

## Federal Wage System Glossary of Printing Terms for the 4400 Job Family

The terms and definitions contained in this glossary are intended to facilitate the application of published job grading standards to occupations in the Printing Family. The glossary does not represent a comprehensive listing of technical terms and processes common to printing occupations. Additional information may be found in dictionaries, and technical publications such as agency guides, trade magazines, and technical manuals.

*Aluminum Plate.* A thin sheet of aluminum used in lithography for some press plates; image applied photographically; used for both surface-type and deep-etch offset plates.

*Aperture.* A small opening in a plate or sheet. In cameras, the aperture is usually variable in the form of an iris diaphragm and regulates the amount of light which passes through the lens. The working aperture is the diameter of that part of the lens actually used.

*Asphaltum.* A bituminous mixture used as an acid resist or protectant in photomechanics. In lithography, used to make printing image on press plate permanently ink-receptive.

*Autoscreen (Film).* A photographic film embodying the halftone screen; exposed to a continuous-tone image, produces a dot pattern automatically just as if a halftone screen had been used in the camera.

*Backing-Up.* Printing the other side, of a printed sheet.

*Back Pressure.* The squeeze pressure between the blanket (offset) cylinder and the impression cylinder; sometimes called "impression pressure."

*Base Color.* A first color used as a background on which other colors are printed.

*Bearers.* Rings of steel at the ends of the plate cylinder, the blanket cylinder, and sometimes the impression cylinder. Bearers provide a fixed base for determining the packing of plate and blanket.

*Bite.* Gripper bite, the amount of paper that extends beneath the press gripper, sometimes called gripper margin.

*Black-and-White.* Said of originals and reproductions displayed in monochrome (single-color), as distinguished from polychrome, or multicolor.

*Black Printer.* The black plate made for color reproductions to give proper emphasis to the neutral tones and detail.

*Blanket.* A fabric coated with natural or synthetic rubber which is clamped around the blanket cylinder and which transfers the ink from the press plate to the paper.

*Blanket Creep.* The slight forward movement of that part of the blanket surface that is in contact with the plate or paper.

*Bleed.* An extra amount of tone added to edges and contours of the sketch that is later to be die-cut into a conforming shape. Window displays and contour cards are usually cut to shape to make them look more realistic. This "bleed" permits the slight variations that occur when the reproduction is being die-cut.

*Blind Image.* In lithography, an image that has lost its ink-receptivity.

*Brightness.* Referring to the light being reflected by the copy to the lens of the process camera. Not to be confused with illumination which is the light falling on the copy on the copyboard of camera.

*Burning-In.* In lithography, trade slang for the photocomposing of plate image by light exposure on sensitized plate coating.

*Burn-Out.* To overexpose in such a way on a press plate that no tints come up. Edges can be sharpened up, while lettering can be obtained in toned areas by burning out or by double shooting.

*Caking.* Caking is the collecting of pigment upon plates, rollers, or ink table caused primarily by the inability of the vehicle to hold the pigment in suspension.

*Camera-Ready.* Strictly a pasteup or mechanical combining of all of the elements in proper form so that only one "shot" need be made for each color. In practice, a pasteup or mechanical may be considered "camera-ready" even though the halftones must be shot separately.

*Catching Up.* A lithographic term used to indicate that the nonimage areas of a press plate are beginning to take ink.

*Coating.* In photography and photomechanics, application of varnishes and other mixtures to plates and negatives; also application of light-sensitive solutions to plate surfaces, usually by means of plate whirler.

*Cold Type.* A trade term denoting the use of composition methods not involving hot metal type. Photographic composition on film is a form of cold type composition.

*Color Correction.* Any of various methods such as masking, dotetching, and re-etching, intended to promote improved color rendition. Can be done on screened or continuous-tone separation negatives, or by corrective work on the halftone printing plates.

*Color Filter.* A sheet of dyed glass, gelatin, plastic or dyed gelatin cemented between glass plates, used in photography to absorb certain colors and permit better rendition of others. A color filter permits certain wavelengths of light to pass through and absorbs others.

*Color Process Work.* Also called Process Color. A reproduction of color made by means of photographic separations. Also the method or the copy requiring such operation.

*Color Proofs -- Progressive.* A set of color proofs consists of color proofs of each plate, singly and in combination with other proofs as the job will be printed. For example, yellow by itself; magenta; yellow and magenta; cyan; yellow, magenta, and cyan; black by itself; and all four colors combined.

*Color Separation.* A photographic negative exposed through one of the tricolor filters and recording only one of the primary colors; in platemaking, manual separation of colors by handwork performed directly on the printing surface. The pre-separation of colors by the artist using separate overlays for each color executed in black or gray tones ready for the camera.

*Color-Separation Negative.* A photographic negative exposed through a color filter and recording only one of the primary colors in full-color work or one of the two colors in two-color work; in platemaking, manual separation of colors by handwork performed directly on the printing surface. The negative is a gray tonal record of the intensity and the color it is reproducing, being light where the color is strong in the copy, dark where the color is weak in the copy.

*Color Swatch.* A small, usually square solid print used with the sketch, negative, positive or printing plate to identify it and furnish a sample of the actual ink colors used. A guide in color separation and correction operations.

*Color Transparency.* A full-color photographic positive on a transparent support.

*Combination Plate.* In lithography, the joining of halftones and line negatives or positives in position to appear on the plate as combinations.

*Contact Print.* A photographic same-size copy made by exposure of a sensitized emulsion in contact with the transparency, a negative, or a positive; the exposing light passing through the master image.

*Contacts.* (1) Same-size negatives made by exposing light-sensitive material in contact with a positive and subsequently developing. (2) Same-size positives made by exposing light-sensitive material in contact with a negative and subsequently developing.

*Contact Screen.* A photographically made halftone screen having a dot structure of graded density and usually used in vacuum contact with the film or plate.

*Continuous Tone.* Said of those images (wash drawings, oil paintings, photographic negatives and positives) in which the detail and tone values of the subject are reproduced by a varying deposit (density) of developed silver in the picture. Photogelatin or collotype reproductions duplicate continuous-tone copy without use of a screen and are said to be continuous-tone reproductions. In lithographic color correction, continuous-tone color separation negatives are stained locally by gray dyes to add density, or treated by chemicals to lessen density.

*Contrast.* Tonal comparison of highlights and shadows in an original or reproduction. The tonal difference in detail, i.e., contrast copy refers to accentuated detail in both light and dark areas.

*Copy.* The manuscript or text furnished to printers. In photographic platemaking there are two kinds of copy—line and tone, photographed without and with the halftone screen, respectively. Line copy is that in which the design or image of the original is composed of lines or dots of solid color. Tone copy is that in which tones or shades of solid color appear.

*Crop.* To cut off an edge or trim.

*Cross line Screen.* A standard halftone (glass) screen with the opaque lines crossing each other at right angles, thus forming transparent squares, or "screen apertures."

*Crossmarks.* Register marks to make possible the accurate positioning of images in composing, double-printing and multicolor printing, and in superimposing overlays onto a base or to each other. Commercially available in a variety of forms, for pasting on copy.

*Cylinder Guide Marks.* Marks on the offset press plate to match corresponding marks on the plate cylinder of the press, so that each plate will be positioned the same on the press.

*Dampeners.* Cloth-covered rollers that distribute the dampening solution received from the ductor roller of the dampening unit to the lithographic press plate.

*Dampening Solution.* A solution of water, gum arabic, and various types of etches used for wetting the lithographic press plate (grease-water principle of lithography). Also termed fountain solution or dampening etch.

*Densitometer.* An electric instrument designed to accurately measure optical density, or tone values, and used in place of the human eye for such purpose. Two general types: visual and photoelectric; transmission densitometers measure the full density range of negatives, and reflection densitometers measure the reflection range of opaque copy. If a photocell "search unit" is provided the instrument can be used as an illumination meter on the ground glass of camera.

*Density.* A photographic term often confused with "opacity" but correctly applied to the quantity of metallic silver (or dyes) per unit area in negatives and positives.

*Desensitize.* (1) In lithographic platemaking, to make the non-image areas of a lithographic plate nonreceptive to ink through chemical treatment of metal. (2) In photography, a desensitizer is an agent for decreasing the color sensitivity of a photographic emulsion to facilitate development under comparatively bright light. The action is applied after exposure.

*Developer, Development.* The chemical agent and the process employed to render photographic images visible after exposure to light.

*Dimensional Stability.* Ability to maintain size; resistance of paper or film to dimensional change with change in moisture content.

*Direct Halftone.* A halftone negative made by direct exposure of an object through a halftone screen.

*Dodge.* To shield light from a portion of a negative or a flat during part of the exposure time.

*Dot-Etching.* Tonal correction of halftone positives or negatives in photolithography by judicious and controlled reduction of dot size through the action of chemical reducers. Tray etching for all-over reduction of dots; local etching done by an artist with a small soft brush.

*Double Exposure.* In photography and photomechanics, a supplementary exposure given the main image to obtain special effects.

*Double Print, Double Printing.* The effect and operation of photoprinting different line and halftone negatives in succession and register on the same sensitized surface.

*Double-Sheet Detector.* A device for tripping the press when more than one sheet attempts to enter the press at one time.

*Drier.* A substance added to inks to hasten their drying.

*Dropout Halftone.* A halftone reproduction in which highlight effects have been introduced either by treatment of the halftone negative, or by etching the printing plate to eliminate dot formation in the pure highlights. In lithography the dropout is obtained photographically by use of contact halftone screen or manipulation of the camera exposure through cross-line halftone screen.

*Dummy.* (1) The preliminary drawing or layouts showing the position of illustrations and text as they are to appear in the final reproduction. (2) A set of blank pages made up in advance to show the size, shape, form, and general style and plan of a contemplated piece of printing, such as a book, booklet, etc.

*Duotone.* Term for a two-color halftone reproduction from a monochrome original and requiring two halftone negatives for opposite ends of gray scale at proper screen angles. One plate usually is printed in dark ink, the other in a lighter one.

*Fake-Color Process.* Production of halftone color plates from monochrome originals, whereby the color effects are introduced by retouching of photoprints, and by skillful re-etching and finishing of the halftone plates. For lithographic reproduction, the artist preseparates colors by mechanical overlays, working in gray tones, to provide tone copy for the camera.

*Fanning.* Expansion of an offset press sheet across the back edge as it goes through press; caused by sheet not being flat due to edges drying and contracting.

*Filter Factor.* A number indicating, by multiplication, the increased exposure required when a particular color filter is used during the camera exposure.

*Fixing.* The application of a chemical solution which removes the unexposed silver salts in an emulsion without affecting the metallic silver which has been deposited by the developer. Fixing renders the photographic image permanent.

*Flash Exposure.* The supplementary exposure given in halftone photography to strengthen the dots in the shadows of negatives. This exposure is made with a small lens stop to a sheet of white paper hung over the original, or to the rays from a flash lamp.

*Flat.* In lithography, the assembly of photographic negatives or positives on goldenrod paper, glass or vinyl acetate for exposure in vacuum frame in contact with sensitized metal press plate. Equivalent to a typographic form and containing text as well as art.

*Focal Length.* A photographic term for the distance between the optical center of a lens and the point at which an object image is in sharp or critical focus. Focal length is usually engraved on the front of the lens barrel by the maker.

*Focal Plane.* The surface (plane) on which camera images transmitted by a lens are brought to sharpest focus, the surface represented by the light-sensitive film or plate.

*Focus.* In photography, the point at which rays of light passing through a lens, converge or seem to converge to form a sharp image of the original.

*Fog.* A photographic defect in which the image is either locally or entirely veiled by a deposit of silver, the defect due either to the action of stray light or to improperly compounded chemical solutions.

*Folio.* Page number.

*Forwarding Mechanism.* Conveyor arrangement to carry the sheet from the feeder to the front guide.

*Fountain Stops.* Movable riders/rollers or strips of material sometimes placed to rest on the fountain roller of an offset press dampening system to cut down on the amount of water supplied to the corresponding area of the press plate.

*"F" Stops.* Fixed sizes at which the aperture of the lens can be set, the values of which are determined by the ratio of the aperture to the focal length of the lens.

*Gang Negative, Gang Plate.* In photomechanics, a negative bearing a number of properly positioned images, and a printing plate made therefrom. A Gang Negative is also known as a Multiple Negative; multiple negatives are the method of handling many small images as one unit in the step-and-repeat machine used in lithographic platemaking for making multiple images.

*Goldenrod Flat.* The method of assembling and positioning lithographic negatives (or positives) for exposure in contact with light-sensitized press plate. The goldenrod paper used is translucent enough to see penciled layout on underside, or master layout on separate white paper beneath, so film negatives can be attached in proper position with red scotch tape. The goldenrod paper beneath image areas is cut away before flat is reversed to place emulsion-side of negatives to emulsion on metal plate.

*Gray Scale.* A strip of standard gray tones, ranging from white to black, placed at the side of original copy during photography to measure tonal range obtained, and in the case of color-separation negatives for determining color balance or uniformity of the separation negatives.

*Gripper Margin.* An unprinted area between the edge of the sheet and lead edge of the printing area, allotted for the press grippers to hold the sheet.

*Guide Marks.* A method of using crossline marks on the offset press plate to indicate trim centering of sheet, centering of plate, etc., as well as press register in multicolor work.

*Halation.* A photographic term for spreading of light action beyond proper boundaries in negatives. A blurred effect, resembling a halo, usually occurring around bright objects; caused by reflection of rays of light from the back of the negative material.

*Halftone.* Any photomechanical printing surface and impression therefrom in which detail and tone values are represented by a series of evenly spaced dots of varying size and shape, the dot areas varying in direct proportion to the intensity of the tones they represent.

*Halftone Color Printing.* The planographic process of printing depends on the deposit of a greasy ink in the form of dots or lines for its tonal interpretation of the sketch. The eye blends these fine lines or dots with the spaces between them and sees tones that vary with the proportion of dots to spaces between. As individual dots are not easily visible, they appear as continuous tones of color. To achieve the varied color results, three or more colors are used.

*Halftone Tint.* A solid area of a plate is transformed into a gray tone of any desired density by stripping in a piece of film with uniform halftone density, i.e., 25%-50%, etc.; either negative or positive stock sheets of halftone material are used; avoids necessity for preparing art where uniform tone instead of solid background is wanted.

*Halo.* The circle of aura of lesser density around the core of the halftone dot.

*Imposition.* Arranging and fastening negatives or positives to a supporting flat for use in offset lithography platemaking. Multiple imposition the exposure of the same flat in two or more positions on the press plate.

*Inking Mechanism.* On a printing press, the ink fountain and all the parts used to meter, distribute, cheat, and supply the ink to the printing member.

*Inserting.* The fitting of one negative into another or the assembling of a number into a definite relationship to each other by the accurate cutting and fitting of the photographic films.

*Integrating Light Meter.* An instrument which measures intensity of light exposure as well as length of exposure according to predetermined setting.

*Layout.* Preliminary sketch or arrangement showing the size, position and colors of illustrations and text matter in advertisements and other printed matter, and also including special instructions to platemakers and printers. The lithographic stripper's layout drawn in pencil on goldenrod paper flat for positioning photographic negatives (or positives) of units or pages. Made from original layout of dummy.

*Line Copy.* Any copy suitable for reproduction without using a screen; copy composed of lines or dots as distinguish from copy composed of continuous tones. Lines or dots may be small and close together so as to simulate tones, but are still regarded as line copy if they can be faithfully reproduced without a screen.

*Lines To The Inch.* Crossline halftone screens are made up of opaque lines ruled at right angles to each other. Some screens have more or less lines to the inch than others and are accordingly classified. The 120- and 133-line screens are the ones most commonly used. In large size work the screen ruling may be as coarse as 40 lines to the inch; in very fine detail work screens with 250 lines or more to the inch are successfully used.

*Magenta Contact Screen.* A contact film screen composed of magenta dyed dots of variable density used for making halftone negatives in the camera. Used mostly for lithographic negatives.

*Makeready.* On an offset press, the adjusting of feeder, grippers, side guide, pressure between plate and offset blanket cylinder, putting plate on press and ink in fountain to be ready to run the press.

*Masking (Photographic).* Application of a mask to certain areas of originals to promote better halftone reproduction; use of corrective photographic images on separation negatives for improved color rendition.

*Mechanical Color Separations.* The pre-separation of colors for line color or fake-color art by the artist, executing the art for each color in black or gray tones, usually separate overlays of "key" copy, ready for the camera. Either line or tone separations.

*Moire.* Undesirable patterns occurring when reproductions are made from halftone proofs or steel engravings, caused by conflict between the ruling of the halftone screen and the dots or lines of the original; a similar pattern occurring in multicolor halftone reproductions and usually due either to incorrect screen angles or misregister of the color impressions during printing.

*Offset.* Wet ink transferred from one sheet to another in a load of freshly printed sheets.

*Offset Lithography.* Lithography produced on an offset lithographic press, the modern commercial printing method. A right-reading plate is used, and an intermediate rubber covered offset cylinder transfers the image from the plate cylinder to the paper, metal or other material.

*Opaquing.* Local application of opaque to photographic negatives or positives; blocking-out.

*Overpacking.* Packing the plate or blanket to a level that is excessively above the level of the cylinder bearer.

*Overprinting.* In lithographic platemaking with surface plates, the exposure of a second negative on an area of the plate previously exposed to a different negative; a method of combining line and halftone image on the plate.

*Packing.* In lithography, the paper used to underlay a blanket, plate or proof to bring the surface to the desired height, the method of adjusting squeeze pressure. The act of inserting the packing material under the blanket or plate.

*Pasteup.* The preparation of copy, putting each component element in proper position before photographing. The usual method of assembling copy elements including text for reproduction by offset lithography.

*Perfecting Press.* A printing press that prints both sides of the sheet in a single press pass.

*Photocomposer.* A machine for making multiple image plates or negatives, by step-and-repeat action, from one or more negatives or positives. The machine is equipped for vertical and horizontal makeup in accurate spacing and register. Some types of machines are for making multiple negatives only, which in turn are used as the unit positioned in the stead-repeat platemaking composing machine.

*Photolithography.* That branch of lithographic printing in which photography is employed for reproduction of the image on the final printing surface. The original printing surface, lithographic stone, has been almost completely displaced by thin and flexible sheets of metal (zinc, aluminum, stainless steel, bimetallic plates, polymetallic plates), bearing a mechanically abraded (grained) surface for retention of moisture on the plate during offset printing therefrom.

*Presensitized Plate.* Precoated plastic or metal plate which can be printed photographically from line or halftone negatives.

*Press Proofs.* Actual press sheets to show image, tone values and colors as well as imposition of form or press plate.

*Printing Pressure.* The force at the interface of the printing member and the paper which is required to transfer the ink from the printing member to the paper.

*Process Colors.* Yellow (lemon), magenta (cold red), cyan (blue-green), are the three process colors. They are so selected because when combined they produce black and when used in

various strengths and combinations they make it possible to reproduce thousands of different colors with a minimum of photography, platemaking and presswork.

*Process Lens.* A highly corrected photographic lens for line, halftone and color photography. A camera lens used for photographing flat copy; it is used in lithography for line and halftone photography, continuous-tone and color separation for line; usually not sufficiently color corrected for process-color separation.

*Progressive Proofs.* Proofs made from the separate plates used in color process work, showing the sequence of the printing and the result after each additional color has been applied. They are furnished to the printer by the engraver.

*Proofing.* Frequently used instead of "proofing," denoting the operation of pulling proofs of plates for proofreading, revising, trial, approval of illustrations, and other purposes preliminary to production printing. In lithography print proofs (photoprints) are used to check layout and imposition when plates are made from flats and colors.

*Proof Press.* A printing machine used for making proofs, usually has most of the elements of a production machine but not for automatic sustained production. An offset proof press has provision for transferring printed image to offset blanket and from that to the paper. Hand and power models, single and multicolor, as well as special presses for transparent proofs are available.

*Reducers.* Varnishes, solvents, or oily or greasy compounds, employed to bring ink or varnish to a softer consistency for use on the press.

*Refraction.* Deviation of a luminous ray of light in passing obliquely from one medium to another, or in traversing a medium of uneven density.

*Register.* Exact correspondence in the position of pages or other printed matter on both sides of a sheet or in its relation to other matter already ruled or printed on the same side of the sheet. In photoreproduction and color printing, the correct relative position of two or more colors so that no color is out of its proper position.

*Register Marks.* Small crosses, guides or patterns placed on originals before reproduction to facilitate registration of plates and printing therefrom.

*Reversing Prism.* An optical prism used in combination with a camera lens to "reverse" the image from right to left, or to make it read "right" when it would read "wrong" with the lens alone. A reversing prism requires that the copyboard be placed at right angles to the plate or film in the camera.

*Saddle-Stitched.* Stitched or stapled down the middle of a folded sheet(s).

*Safelight.* In photography, the special darkroom lamp emitting illumination wherewith sensitized materials can be handled without danger of fogging by action of light.

*Scale.* (1) A rule of graduated dimensions; a device on process cameras for mechanical focusing of images; (2) The ratio of enlargement or reduction of an original to the final reproduction; (3) A table of percentages.

*Scanner.* An electronic device for scanning colored copy and separating the colors for photographic separations to be used in the reproduction processes, or in other types of scanners; an electronic device for integrating color separations made in the camera and color correcting them by integrating a color separation with the particular ink to be used for each color.

*Screen Angles.* In halftone color reproduction, any of the particular angles at which a halftone screen or the original itself is placed for each of the negatives comprising the set of color plates, in order to avoid formation of displeasing dot patterns in the completed color reproduction.

*Screen Distance.* In halftone photography, the separation or space between the surface of a glass halftone screen of specific ruling and the photographic surface during the halftone camera exposure. This distance permits the rays of light passing through the screen to diffuse before striking the film or plate. Extent of diffusion of rays is in proportion to their intensity which in turn is determined by the reflection of light from the original copy. The variation in diffusion is what produces dots of different sizes on the film or plate.

*Scriber.* A small handtool used for drawing lines on the emulsion of an exposed photographic negative, the tool scraping off the black emulsion; the operation is termed "engraving" negatives and is used for fine ruled-form work.

*Scumming.* A lithographic term referring to the press plate picking up ink in the nonprinting areas for a variety of reasons; basically due to spots or areas not remaining desensitized; filling in of halftone dots, spreading of image, streaks are often caused by scumming.

*Sensitivity Guide.* A narrow, calibrated continuous-tone gray scale with each tone scale numbered. In the platemaking operation the gray scale is exposed on the sensitized press plate along with the rest of the work. The number of steps in the scale showing as solids on the developed plate determine the sensitivity of the plate coating and measure the tone values that were reproduced on the plate.

*Separation.* In color photography, the isolation or division of the colors of an original into their primary hues, each record or negative used for the production of a color plate. The act of manually separating or introducing colors in printing plates. In lithography, direct separations are made with the use of the halftone screen; indirect separations involve continuous-tone separation negatives and screened positives made from these.

*Shading Sheets.* Art material, usually patterns or tones on acetate sheets which can be positioned on line artwork in selected areas to avoid tedious hand detail; special drawing paper containing invisible patterns which can be developed to black by chemical on artist's brush. Not to be

confused with halftone tints which are only indicated on the art, and inserted by stripping negative.

*Sharpness.* Photographic term for perfectly defined detail in an original, negative, and reproduction.

*Sheetwise.* The use of a form or offset plate which prints just one side of the sheet when both sides are to be printed; a method of press production.

*Signature.* A section of a book, usually obtained by the folding of a single sheet into 8, 12, 16 or more pages.

*Smearing.* A condition in which the impression is slurred and unclear because too much ink was run or sheets were handled or rubbed before ink was dry.

*Stepover.* In multiple imposition on a lithographic press plate, the procedure of repeating the exposure of a flat by stepping it along the gripper edge; side-by-side exposure.

*Step-Up.* In multiple imposition on a lithographic press plate, the procedure of repeating the exposure of a flat by stepping it back from the gripper edge of plate; up-and-down positioning.

*Still Development.* The development of photographic emulsion in tray without agitation or rocking of tray.

*Stop.* Photographic term of any type of lens aperture or diaphragm. For example, Highlight-, Middletone-, Detail-, Shadow-, Iris-, Waterhouse-Stops.

*Stripfilm.* A process film for line and halftone photography consisting of a gelatin-silver emulsion coated on a temporary support, which permits stripping or lifting of the negative image from the base support after fixation and washing.

*Stripping.* The act of positioning or inserting copy elements in negative or positive film to a unit negative; the positioning of photographic negatives or positives on a lithographic flat for form imposition.

*Tinting.* An allover color tint on the press sheet caused by the ink pigment dissolving in the dampening solution of a lithographic press. Not to be confused with scumming which is more local and due to other reasons.

*Tints.* Various tones (strengths) of a solid color. For rough work, sometimes handled on the copy by pasting down a piece of stock shading sheet and handled as line copy; or patented drawing board is used by artist and tint areas are developed with chemical. Photographic (halftone) tints are stock developed film (negative and positive) in various strengths of tone (25 percent, 50 percent, etc.) and usually 133-line screen prepared by the camera department and inserted by stripper as indicated on copy.

*Tone Density.* The optical density of a tone area. With halftones, the overall density which takes into account both the dots within the tone area and the spaces between them.

*Trapping.* The ability of an already printed ink film to accept a succeeding or overprinted ink film.

*Tusching.* The operation of adding work to the image on a lithographic press plate, correcting lines and lettering and adding solids by means of a liquid greasy substance known as Tusche.

*Up.* In press work, two up, four up, etc., refers to imposition of pages or material to be printed on a larger size sheet to take advantage of full press capacity.

*Vignette.* An original piece of copy, halftone printing plate or impression in which the background or a portion of the illustration gradually shades off until the lightest tones or extreme edges appear to merge with the paper on which they are printed. A halftone illustration showing a vignetted finish or edge.

*Walk-Off.* Failure of part of a lithographic image to adhere to the metal plate; parts of image disappear during press run.

*Web Press.* A press which prints from rolls (i.e., webs) of paper.

*Work-and-Tumble-Imposition.* To print one side of a sheet of paper, then turn the sheet over from gripper to back using the same side guide and plate to print the second side.

*Work-and-Turn Imposition.* Work-and-turn is a printing imposition, where the form contains the material to be printed on both sides of the sheet. The entire form first prints on one side of the sheet for half the number of impressions desired, then the sheet is turned over sideways from left to right and the run is completed on the reverse side.