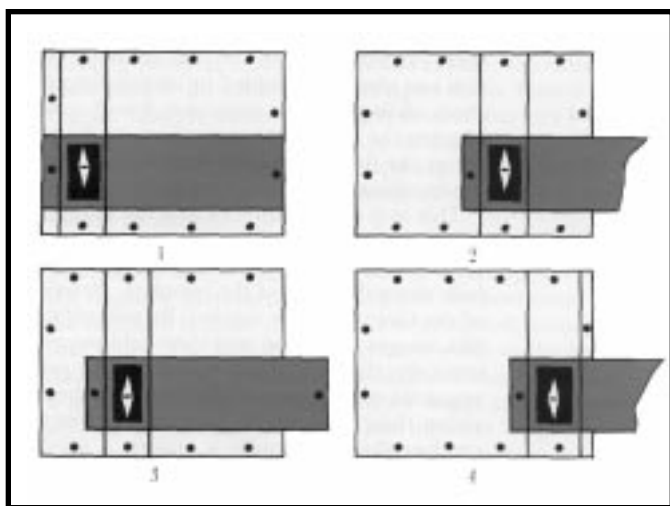


3. This is another combination layout. It has 8 "faces," 3 "on" and varying numbers "up." When making a layout of this kind, you must have a common "cut" line so the pages can be cut apart.

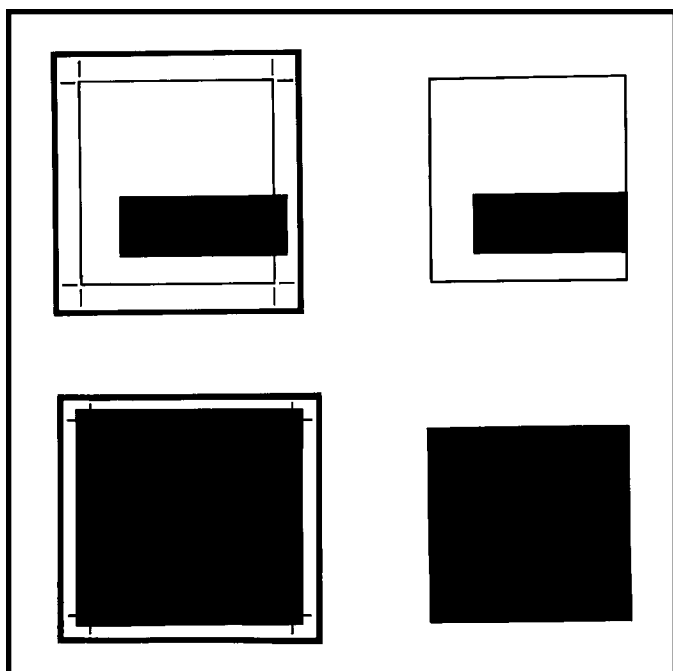




4. The combination layout to the left cannot be cut apart after printing and is, therefore, not usable. The layout to the right has two common cut lines and is usable.



5. Sometimes jobs that are printed more than 1 "up" are imposed using "step and repeat" techniques. Multiple negatives can also be assembled separately, or specially designed "step and repeat" plate exposing machines can be used.

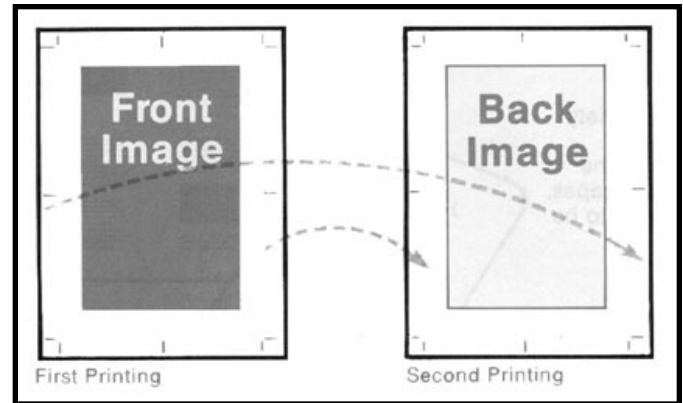


#### BLEEDS:

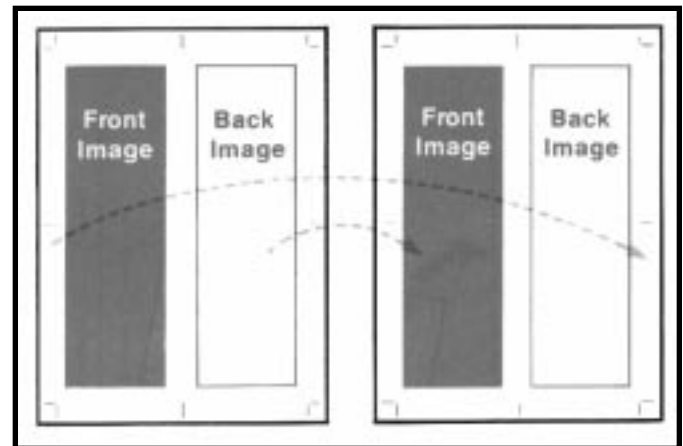
Jobs in which the image extends off the edge of the paper are called "bleeds." Bleeds are created by preparing an oversized image and then trimming-off the excess on trim lines.

## KINDS OF IMPOSITIONS

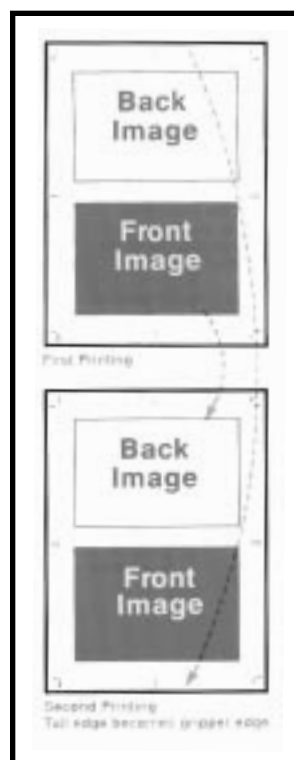
1. **Sheetwise:** this layout uses separate plates for the front image and the back image. The sheet is printed with the front image, turned over, the plate is changed, and the sheet printed again using the opposite side guide mechanism.

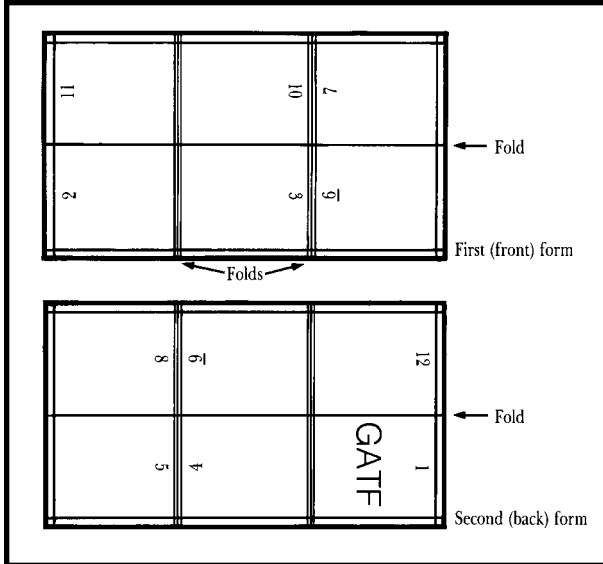


2. **Work & Turn:** this layout uses the same plate to print the front and back. It requires paper twice the size as the final product. The paper is printed, turned over and printed again using the same plate, same head and the opposite side guide mechanism.



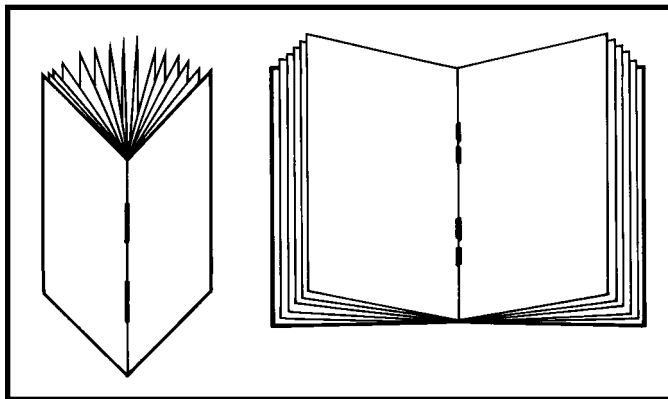
3. **Work and Tumble:** this layout uses the same plate to print the front and back. It requires paper twice the size as the final product. The paper is printed, tumbled and printed again using the same plate, same side-side mechanism and opposite side of the sheet for the head.



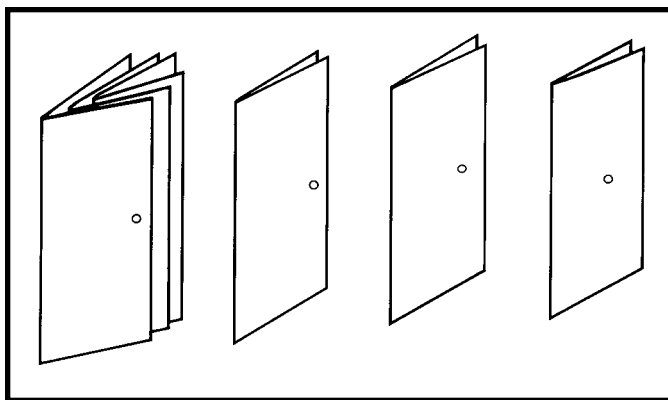


SIGNATURE IMPOSITIONS:

1. A signature is a sheet of paper printed with pages in the proper position so that, when folded, the pages “back-up” and follow one another. In addition to the pages, margins must be provided for trims, gripper areas and lips (see below).

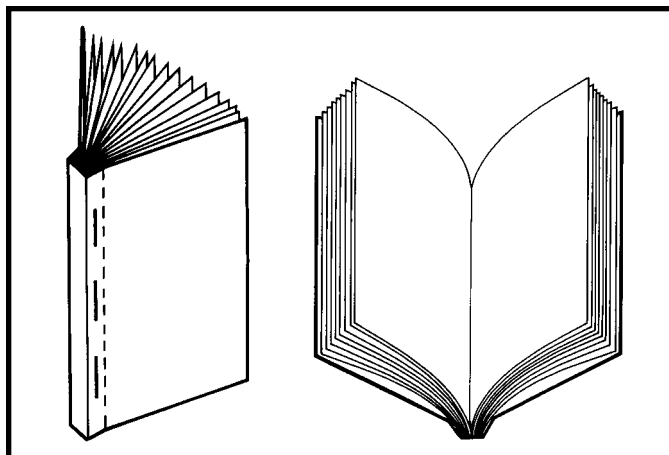


2. Saddle bound booklets: each signature is placed inside the previous one. Only the center two pages are actually one sheet of paper: it is the “printer’s spread.” Other facing pages are not on the same sheet of paper: they are “readers spreads.”

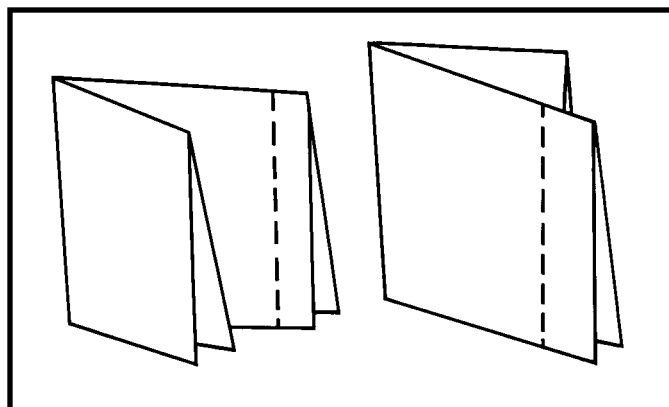


When signatures are placed within one another, “creep” or “shingling” occurs. This causes the trimmed inside pages to be actually smaller than the outside ones. Margins must be adjusted to compensate for this variation.

- Side bound book(let)s: signatures are placed on top of one another. Staples (wire), thread (case-bound), glue (perfect), or mechanical devices can bind the paper together.

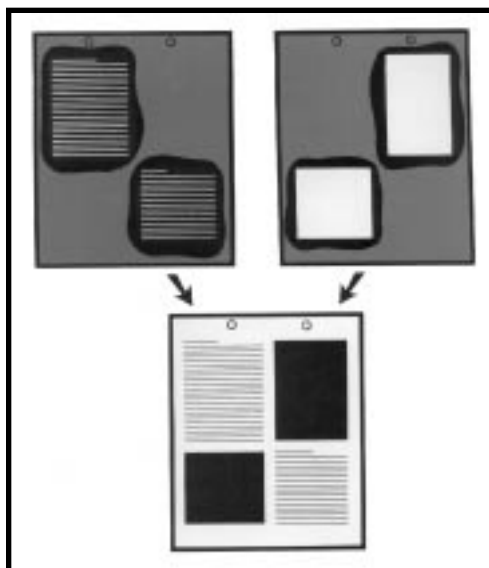


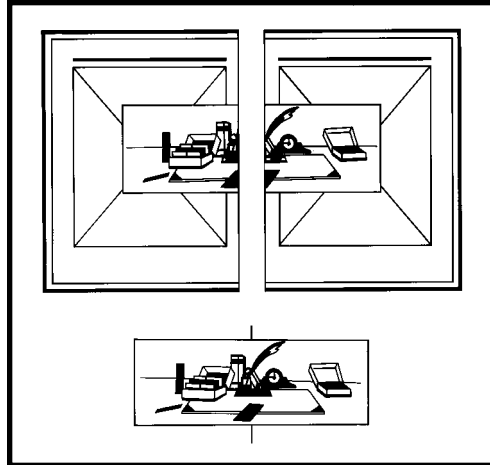
- Lips: mechanical collating equipment requires an additional margin so that the machines can separate and open the signatures and drop them onto the "assembly line." The diagram shows both high- and (left) low-folio (right) lips.



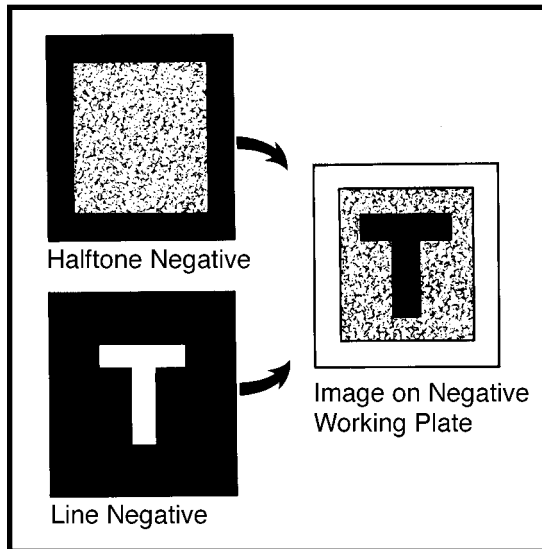
#### COMPLEMENTARY FLATS

- Complementary flats divide the films onto more than one flat. This is done to make assembly of complex images easier. After assembly, the separate flats are double-exposed onto the same proof or plate. One flat is exposed to the plate and then removed. The second flat is then exposed.

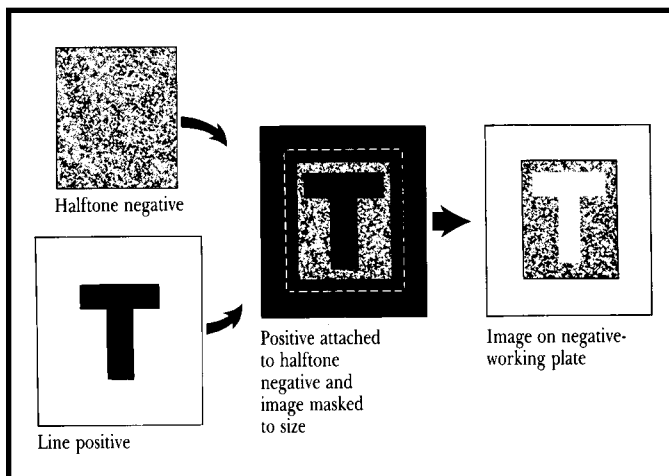




2. Crossovers (breakacross): When a halftone image is to print across a readers (but not printers) spread, the negative must be cut in half and positioned in two separate places (perhaps on two different flats.)



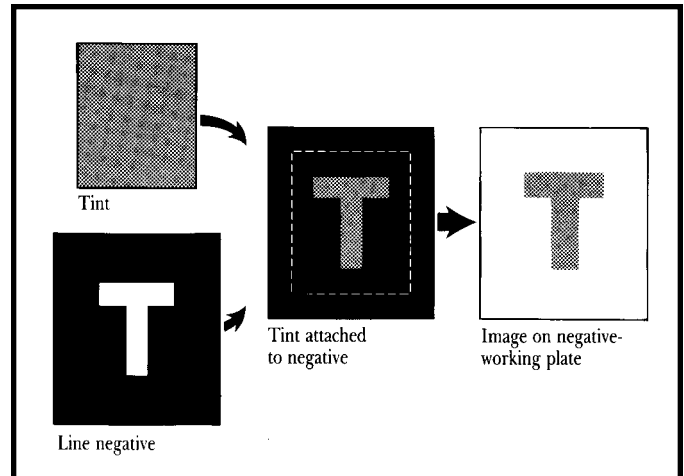
3. Surprinting: Complementary flats are used to place one image on top of another.



#### KNOCKOUTS & SCREENED TEXT

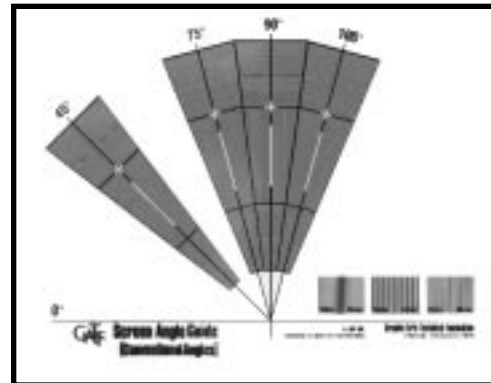
1. Knockouts: this results in an image being removed (reversed-out) from another.

2. Screened image: a screen tint is placed over the line negative to create the illusion of a tinted image area.



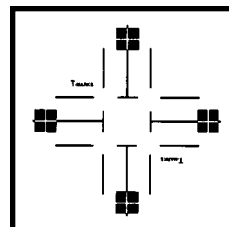
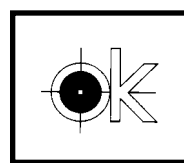
## SCREEN TINTS

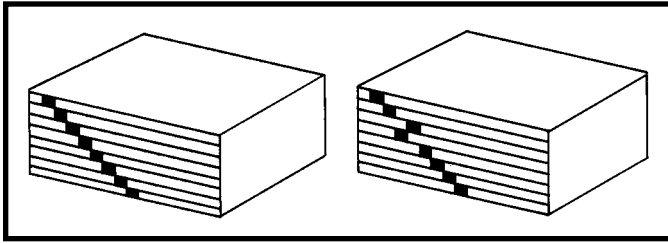
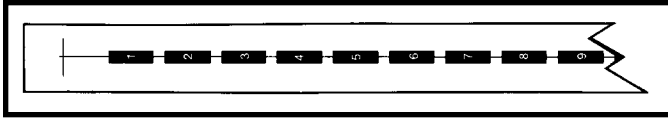
When applying screen tints, the correct tint (% , screen ruling, shape) must be applied at the correct angle. A GATF Screen Angle Guide is used to help position the tint at the correct angle.



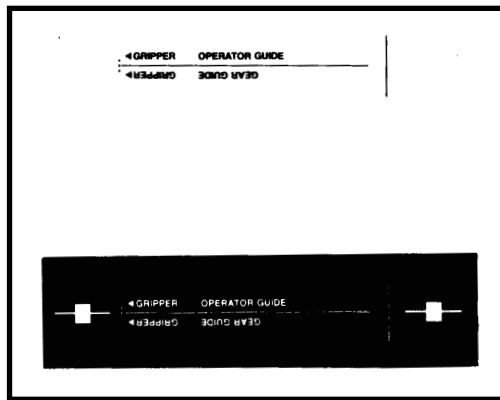
## IMAGE QUALITY CONTROL TOOLS

1. Register "OK" marks: Used on original copy so that multiple films can be aligned to one another (in the case of color work).
2. "T" marks: placed by the stripper on the trim lines to aid the bindery workers in properly folding and cutting finished booklets.





3. Collating Marks: these marks are stripped on the fold of finished signatures so that bindery personnel can visually check to see that all signatures are properly gathered. A collating mark is placed in a different place on each signature so that the final book will look like the example to the left. Improperly gathered signatures will look like the example to the right.



4. Side guide marks: the side guide mark, shown in both positive and negative form, is stripped on the edge of the sheet on the side-guide side to show the operator that the sheet is being properly registered. The longer line demonstrates proper side-guiding. The cross line indicates proper front-stop registration.