TECHNICAL REPORT

ISO/TR 15847

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Graphic technology — Graphical symbols for printing press systems and finishing systems, including related auxiliary equipment

Technologie graphique — Symboles graphiques pour systèmes de presses à imprimer et systèmes de finition, y compris les équipements auxiliaires associés

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TR 15847 was prepared by Technical Committee ISO/TC 130, *Graphic technology.*

Introduction

This Technical Report has been developed on the basis of existing ISO and IEC symbols and relevant national standards. It provides recommended graphical symbols for printing press systems and finishing systems. It is recognized that national standards or laws may dictate national requirements, and in cases where it is known that there is a national requirement that differs from the information provided in this Technical Report, that information is noted.

For symbols reproduced from ISO 7000 and IEC 60417, their source is indicated in square brackets following the description/use, although they may not be presented in accordance with their precise shapes and application rules. In cases where it was considered necessary to modify a symbol and/or description in order to make the symbol more relevant to the equipment used for printing press systems and finishing systems and to the conventions outlined in this Technical Report, this is indicated following the source indication. All new and modified graphical symbols have been submitted to ISO/TC 145/SC 3 for review and consideration for approval as ISO 7000 graphical symbols. Furthermore, the graphical symbols represented in this Technical Report have been reproduced for user's convenience and may not be presented in accordance with ISO 7000 and IEC 60417.

IEC 80416-1 and IEC 80416-2 provide requirements regarding the precise shapes and application rules for graphical symbols.

Graphic technology — Graphical symbols for printing press systems and finishing systems, including related auxiliary equipment

1 Scope

This Technical Report defines graphical symbols for use on or near equipment in printing systems and finishing systems, including related auxiliary equipment. These graphical symbols are intended to identify the use of, or to indicate the function and/or state (condition/mode) of, the controls used in the operation of the equipment.

These graphical symbols are intended for use on equipment controls, including pushbuttons, touchscreens, keypads, etc.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 80416-1, *Basic principles for graphical symbols for use on equipment — Part 1: Creation of symbol originals*

ISO 80416-2, *Basic principles for graphical symbols for uses on equipment — Part 2: Form and use of arrows*

3 Requirements for design and placement of graphical symbols

3.1 Design of graphical symbols

General requirements for the design of graphical symbols are given in IEC 80416-1 and ISO 80416-2.

Additional requirements for graphical symbols used for printing press and finishing systems include the following. The design should be clearly legible. For this purpose, the dimensions of the symbol should be a minimum of 10 mm × 10 mm in size and should be clear in both line and pixel representation. However, in certain cases, for proper pixel representation a size larger than 10 mm × 10 mm representation may be required. Text (letters or numbers) that is an integral part of the graphical symbol should be a minimum of 4 mm in height, and should be easily read from the operating position.

The graphical symbol should be designed in a positive high-contrast layout and be two-dimensional.

NOTE Isometric drawings that depict three-dimensional objects are considered to be two-dimensional graphical symbols, since they have only width and height properties.

Graphical symbols with outline shapes (such as small squares, circles, triangles, etc.) should be preferably “filled” (have a black or dark-coloured filling), as opposed to being “hollow” (have a white or light-coloured filling). However, either may be used, provided there is contrast in the background. The meaning of the graphical symbols in this Technical Report should not be based on, or altered by, the use of colour or shading.

Graphical symbols should represent the function in the actuated condition.

3.2 Placement and orientation of graphical symbols

The graphical symbol for a control element (hardware key, pushbutton, switch, etc.) should be placed adjacent to, or on, the control element. When graphical symbols are placed adjacent to the control, their placement should be consistent throughout the panel and the relationship of the graphical symbol to the control should be clear.

Unless otherwise noted, orientation of the graphical symbol is to be as shown in this Technical Report. When it is indicated that a graphical symbol may be mirrored, it is meant that the graphical symbol may be depicted as a mirrored or reverse image with respect to the vertical plane.

3.3 Submission of proposed graphical symbols for use in printing press and finishing systems

It is recognized that, as technology changes, the need for new graphical symbols for this technology may arise. In the interest of controlling the proliferation of a diverse variety of graphical symbols on equipment, users of this Technical Report are encouraged to use the basic graphical symbols presented herein as the basis for the development of other graphical symbols that meet their specific needs.

In cases where the basis for new graphical symbols cannot be found in this Technical Report, users may submit proposed graphical symbols for consideration for inclusion in future revisions. Such proposals should comply with the guidelines given in Annex B. Proposals in compliance with Annex B will be kept on file by the ISO/TC 130 Secretariat until this Technical Report undergoes revision, at which time they will be considered by the Technical Committee ISO/TC 130.

4 Grouping or organization and conventions for graphical symbols

4.1 Grouping or organization of graphical symbols

The grouping or organization of the graphical symbols in this Technical Report is as shown in Table 1.

Table 1 — Grouping of graphical symbols

Symbol number	Group number	Group name	Subclause
0.001 to 0.999	0	Basic graphical symbols	5.1
1.001 to 1.999	1	Operation-related graphical symbols	5.2
2.001 to 2.999	2	Screen-related symbols	5.3
3.001 to 3.999	3	Printing- and process (action)-related graphical symbols	5.4
4.001 to 4.999	4	Design (component/device)-related graphical symbols	5.5
5.001 to 5.999	5	Job (customer project)-related graphical symbols	5.6
6.001 to 6.999	6	Safety-related graphical symbols	5.7

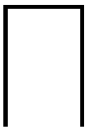
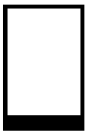
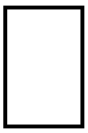
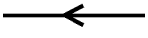
4.2 Conventions for graphical symbols

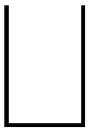
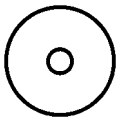
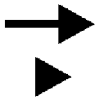
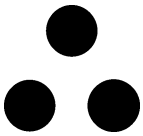
The reference source of the symbols given in Clause 5 is indicated in square brackets. In some cases, the precise shape of the graphical symbol may have been modified and is indicated after the reference source by the mention of "modified". In other instances, the symbol name or description/use may have been modified to be more relevant to the equipment used for printing press systems and finishing systems. In these cases, this is indicated after the reference source by the mention of "name" and/or "description modified".

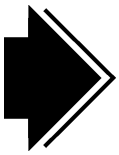
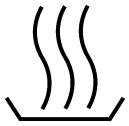
5 Graphical symbols

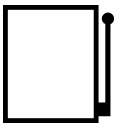
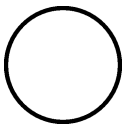
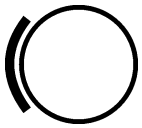
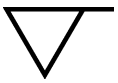
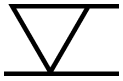
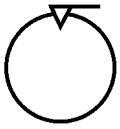
5.1 Basic graphical symbols, Group 0

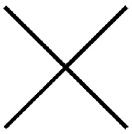
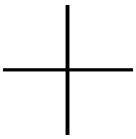
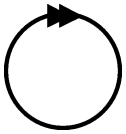
This group includes basic graphical symbols that are used for general components, such as devices (e.g. web, pump), or fluids (e.g. air, ink). They are commonly used as the basic elements for the creation of more complex graphical symbols by combining them with other lines or other symbol elements. See Annex A.

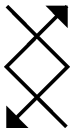
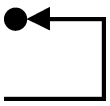
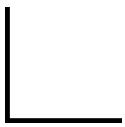
Number Symbol	Name	Description/use [Source]
0.001 	MACHINE OR SYSTEM MODULE/UNIT	Indicates a device or equipment that is part of a system and that gives it certain functions or processes. NOTE See A.2.4 for examples of how this symbol can be combined with other symbols. [ISO 7000-2729]
0.002 	DEVICE, EXTERNAL	Indicates a device or equipment, added to a system to give it certain functions or processes. [ISO 7000-2730]
0.003 	WEB	Indicates paper or similar materials used in web, rotary presses (in contrast to 0.004 SHEET) and certain finishing systems. This symbol does not require specific orientation. [ISO 7000-2731]
0.004 	SHEET	Indicates a piece of substrate of certain size, used in sheet-fed presses (in contrast to 0.003 WEB). This symbol does not require specific orientation.
0.005 	MATERIAL DIRECTION	Indicates direction of flow or movement of material or work as pointed by the arrow. This symbol does not require specific orientation. [ISO 7000-0953, modified]

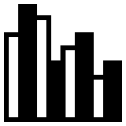
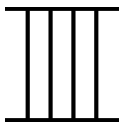
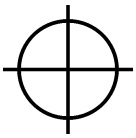
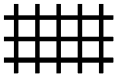
Number Symbol	Name	Description/use [Source]
0.006 	CONTAINER (tank)	Indicates a box, tank, or vessel that contains material in fluid or powder form, such as ink, dampening solution, washing solvent, spray powder, etc. Intended to be used in conjunction with another symbol.
0.007 	CYLINDER or ROLLER	Indicates a cylinder, roller, drum, or roll used on the press or finishing system. This symbol is only used in combination with other symbols. When this symbol is used in combination with other symbols, it may be necessary to eliminate the smaller centre circle. [ISO 7000-0566]
0.008 	MOVEMENT DIRECTION ARROW	Indicates direction of movement of a machine or equipment in motion or to be operated in the direction indicated by the arrow. The line may be either straight or curved.
0.009 	INK	Indicates materials or substances in the form of paste, liquid, toner, etc. used to give colour to substrates or works. [IEC 60417-5048, name and description modified]
0.010 	COATINGS, VARNISH, ETC.	Indicates an emulsion, varnish, lacquer, or similar material applied to a substrate. [ISO 7000-2732]
0.011 	GLUE	Indicates glue or adhesive material. [ISO 7000-2733]
0.012 	LIQUID	Indicates a liquid, (e.g., water, solutions, etc.). This symbol does not require specific orientation. [ISO 7000-0536]

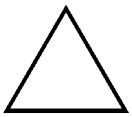
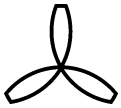
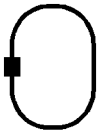
Number Symbol	Name	Description/use [Source]
0.013 	WASHING SOLUTION	Indicates materials, solvents, or a mixture of those, used to wash and clean substrates or dampening, inking, coating rollers or devices, or washing devices. This symbol does not require specific orientation. [ISO 7000-2734]
0.014 	OIL	Indicates a liquid organic combustible used for lubrication, heating, etc. [ISO 7000-1056]
0.015 	HYDRAULIC	Indicates an operation using power produced by pressurized water, oil, or other liquid in motion. [ISO 7000-0525, modified]
0.016 	AIR	Indicates an air blast, air blow, or air vacuum by means of air pumps or fans. This symbol does not require specific orientation. NOTE Examples include air used to separate, to guide, to control, or to suck sheets or similar materials individually, or to blow-dry substrates or materials wetted in the printing or washing process. See A.2.2 for examples of combining this symbol to form other symbols.
0.017 	HEATING/ DRYING	Indicates the transfer of heat in general, making the temperature higher, or indicates elements of a heating, or a drying or warming operation. [IEC 60417-5237]
0.018 	COOLING	Indicates the chilling or cooling of materials, substrates, equipment, or part of a machine to lower temperature. [ISO 7000-0027]
0.019 	ELECTRIC ENERGY	Indicates electric energy, used in combination with other symbols (e.g. 6.001). [ISO 7000-0232]

Number Symbol	Name	Description/use [Source]
0.020 	MAIN SHUT-OFF CONTROL	Indicates the main shut-off control of an electric, hydraulic, air, or other power source. It is used in combination with other symbols (e.g. 6.001).
0.021	ON	Indicates connection to the main switches or their positions, and all those cases where safety is involved. [IEC 60417-5007]
0.022 	OFF	Indicates disconnection from the main switches or their positions, and all those cases where safety is involved. [IEC 60417-5008]
0.023 	BRAKE	Indicates a device or equipment that forces slowing or stopping the motion of rotational or linear movement of a machine, equipment, or part of a machine. This symbol may be mirrored.
0.024 	SENSOR/ DETECTOR	Indicates a device that produces a signal by means of sensing a change of physical state of sound, light, temperature, pressure, etc. This symbol may be displayed rotated 180°.
0.025 	LEVEL (VOLUME)	Used to indicate a display of adjustment value, generally of volume. This symbol may be displayed rotated 180°. [ISO 7000-0159]
0.026 	MEASURING	Indicates switch that controls a measuring device (e.g. scanning densitometer).

Number Symbol	Name	Description/use [Source]
0.027 	PRESSURE	Indicates the pressure caused by compressed air, oil, or liquid, or pressure on an object. This symbol does not require specific orientation.
0.028 	CANCEL/ ESCAPE/ REJECT	Indicates the cancellation of, escape from, or rejection of, a control previously being used. NOTE This symbol means “multiplication” in ISO 7000-0654.
0.029 	INCREASE SETTING	Indicates the increase of a controlled quantity, to be used in combination with other symbols. NOTE This symbol means “plus; positive polarity” in IEC 60417-5005.
0.030	DECREASE SETTING	Indicates the decrease of a controlled quantity; to be used in combination with other symbols. NOTE This symbol means “minus; negative polarity” in IEC 60417-5006.
0.031 	VARIABILITY	Indicates the control device by means of which a quantity is controlled. The controlled quantity increases with the figure width. This symbol does not require specific orientation. NOTE Examples include speed of movement, amount of materials supplied, duration of functions such as washing or drying, temperature to be controlled, etc. [IEC 60417-5004, modified]
0.032 	SPEED	Indicates the rate of movement of a machine, equipment or part of a machine. This symbol may be mirrored.
0.033 	MANUAL OPERATION	Indicates an operation or control of a machine or equipment that is operated manually (in contrast to automatic operation). Other forms of the hands are acceptable. This symbol does not require specific orientation. [ISO 7000-0096]

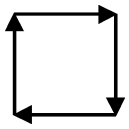
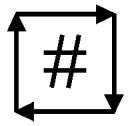
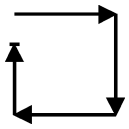
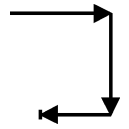
Number Symbol	Name	Description/use [Source]
0.034 	POSITIONING	Indicates the function of moving a machine, equipment, or a piece of substrate, into a certain position.
0.035 	CHANGE	Indicates the replacement of substrate, material, work, or a device, or to select the state, condition, or function of a machine or equipment. This symbol does not require specific orientation. [ISO 7000-0273, modified]
0.036 	PUMP	Indicates a device or equipment that forces the transfer of media such as air, oil, water, gas, etc., into or out of something. This symbol is used in combination with other symbols. [ISO 7000-0134]
0.037 	COMPRESSOR	Indicates a device or equipment that compresses media, such as air, gas, etc., for use in operating other equipment, such as pneumatic tools, etc. [ISO 7000-0137]
0.038 	RESET; RETURN TO INITIAL/ PREVIOUS STATE	Indicates the control that returns a device to its initial state. This can include returning to a previous or former process such as place, procedure, state, condition, function, etc. This symbol may be mirrored. [IEC 60417-5495]
0.039 	MODE	Indicates a function, condition, or state in which a specific operation can be done. This symbol is used in combination with other symbols.
0.040 	FEEDBACK CONTROL	Indicates a control used to initiate feedback [ISO 7000-0095, modified]

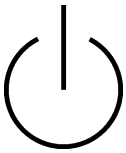
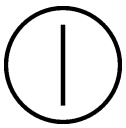
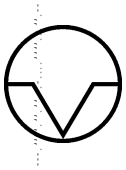
Number Symbol	Name	Description/use [Source]
0.041 	TEST (general)	Used with another symbol, indicates a testing process. [ISO 7000-2735]
0.042 	PROFILE	Used in conjunction with another symbol to indicate the graphic representation of the relation of two quantities, such as an ink profile or surface coverage profile. This symbol does not require specific orientation.
0.043 	JAM	Indicates the crumpling (jamming) of the materials in a machine. This symbol does not require specific orientation.
0.044 	ZONE (general)	Indicates a part of the area that allows an individual adaptation. NOTE In connection with printing presses, generally understood as ink zone (part of the entire inking range). See 3.026. [ISO 7000-2736]
0.045 	REGISTER	Indicates the congruent positioning of the individual colours of the image to be printed on the printing material, as well as that of the image area on both sides of the printing material. [ISO 7000-2737]
0.046 	DOUBLE PRODUCT OR SHEET	Indicates two sheets of material/substrate (such as paper) or two books or signatures being processed, transported, etc., together at the same time. This symbol does not require specific orientation.
0.047 	SAFETY COVER/ GUARD	Indicates a safety cover, guard, wire mesh or grate. This symbol does not require specific orientation. [ISO 7000-0550]

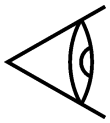
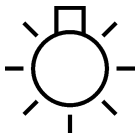
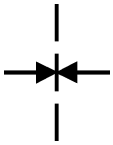
Number Symbol	Name	Description/use [Source]
0.048 	INKJET PRINTHEAD	Indicates the portion of an inkjet device that dispenses the ink. This symbol does not require specific orientation.
0.049 	CAUTION (basic meaning)	Indicates that caution should be used in connection with the control's use, function or state. This symbol is used in combination with other symbols. NOTE Refer to other standards when using this symbol on warning signs or labels. [IEC 61310-1:2007, Table 4]
0.050 	HAZARD WARNING	Indicates that a hazard exists, or may exist. [ISO 7000-0085]
0.051 	KNIFE	Indicates a knife used for cutting, slitting, trimming, etc. This symbol does not require specific orientation. [ISO 7000-2738]
0.052 	FAN	Indicates a rotating device that produces airflow. [ISO 7000-1118, name and description modified]
0.053 	STRAP	Indicates the controls for strapping a product. [ISO 7000-2739]
0.054 	MOMENTARY OPERATION	Indicates a momentary operation. This graphical symbol is intended to be used in conjunction with another graphical symbol. This symbol does not require any specific orientation, and may be either straight or curved.

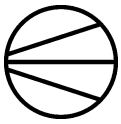
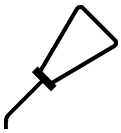
5.2 Operation-related graphical symbols, Group 1

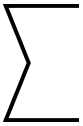
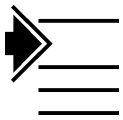
This group includes graphical symbols that are used for general functions or operations, such as adjust, measure, mix, etc.

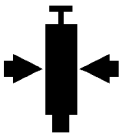
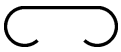
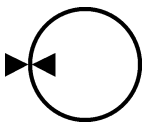
Number Symbol	Name	Description/use [Source]
1.001 	AUTOMATIC	Indicates predetermined sequence of continuous operation. [ISO 7000-0026, modified]
1.002 	AUTOMATIC CYCLES	Indicates predetermined sequence of operation performed for a predetermined number of sequential cycles. NOTE "#" indicates the number of cycles.
1.003 	AUTOMATIC SINGLE CYCLE	Indicates one complete cycle of a function. This symbol does not require specific orientation. [ISO 7000-0426, modified]
1.004 	AUTOMATIC HALF CYCLE	Indicates a function that requires operator intervention in order to move to completion. This symbol does not require specific orientation.
1.005 	RAMP UP/ INCREASE SETTING	Indicates the increase of a controlled quantity. This symbol does not require specific orientation.
1.006 	RAMP DOWN/ DECREASE SETTING	Indicates the decrease of a controlled quantity. This symbol does not require specific orientation.

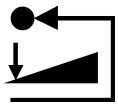
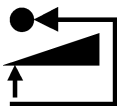
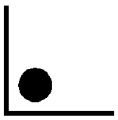
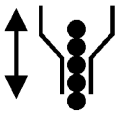
Number Symbol	Name	Description/use [Source]
1.007 	ZERO POSITION	Indicates the return of state or position to a base reference point (zero position), either real or imaginary. This symbol does not require specific orientation.
1.008 	RUNNING POSITION	Indicates the control used to move equipment or component to the running position, or that the equipment or component is in the running position. This symbol does not require specific orientation.
1.009 	BASIC (SET) POSITION	Indicates the control used to move equipment or component to the basic (set) position, or that the equipment or component is in the basic (set) position. This symbol does not require specific orientation.
1.010 	FINAL (MAX) POSITION	Indicates the control used to move equipment or component to the final (max) position, or that the equipment or component is in the final (maximum) position. This symbol does not require specific orientation.
1.011 	STAND-BY	Indicates the stand-by condition, or the control or control position used to place the equipment in the stand-by condition. [IEC 60417-5009]
1.012 	ON/OFF (PUSH-PUSH)	Indicates a pushbutton control that changes state back and forth from off to on to off, sequentially, with each depression of the pushbutton. [IEC 60417-5010]
1.013 	PAUSE	Indicates a control that can cause a control system to suspend equipment/system operations. Note When paused, equipment is still in an operating mode. [IEC 60417-5111A]

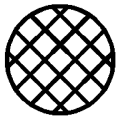
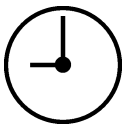
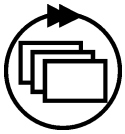
Number Symbol	Name	Description/use [Source]
1.014 	DIAGNOSIS/ EXAMINE/ CHECK	Indicates visual inspection or inspection by use of a photoelectric sensor. This symbol may be mirrored. [ISO 7000-0421]
1.015 	FINE ADJUSTMENT	Indicates a control used to make adjustments of a fine/small nature, as opposed to a coarse/large nature.
1.016 	LIGHT SOURCE	Indicates switches that control light sources. [IEC 60417-5012]
1.017 	COMBINING/ BALANCING	Indicates a function resulting in the control of, or balancing of, a mixture. This symbol does not require specific orientation.
1.018 	MIXING SUBSTANCES	Indicates the control or the indicator for the mixing of substances. This symbol does not require specific orientation. [IEC 60417-5657]
1.019 	CENTRE	Indicates a control used to bring product or component to a centred position; or, indicates centre position status of product or monitored component. This symbol does not require specific orientation. [ISO 7000-0514, modified]
1.020 	UNIT PHASING	Indicates the control used to bring press units into phase. [IEC 60417-5278]

Number Symbol	Name	Description/use [Source]
1.021 	PNEUMATICS	Indicates status or control of a pneumatic system. [ISO 7000-0231]
1.022 	LUBE (grease)	Indicates the control used to regulate the application of grease. This symbol does not require specific orientation. As an indicator, the symbol may be combined with another symbol to indicate level, pressure, temperature, etc. [ISO 7000-1316, modified]
1.023 	LUBE (oil)	Indicates the control used to regulate the application of oil. This symbol may be in any orientation. As an indicator, may be combined with another symbol to indicate level, pressure, temperature, etc. [ISO 7000-0391]
1.024 	SERVICE/ MAINAINTENCE	Indicates that service should be performed, or indicates information related to service. [ISO 7000-0717]
1.025 	SCHEDULED MAINTENANCE/ SCHEDULED SERVICE	Indicates that scheduled maintenance or service should be performed, or indicates information related to scheduled maintenance or service. [ISO 7000-0717, modified]
1.026 	CLAMP (tighten)	Indicates closure of a clamping device. This symbol does not require specific orientation.
1.027 	UNCLAMP (separate/loosen)	Indicates opening of a clamping device. This symbol does not require specific orientation.

Number Symbol	Name	Description/use [Source]
1.028 	MALFUNCTION/ FAULT/ DISTURBANCE	An indicator used to signify a fault or malfunction. [ISO 7000-0228]
1.029 	TOTAL/ SUMMATION	When located relative to a counter, indicates a counter used to track the total number of impressions or units of product. When used to select multiple printing units or multiple devices on a machine, indicates that all will be selected. As an indicator, this symbol may be combined with another symbol to indicate total counter, total waste/reject counter, etc.
1.030 	TEMPERATURE	Indicates the temperature of the item being monitored, or the control used to regulate the temperature. [ISO 7000-0034]
1.031 	AIR SEPARATION	Indicates airflow to separate product. This symbol does not require specific orientation.
1.032 	AIR PRESSURE	Indicates status or control of air pressure. This symbol does not require specific orientation.
1.033 	HYDRAULIC PRESSURE	Indicates status or control of hydraulic pressure.
1.034 	OIL PRESSURE	Indicates status or control of oil pressure.

Number Symbol	Name	Description/use [Source]
1.035 	GREASE PRESSURE	Indicates status or control of grease pressure. This symbol does not require specific orientation.
1.036 	WATER PRESSURE	Indicates status or control of water pressure. This symbol does not require specific orientation.
1.037 	STAPLE	Indicates a stitching or stapling device. This symbol does not require specific orientation. [ISO 7000-0703]
1.038 	SYNCHRONIZE	Indicates a control used to bring equipment components into synchronization or phase. This symbol does not require specific orientation. [ISO 7000-2740]
1.039 	ABOVE WORKING TEMPERATURE	Indicates temperatures that are above desired or prescribed working temperature. [ISO 7000-0432]
1.040 	BELOW WORKING TEMPERATURE	Indicates temperatures that are below desired or prescribed working temperature. [ISO 7000-0433]
1.041 	DECREASE TEMPERATURE	Indicates a control used to decrease temperature. [ISO 7000-0036, modified]

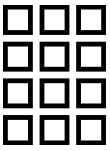
Number Symbol	Name	Description/use [Source]
1.042 	INCREASE TEMPERATURE	Indicates a control used to increase temperature. [ISO 7000-0035, modified]
1.043 	RETURN TO PREVIOUS RUNNING POSITION	Indicates a control used to return to a previous running position/state.
1.044 	DEFAULT/ RETURN TO PRE-DEFINED SETTING	Indicates a control used to return to a defined default setting or status.
1.045 	PRE-START/ WARM-UP	Indicates a control used to initiate a pre-start or warm-up procedure.
1.046 	SET-UP/ MAKE-READY	Indicates a set-up or make-ready status/condition, or a control used to initiate this condition.
1.047 	INKJET PRINTHEAD HEIGHT	Indicates control of the height positioning of the inkjet printhead. This symbol does not require specific orientation.
1.048 	DOUBLE PRODUCT/ SHEET SENSOR	Indicates a control or status related to detection of double product or sheets.

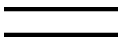
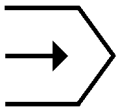
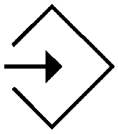
Number Symbol	Name	Description/use [Source]
1.049 	FILTER	Indicates a device used to remove impurities from gases or liquids.
1.050 	FILTER, DIRTY	Indicates a dirty filter.
1.051 	CLOCK/ TIME SWITCH/ TIMER	Indicates terminals and controls related to clocks, time switches and timers. [IEC 60417-5184]
1.052 	PROGRAMMABLE TIMER	Indicates the control for a programmable timer, such as the operating element for a programmable function. [IEC 60417-5440]
1.053 	ELAPSED TIME	Indicates the control for a display of the elapsed time from the beginning of an operation.
1.054 	PROGRAMMABLE DURATION	Indicates the control of a programmable timer for the ON condition of a part of equipment at a present point of time and for a determined duration. [IEC 60417-5417, modified]
1.055 	SHEETS/ PRODUCT PER HOUR	Indicates the number of sheets or units of product being processed per hour at the current speed of the machine.

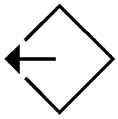
5.3 Screen-related graphical symbols, Group 2

This group includes graphical symbols that are used to indicate actions, parts and properties necessary for display or interaction with computer control screens.

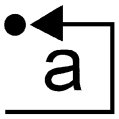
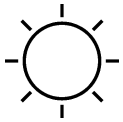
NOTE Examples of such actions include enter, store, exit, escape, ready, help, etc.

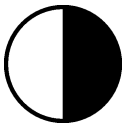
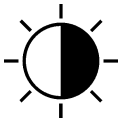
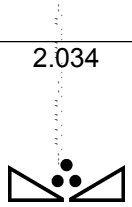
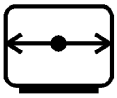
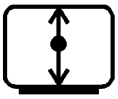
Number Symbol	Name	Description/use [Source]
2.001 	COMPUTER	Indicates a computer, or computer-controlled operation.
2.002 	SCREEN/ DISPLAY	Indicates the display area of a video terminal or monitor, either a CRT or one of the flat panel technologies.
2.003 	PRINTOUT/ PRINTER	Indicates a control used to begin or print out a listing, or, as a status indicator, that printing is in process.
2.004 	KEYBOARD/ KEYPAD	Indicates a set of alphanumeric input keys used for entering data either on screen or via external device. [IEC 60417-5770, orientation modified]
2.005 	ENTER	Indicates submission of a command on a keyboard or screen. [ISO 7000-0651, modified]
2.006 	CONFIRM	Indicates approval or acceptance. [ISO 7000-0422, name modified]

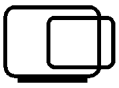
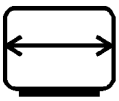
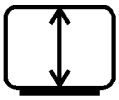
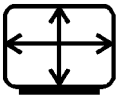
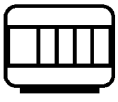
Number Symbol	Name	Description/use [Source]
2.007 	SELECT	Indicates selection of an item or function.
2.008 	HELP	Indicates an on-screen instruction regarding the use of a program.
2.009 	DEVIATION/ DIFFERENCE	Indicates movement from a reference, default or existing condition; a delta change.
2.010 	VALUE, ACTUAL/ EQUALS	Indicates entering a value or field or the determination of a value or field. [ISO 7000-0652]
2.011 	FILE	Indicates a data group with a unique name.
2.012 	DATA INPUT/ PARAMETER INPUT	Indicates inputting or reading in data, or status of processing. [ISO 7000-0991, modified]
2.013a 	SAVE/STORE	Indicates copying the data (job data), record or image being worked on onto a storage medium. [ISO 7000-1025, modified]

Number Symbol	Name	Description/use [Source]
2.013b 	SAVE/STORE (alternative symbol)	Indicates copying the data (job data), record or image being worked on onto a storage medium.
2.014a 	OPEN FILE/ RETRIEVE DATA FROM STORAGE	Indicates retrieval of data from some storage medium into memory for execution. [ISO 7000-1026, modified]
2.014b 	OPEN FILE/ RETRIEVE DATA FROM STORAGE (alternative symbol)	Indicates retrieval of data from some storage medium into memory for execution.
2.015a 	NEXT	Indicates movement to the next screen or page.
2.015b 	NEXT (alternative symbol)	Indicates movement to the next screen or page.
2.016a 	PREVIOUS	Indicates movement to the previous screen or page.
2.016b 	PREVIOUS (alternative symbol)	Indicates movement to the previous screen or page.

Number Symbol	Name	Description/use [Source]
2.017 	LAST SCREEN/ LAST PAGE	Indicates movement to the last screen or page.
2.018 	FIRST SCREEN/ FIRST PAGE	Indicates movement to the first screen or page.
2.019 	SCREEN SCROLLING	Indicates that the window may be scrolled to view all available data. The inner symbol may be rotated at 90° increments in any direction to indicate the direction of scrolling.
2.020 	INK SCREEN	Indicates display of the ink control screen.
2.021 	DAMPENING SCREEN	Indicates display of the dampening water control screen.
2.022 	DIAGRAM/ GRAPH PROFILE	Indicates a pictorial representation of information. This symbol does not require specific orientation.
2.023 	LAMP TEST	Indicates the verify lamp or indicator function. [IEC 60417-5857]

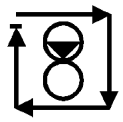
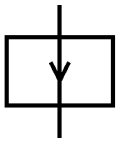
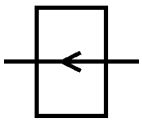
Number Symbol	Name	Description/use [Source]
2.024 	PRE-SELECT	Indicates choosing in advance.
2.025 	TEXT ORIENTATION	Indicates the rotation of characters about a horizontal line.
2.026 	DEFAULT FONT	Indicates the typeface and type size used, if none other is specified. [ISO 7000-2741]
2.027 	UNITS	Indicates selection of U.S. or metric measurement units.
2.028 	ZOOM IN	Indicates a change from a distant view to a more close-up view.
2.029 	ZOOM OUT	Indicates a change from a close-up to a more distant view.
2.030 	BRIGHTNESS	Indicates adjustment for light intensity. [IEC 60417-5056]

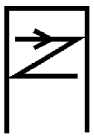
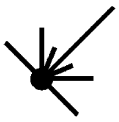
Number Symbol	Name	Description/use [Source]
2.031 	CONTRAST	Indicates adjustment for light intensity variance between light and dark. [IEC 60417-5057]
2.032 	BRIGHTNESS AND CONTRAST	Indicates adjustment for both light intensity and variance between light and dark. [IEC 60417-5435]
2.033 	COLOUR SATURATION	Indicates adjustment for intensity of colour. [IEC 60417-5058]
2.034 	HUE	Indicates adjustment for colour intensity balance. [IEC 60417-5060]
2.035 	FOCUS	Indicates adjustment for sharp image. [IEC 60417-5055, modified]
2.036 	HORIZONTAL SYNC	Indicates adjustment for picture stability in the horizontal direction. [IEC 60417-5061, modified]
2.037 	VERTICAL SYNC	Indicates adjustment for picture stability in the vertical direction. [IEC 60417-5062, modified]

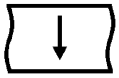
Number Symbol	Name	Description/use [Source]
2.038 	HORIZONTAL PICTURE SHIFT	Indicates adjustment for picture location in the horizontal direction. [IEC 60417-5063, modified]
2.039 	VERTICAL PICTURE SHIFT	Indicates adjustment for picture location in the vertical direction. [IEC 60417-5064, modified]
2.040 	HORIZONTAL AMPLITUDE	Indicates adjustment for the picture size in the horizontal direction. [IEC 60417-5065, modified]
2.041 	VERTICAL AMPLITUDE	Indicates adjustment for the picture size in the vertical direction. [IEC 60417-5066, modified]
2.042 	PICTURE SIZE ADJUST	Indicates adjustment for the picture size in the horizontal and vertical direction. [IEC 60417-5067, modified]
2.043 	HORIZONTAL LINEARITY	Indicates adjustment to have the horizontal size vary across the screen. [IEC 60417-5068, modified]
2.044 	VERTICAL LINEARITY	Indicates adjustment to have the vertical size vary across the screen. [IEC 60417-5069, modified]

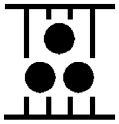
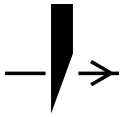
5.4 Printing- and process (action)-related graphical symbols, Group 3

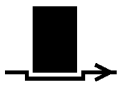
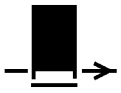
This group includes symbols that are used to indicate functions, actions, or operations that are unique to printing press systems and finishing systems, including related auxiliary equipment.

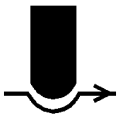
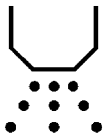
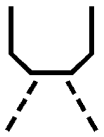
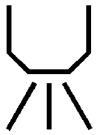
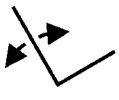
Number Symbol	Name	Description/use [Source]
3.001 	AUTOMATIC PRODUCTION	Indicates the automatic starting of the printing process on a printing press. NOTE This includes the switching-on of the feeder, the increasing of the machine speed, etc.
3.002 	SHEET TRANSPORT, TRANSVERSE	Indicates the movement of the printing material toward the operator. This symbol does not require specific orientation. NOTE This is as seen from the operating side.
3.003 	SHEET TRANSPORT, LATERAL	Indicates the movement of the printing material through the machine from the feeder (right side) toward the delivery (left side). This symbol does not require specific orientation. NOTE This is as seen from the operating side.
3.004 	IMPRESSION ON	Indicates the throwing-on of the blanket cylinder against the impression cylinder in order to transfer the image to the substrate material. The symbol can be used to indicate the status and to indicate the operating elements for activating the function.
3.005 	IMPRESSION OFF	Indicates the throwing-off of the blanket cylinder from the impression cylinder to stop the transfer of the image to the substrate material. The symbol can be used to indicate the status and to indicate the operating elements for deactivating the function.
3.006 	PRINTING SINGLE-SIDE (top / upper)	Indicates the one-sided printing of the upper side of the printing material in one pass. This symbol may be mirrored to indicate substrate movement in the opposite direction.

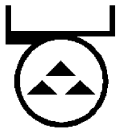
Number Symbol	Name	Description/use [Source]
3.007 	PRINTING SINGLE SIDE (bottom/lower)	Indicates the one-sided printing of the lower side of the printing material in one pass. This symbol may be mirrored to indicate substrate movement in the opposite direction.
3.008 	PRINTING TWO SIDES	Indicates the two-sided printing of the printing material in one pass. This symbol may be mirrored to indicate substrate movement in the opposite direction.
3.009 	PRINTING PLATE	Indicates the printing plate for offset printing presses.
3.010 	IMAGE TRANSFER	Indicates the process of illustrating by means of digital data on a medium.
3.011 	IMAGE TRANSFER TO PRINTING PLATE	Indicates the imaging of a printing plate using digital data.
3.012 	PRINTING PLATE CHANGE	Indicates the exchanging of printing plates on a printing press.
3.013 	IMAGE AREA PERCENT COVERAGE	Indicates the percent of printing forme used as the image area.

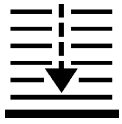
Number Symbol	Name	Description/use [Source]
3.014 	IMAGE COVERAGE PROFILE	Indicates the ratio of printing and non-printing zones of a printing plate related to each individual part of an inking zone that allows an individual ink dosage across the printing direction.
3.015 	DAMPENING SOLUTION COOLING	Indicates the reduction of the temperature of the dampening solution for the offset process.
3.016 	PLATE COCKING	Indicates plate cocking (skewing). The arrow shall indicate which side of the plate is to be moved and in which direction. This symbol may be mirrored.
3.017 	SHEET COCKING	Indicates control to rotate the sheet in any direction. The arrow shall indicate which side of the sheet is to be moved and in which direction.
3.018 	TRANSVERSE WEB MOVEMENT	Indicates side movement of the web in the direction of the arrow. This symbol may be rotated 180°.
3.019 	REGISTER ADJUSTMENT, DIAGONAL/ COCKING	Indicates the shifting of the image to be printed diagonal to the running direction of the substrate of the printing material. This symbol may be mirrored.
3.020 	REGISTER ADJUSTMENT, LATERAL/ SIDELAY	Indicates the shifting of the image to be printed across the running direction of the substrate of the printing material.

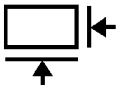
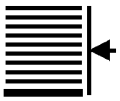
Number Symbol	Name	Description/use [Source]
3.021 	REGISTER ADJUSTMENT, CIRCUMFERENTIAL	Indicates the shifting of the image to be printed in the running direction of the substrate of the printing material.
3.022 	MOMENTARY INCREASE DAMPENING QUANTITY	Indicates the momentary, significant increase of the dampening solution quantity to obtain a quicker change in dampening on the printing material.
3.023 	MOMENTARY INCREASE INK QUANTITY	Indicates the momentary, significant increase of the ink quantity to obtain a quicker change in colour on the printing material.
3.024 	MOMENTARY DECREASE INK QUANTITY	Indicates the momentary, significant decrease of the ink quantity to obtain a quicker change in colour on the printing material.
3.025 	INK PROFILE	Indicates the zonal distribution of the ink quantity, required to obtain a certain printing image, across the width of the printing material.
3.026 	INK ZONE	Indicates the very part of an inking area that allows an individual ink dosage across the printing direction.
3.027 	CUT	Indicates cutting, trimming, sheeting or slitting product. The arrow may be reversed to indicate product flow. [ISO 7000-2742]

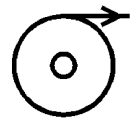
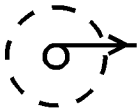
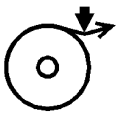
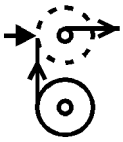
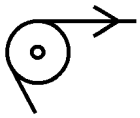
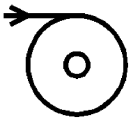
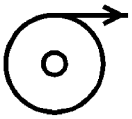
Number Symbol	Name	Description/use [Source]
3.028 	TWO-KNIFE TRIMMING/ CUTTING	Indicates the cutting of the side edges of the printing material. [ISO 7000-2743]
3.029 	CHOPPER TIMER ADJUST	Indicates adjustment control for chopper timing in the folder of a web press. This symbol may be mirrored.
3.030 	PERFORATE	Indicates the production of lines of holes and slots in a substrate to allow a later separation. This symbol may be mirrored.
3.031 	PERFORATE WEB	Indicates the production of straight lines of holes or slots in a printing material in the web-running direction to allow a later separation. This symbol may be mirrored.
3.032 	PERFORATE SHEET	Indicates the production of straight lines of holes and slots in a sheet across the running direction to allow a later separation. This symbol may be mirrored.
3.033 	EMBOSSING/ DEBOSSING	Indicates the use of dies to impress raised or sunken images or textures onto blank or printed substrates. This symbol may be mirrored or rotated 180°.
3.034 	DIECUTTING/ PUNCHING/ DRILLING	Indicates a diecutting, punching, or drilling operation, function or control. This symbol may be mirrored.

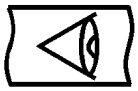
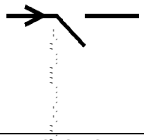
Number Symbol	Name	Description/use [Source]
3.035 	CREASING/ SCORING	Indicates a creasing or scoring operation, function or control. This symbol may be mirrored or rotated 180°.
3.036 	DRY SPRAYING (powder)	Indicates the distribution of particles of solid matter onto the sheets to avoid contact between two successive sheets and, thus, to prevent the ink from setting off. This symbol does not require specific orientation.
3.037 	LIQUID SPRAY	Indicates the application of a liquid by means of spraying. This symbol does not require specific orientation.
3.038 	SPRAY WASHING	Indicates the application of a liquid washing solution by means of spraying. This symbol does not require specific orientation.
3.039 	INK ROLLER WASH-UP	Indicates the cleaning of the ink rollers of an inking unit. This symbol does not require specific orientation. [ISO 7000-0707, modified]
3.040 	BLANKET WASH	Indicates the cleaning of the blanket in a printing unit. This symbol does not require specific orientation. [ISO 7000-0706, modified]
3.041 	TILT TABLE ADJUST	Indicates adjustment to change the angle of the tilt table.

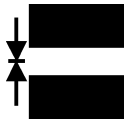
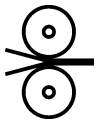
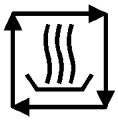
Number Symbol	Name	Description/use [Source]
3.042 	FEEDER JAM	Indicates the crumpling of the printing material in the feeder. This symbol may be mirrored.
3.043 	GLUING (general)	Indicates the application of an adhesive to the printing material. This symbol may be in any orientation as long as the symbol for "glue" remains in the orientation shown in 0.011.
3.044 	GLUE TEMPERATURE	Indicates the temperature of the glue. This symbol may be mirrored.
3.045 	LINEAR GLUE	Indicates glue applied to a substrate in a straight line. This symbol may be in any orientation as long as the symbol for "glue" remains in the orientation shown in 0.011.
3.046 	SPINE GLUE	Indicates glue applied to the spine of a book block or similar product.
3.047 	SIDE GLUE	Indicates glue applied to the side of a book block or similar product.
3.048 	GLUE THICKNESS	Indicates control for glue film thickness.

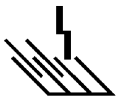
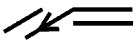
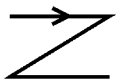
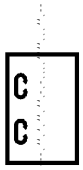
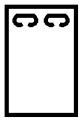
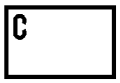
Number Symbol	Name	Description/use [Source]
3.049 	NIPPING	Indicates the nipping to nip the book spine with a cover to enable attaching the cover to the book spine with glue.
3.050 	MILLING FUNCTION/ CUTTER	Indicates preparation of the book spine before application of the glue.
3.051 	PILE DOWN	Indicates control to lower the pile elevator. [ISO 7000-0892, modified]
3.052 	PILE UP	Indicates control to raise the pile elevator. [ISO 7000-0891, modified]
3.053 	AUXILIARY PILE DOWN	Indicates control to lower the auxiliary pile elevator.
3.054 	AUXILIARY PILE UP	Indicates control to raise the auxiliary pile elevator.
3.055 	PILE DOWN SLOW	Indicates control to lower pile elevator at slow speed.

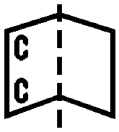
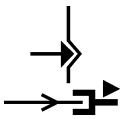
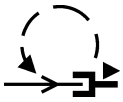
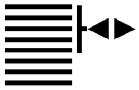
Number Symbol	Name	Description/use [Source]
3.056 	PILE UP SLOW	Indicates control to raise pile elevator at slow speed.
3.057 	FEEDER ON	Indicates the switching-on of the feeder. This symbol may be mirrored.
3.058 	FEEDER OFF	Indicates the switching-off of the feeder. This symbol may be mirrored.
3.059 	JOGGING	Indicates the jogging of the sheet(s). This symbol may be rotated in 90° increments.
3.060 	PUSH PRODUCT	Indicates pushing a pile of product in a lateral direction. This symbol may be mirrored. [ISO 7000-2744, modified]
3.061 	PUSH PRODUCT, AUTOMATIC SEQUENCE	Indicates an automatic sequence to push product in a lateral direction. This symbol may be mirrored. [ISO 7000-2745, modified]
3.062 	OFFSET STACK	Indicates an offset stacking configuration. NOTE Use symbol 4.006 (pile/stack) to indicate "straight stack." [ISO 7000-2746]

Number Symbol	Name	Description/use [Source]
3.063 	ROLL	Indicates a roll of substrate. This symbol may be in any orientation.
3.064 	END of ROLL	Indicates that the material has been used up. This symbol may be in any orientation.
3.065 	DECURL, WEB	Indicates decurling the web. This symbol may be in any orientation.
3.066 	SPLICE IMMINENT	Indicates that a splicing operation is about to occur. This symbol does not require specific orientation.
3.067 	WEB TRANSPORT	Shows the direction of sheet or web transport around the cylinder. This symbol does not require specific orientation. [ISO 7000-0043, modified]
3.068 	WINDING WEB	Indicates the process of winding a web of material into a roll. This symbol does not require specific orientation. [ISO 7000-0037, modified]
3.069 	UNWINDING WEB	Indicates the process of unwinding a roll of material. This symbol does not require specific orientation. [ISO 7000-0038, modified]

Number Symbol	Name	Description/use [Source]
3.070 	WEB INSPECTION	Indicates the observation of the web of the printing material for the purpose of quality control.
3.071 	WEB TENSION	Indicates the physical tractive forces occurring in the web of the printing material during the machine run. This symbol does not require specific orientation.
3.072 	WEB BREAK	Indicates the tearing apart of the web of the printing material caused by physical forces during the machine run. This symbol does not require specific orientation.
3.073 	OPERATOR	Indicates the person that uses the press or technical equipment for a specific purpose. [IEC 60417-5188]
3.074 	VACUUM	Indicates suction. [ISO 7000-0033, modified]
3.075 	CHILL AIR	Indicates cooled air, in general. NOTE The specific use of the cooling air is undefined by this symbol.
3.076 	METERING, DAMPENING	Indicates control of dampening supply moisture film by use of a squeegee roller. This symbol may be mirrored.

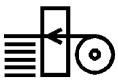
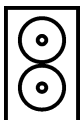
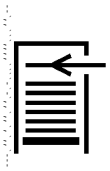
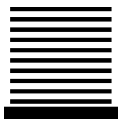
Number Symbol	Name	Description/use [Source]
3.077 	PLATEN IMPRESSION	Indicates movement of the platens together; the line indicates end of movement. This symbol does not require specific orientation.
3.078 	NUMBERING	Indicates the process of assigning printing materials or copies of a sheet or web to a continuous number. This symbol may be rotated in 90° increments.
3.079 	LAMINATION	Indicates two cylinders laminating two sheets/webs together. This symbol does not require specific orientation. [ISO 7000-0207]
3.080 	AUTOMATIC DRYING SEQUENCE	Indicates automatic drying sequence.
3.081 	START TEST RUN	Indicates the start of a test run of the machine. [IEC 60417-5659]
3.082 	SHEET OVERLAP/ SHINGLE	Indicates a control for spacing of overlapped sheets. This symbol does not require specific orientation. [ISO 7000-2747]
3.083 	COLLATING/ INSERTING	Indicates a collating or inserting operation. This symbol may be mirrored.

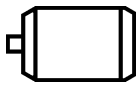
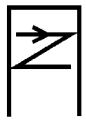
Number Symbol	Name	Description/use [Source]
3.084 	COLLATING/ INSERTING MALFUNCTION	Indicates a malfunction in a collating or inserting operation. This symbol may be mirrored.
3.085 	DIVERT	Indicates a change or diversion of product flow. This symbol does not require specific orientation.
3.086 	FOLDING	Indicates the systematic bending of printed or blank substrate (web or sheet). This symbol may be mirrored.
3.087 	SIDE STITCH	Indicates one of the stitching styles known as side stitch.
3.088 	TOP STITCH	Indicates one of the stitching styles knows as top stitch.
3.089 	CORNER STITCH (far side)	Indicates one of the stitching styles known as corner stitch (far side).
3.090 	CORNER STITCH (near side)	Indicates one of the stitching styles known as corner stitch (near side).

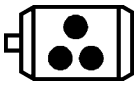
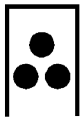
Number Symbol	Name	Description/use [Source]
3.091 	SADDLE STITCH	Indicates one of the stitching styles known as saddle stitch.
3.092 	SIDE (TOP) STITCH and FOLD	Indicates one of the stitching styles known as side (top) stitch and fold.
3.093 	WEB-UP PRE-SET POSITION	Indicates a control used to move the machine to the position required to begin the web-up process.
3.094 	WEB-UP HOLD-TO-RUN FORWARD	Indicates a control used to inch the machine forward during the web-up procedure.
3.095 	PRODUCT ADJUST STOP	Indicates product stop adjustment. This symbol may be mirrored.

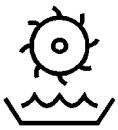
5.5 Design (component/device)-related graphical symbols, Group 4

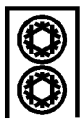
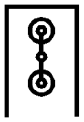
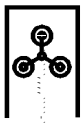
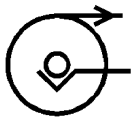
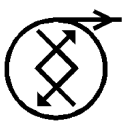
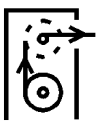
This group includes symbols that shall be used to indicate devices and components that are unique to printing press systems and finishing systems, including related auxiliary equipment.

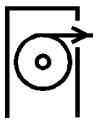
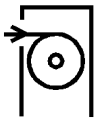
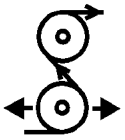
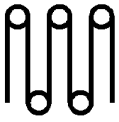
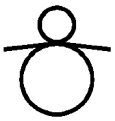
Number Symbol	Name	Description/use [Source]
4.001 	PRINTING PRESS, SHEET-FED	Indicates a sheet-fed printing press. This symbol may be mirrored.
4.002 	PRINTING PRESS, WEB-FED	Indicates a web-fed printing press. This symbol may be mirrored.
4.003 	PRINTING UNIT	Indicates a printing unit. [ISO 7000-2748]
4.004 	FEEDER UNIT	Indicates a feeder unit. This symbol may be mirrored.
4.005 	DELIVERY UNIT	Indicates a delivery unit. This symbol may be mirrored.
4.006 	PILE/STACK	Indicates a pile or stack of substrate, either printed or unprinted. Also used to indicate straight stacking. NOTE See symbol 3.062 for "offset stack."

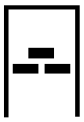
Number Symbol	Name	Description/use [Source]
4.007 	DRIVE (electric motor)	Indicates a drive or electric motor used to produce motion of a machine component. This symbol does not require specific orientation. [ISO 7000-0011]
4.008 	FOLDER UNIT	Indicates a unit where substrate is folded. This symbol may be mirrored.
4.009 	INK ROLLER	Indicates a roller that transfers ink.
4.010 	INK DUCTOR ROLLER	Indicates a roller that transfers ink from the ink fountain roller to the ink train. This symbol may be mirrored.
4.011 	INK VOLUME CONTROL	Indicates a control that regulates the volume of ink applied to the rollers. This symbol may be mirrored.
4.012 	INK FORM ROLLER	Indicates the roller that applies ink to the printing plate. This symbol may be in any orientation as long as the ink symbol remains in the orientation shown in 0.009.
4.013 	INK FOUNTAIN	Indicates the pan on a printing press that holds the ink to be transferred to the inking system. This symbol may be mirrored.

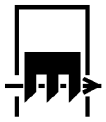
Number Symbol	Name	Description/use [Source]
4.014 	INK FOUNTAIN, FLEXO/ GRAVURE	Indicates the pan on a flexo or gravure press that holds the ink to be transferred to the plate or cylinder.
4.015 	INK MOTOR	Indicates the motor that drives the ink fountain roller. This symbol may be in any orientation as long as the ink symbol remains in the orientation shown in 0.009.
4.016 	INK UNIT	Indicates a unit consisting of the ink fountain and rollers that apply ink to the image carrier.
4.017 	DAMPENING UNIT	Indicates a unit for supplying dampening solution in the offset process.
4.018 	DAMPENING ROLLER	Indicates a roller in the dampening system.
4.019 	DAMPENING VOLUME CONTROL	Indicates the control that regulates the volume of dampening solution applied to the plate.
4.020 	DAMPENING FOUNTAIN	Indicates the container and roller that supply dampening solution to the system.

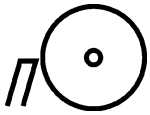
Number Symbol	Name	Description/use [Source]
4.021 	DAMPENING FORM ROLLER	Indicates the roller that applies dampening solution to the plate. This symbol may be in any orientation as long as the liquid symbol remains in the orientation shown in 0.012.
4.022 	DAMPENING SPRAY UNIT	Indicates the unit for spraying dampening solution into a printing system.
4.023 	DAMPENING BRUSH ROLLER	Indicates control or status of the dampening brush roller.
4.024 	HOT WATER SYSTEM	Indicates a system to provide heated water or other heated solution.
4.025 	CHILL WATER SYSTEM	Indicates a system to provide chilled water or other chilled solution. [ISO 7000-0544]
4.026 	COOLING DEVICE/ CHILLER	Indicates the device for reducing the temperature of a liquid; e.g. a dampening solution for the offset process.
4.027 	CHILL ROLLER	Indicates control or status of the chill roller.

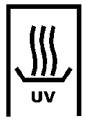
Number Symbol	Name	Description/use [Source]
4.028 	CHILL ROLL UNIT	Indicates a unit used to reduce the temperature of the substrate by passing it over water-cooled rollers.
4.029 	ONE ARM REEL STAND UNIT	Indicates a reel stand designed to hold one roll of substrate that is fed, using the rotational arm, into a web-fed press, sheeter, in-line finishing machine or other printing machine. This symbol does not require specific orientation. [ISO 7000-0888, modified]
4.030 	TWO ARM REEL STAND UNIT	Indicates a reel stand designed to hold two rolls of substrate for feeding into a web fed press, sheeter, in-line finishing machine or other printing machine. This symbol does not require specific orientation. [ISO 7000-0889, modified]
4.031 	THREE ARM REEL STAND UNIT	Indicates a reel stand designed to hold three rolls of substrate for feeding into a web fed press, sheeter, in-line finishing machine or other printing machine. This symbol does not require specific orientation. [ISO 7000-0890, modified]
4.032 	ROLL LIFTING DEVICE	Indicates a unit that places a roll of substrate onto the roll stand. This symbol may be mirrored.
4.033 	ROLL CHANGE	Indicates the roll change process.
4.034 	SPLICING UNIT	Indicates a unit that splices a new roll of material to the end of a used roll. This symbol may be mirrored.

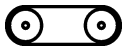
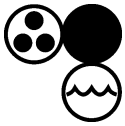
Number Symbol	Name	Description/use [Source]
4.035 	UNWIND UNIT	Indicates a unit that unwinds a roll of material. This symbol may be mirrored.
4.036 	REWIND UNIT	Indicates a unit that rewinds a roll of material. This symbol may be mirrored.
4.037 	WEB INFEED UNIT	Indicates a unit that controls the tension of the web as it feeds into the printing units. This symbol may be mirrored.
4.038 	WEB INFEED ROLLERS	Indicates the device that controls tension before printing units, or meters substrate into the press. This symbol does not require specific orientation.
4.039 	COMPENSATOR, WEB	Indicates a roller adjustment for registration; may show any number of rollers. This symbol does not require specific orientation.
4.040 	FESTOON/ COMPENSATOR	Indicates a series of rollers that provide a controlled, constant supply of web material; generally used during a splicing operation. This symbol does not require specific orientation.
4.041 	NIP ROLLER	Indicates control or status of the nip roller. This symbol does not require specific orientation.

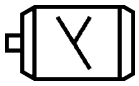
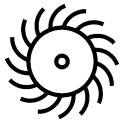
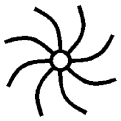
Number Symbol	Name	Description/use [Source]
4.042 	COATER	Indicates the pan and roller assembly that transfers the coating from the pan to the roller train.
4.043 	COATING UNIT	Indicates the unit where coating is applied to the substrate.
4.044 	SPRAYING UNIT, POWDER	Indicates the unit used to deliver a sprayed dry/powder material.
4.045 	SPRAYING UNIT, LIQUID	Indicates the unit used to deliver a sprayed liquid material.
4.046 	NUMBERING UNIT	Indicates a unit that applies a number to the substrate.
4.047 	SHEETING/ CUTTING/ SLITTING/ TRIMMING UNIT	Indicates the unit used to sheet, cut, slit or trim substrate or product. This symbol may be mirrored.
4.048 	DIECUTTING/ PUNCHING/ DRILLING UNIT	Indicates the unit used to diecut, punch or drill holes in material. This symbol may be mirrored.

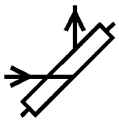
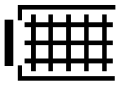
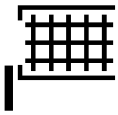
Number Symbol	Name	Description/use [Source]
4.049 	CREASING/ SCORING UNIT	Indicates a unit used to crease or score substrate. This symbol may be mirrored.
4.050 	PERFORATING UNIT	Indicates a unit used to perforate a web or sheet. This symbol may be mirrored.
4.051 	GLUING DEVICE	Indicates the device that places an adhesive on the product.
4.052 	GLUE TANK	Indicates a glue tank and the dispensing roller.
4.053 	CENTRIFUGAL PUMP	Indicates a pump that forces the transfer of the material being pumped using centrifugal force. [ISO 7000-0135]
4.054 	WATER PUMP	Indicates a device or equipment that forces the transfer of water into or out of something. [ISO 7000-0356]
4.055 	COOLANT PUMP	Indicates a device or equipment that forces the transfer of coolant into or out of something. [ISO 7000-0355]

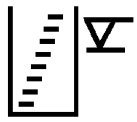
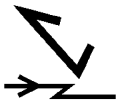
Number Symbol	Name	Description/use [Source]
4.056 	HYDRAULIC PUMP	Indicates a device or equipment that forces the transfer of hydraulic fluid into or out of something.
4.057 	OIL PUMP	Indicates a device or equipment that forces the transfer of oil into or out of something. [ISO 7000-0360]
4.058 	VACUUM PUMP	Indicates a device or equipment that forces the transfer of air out of something.
4.059 	DOCTOR BLADE/ DOCTOR BLADE ON	Indicates that the doctor blade is in the ON position. This symbol does not require specific orientation. [ISO 7000-0900]
4.060 	DOCTOR BLADE OFF	Indicates that the doctor blade is in the OFF position. This symbol does not require specific orientation. [ISO 7000-0901]
4.061 	SUCTION HEAD, FEEDER	Indicates the suction head used to feed product into a mechanism. This symbol may be mirrored.
4.062 	DRYER	Indicates a unit used to dry printed or coated product.

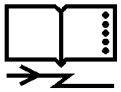
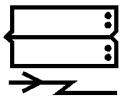
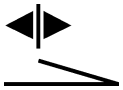
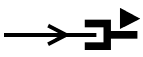
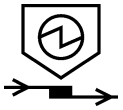
Number Symbol	Name	Description/use [Source]
4.063 	DRYER, EB	Indicates drying by an electronic beam device.
4.064 	DRYER, IR	Indicates drying by an infrared energy device.
4.065 	DRYER, UV	Indicates drying by a UV energy device.
4.066 	AGITATOR	Indicates a device used to stir materials. This symbol may be mirrored. [ISO 7000-0131]
4.067 	AIR BLAST, ANGLE BAR	Indicates a device used to control the direction and concentration of airflow at the point of a web turn bar. This symbol does not require specific orientation.
4.068 	AIR KNIFE	Indicates a device used to control the direction and concentration of air flowing onto a substrate. This symbol does not require specific orientation.
4.069 	AIR BLOWDOWN	Indicates a device used to direct air in a downward direction; generally used to control positioning of product or sheets of substrate. This symbol does not require specific orientation.

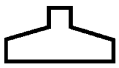
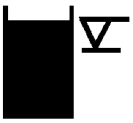
Number Symbol	Name	Description/use [Source]
4.070 	CHASE	Indicates a device used to position and hold dies or printing type; used in impact printing, such as letterpress, embossing, diecutting, etc. This symbol does not require specific orientation.
4.071 	CONVEYOR BELT	Indicates a device used to transport product between machines or machine components. This symbol does not require specific orientation. [ISO 7000-0229, modified]
4.072 	VACUUM CONVEYOR BELT	Indicates the belt that controls product movement using a vacuum. This symbol does not require specific orientation.
4.073 	CREASE SOFTENER	Indicates a device used to apply a softener to the substrate prior to creasing/scoring. This symbol may be mirrored.
4.074 	BRIDGE ROLLER	Indicates a roller that connects the inking unit with the dampening unit.
4.075 	SPIRAL FOLDER	Indicates a device used in a folder to produce a fan fold. This symbol does not require specific orientation.
4.076 	FORMER	Indicates the former used to fold the web continuously with the triangle plate and folding cylinder.

Number Symbol	Name	Description/use [Source]
4.077 	KICKER	Indicates a device that causes product to be offset from normal. This symbol may be mirrored.
4.078 	HYDRAULIC MOTOR	Indicates the hydraulic motor. This symbol does not require specific orientation as long as the hydraulic symbol remains oriented as shown in 0.015.
4.079 	PLOW	Indicates a device used to separate or form substrate or product. This symbol does not require specific orientation.
4.080 	BRUSH ROLLER/ BEATER BRUSH	Indicates control or status of a brush roller or beater brush. NOTE May be depicted with any number of radiating "bristles." [ISO 7000-0307]
4.081 	PRODUCT DELIVERY FAN	Indicates a mechanical device that receives individual product for delivery onto a conveyor.
4.082 	WASHING CLOTH, BLANKET	Indicates the control or status for a washing cloth. This symbol may be mirrored.
4.083 	WIRE FEED	Indicates the rollers used to feed wire. This symbol does not require specific orientation.

Number Symbol	Name	Description/use [Source]
4.084 	TURN BAR, WEB	Indicates the control or status for the turn bar. This symbol does not require specific orientation.
4.085 	GUARD CLOSED/ CLOSE GUARD	Indicates that guards or safety covers are closed, or identifies a control to close guards or safety covers. [ISO 7000-0915, modified]
4.086 	GUARD OPEN/ OPEN GUARD	Indicates that guards or safety covers are open, or identifies a control to open guards or safety covers. [ISO 7000-0914, modified]
4.087 	SCREEN SQUEEGEE	Indicates a squeegee (usually made of an elastic material) used in the silkscreen printing process to transfer the paste onto the substrate. This symbol does not require specific orientation.
4.088 	SCREEN SCOOPER	Indicates a scooper used in the silkscreen printing process to carry the paste from the terminal of the screen to the start point. This symbol does not require specific orientation.
4.089 	SCREEN SCRAPER	Indicates the scraper used in the silkscreen printing process to smooth the paste on the silk screen. This symbol does not require specific orientation.
4.090 	SCREEN FRAME	Indicates a screen frame of a printing screen. This symbol does not require specific orientation.

Number Symbol	Name	Description/use [Source]
4.091 	TRIM BOX LEVEL	Indicates the level of the container holding trim waste. This symbol may be mirrored.
4.092 	SINGLE FOLD	Indicates a single-fold (4 pages) folding pattern. This symbol may be mirrored to show movement in the opposite direction, if needed.
4.093 	SHORT FOLD	Indicates a short-fold folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.094 	GATE FOLD	Indicates a gate-fold (8-page) folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.095 	ACCORDION FOLD	Indicates an accordion-fold (6-page) folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.096 	LETTER FOLD	Indicates a letter-fold (6-page) folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.097 	PARALLEL FOLD	Indicates a parallel-fold folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.

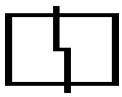
Number Symbol	Name	Description/use [Source]
4.098 	CROSS FOLD	Indicates a cross-fold folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.099 	LONGITUDINAL FOLD	Indicates a longitudinal-fold folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.100 	WINDOW FOLD	Indicates a window-fold folding pattern. This symbol may be mirrored to show movement in opposite direction, if needed.
4.101 	FOLDER BUCKLE PLATE	Indicates the device used to cause substrate passing through a folder to be forced into the in-turning nip of two rollers. This device normally has an adjustable stop to regulate the length of the substrate that may pass before being forced into the nip.
4.102 	OVERLAP ADJUSTMENT	Indicates adjustment of overlap.
4.103 	WEB-UP DEVICE	Indicates the device used to thread a web through the machine.
4.104 	TACKER/ ELECTROSTATIC PASTER	Indicates a device that applies an electrostatic charge to the substrate.

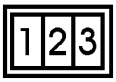
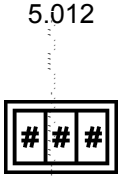
Number Symbol	Name	Description/use [Source]
4.105 	BACKGAUGE	Indicates the back gauge of a guillotine cutter. This symbol does not require specific orientation.
4.106 	TOTALIZER	Indicates the total throughput during the life of the equipment.
4.107 	HIGH TANK LEVEL	Indicates that the level of tank contents is high. This symbol may be mirrored.
4.108 	LOW TANK LEVEL	Indicates that the level of tank contents is low. This symbol may be mirrored.
4.109 	BLANKET CYLINDER	Indicates the rubber-covered cylinder used to transfer the image from plate to substrate in the offset printing process.
4.110 	PLATE CYLINDER	Indicates a cylinder that carries a printing image plate.
4.111 	TOP PRODUCT PLATFORM	Indicates the top or upper platform on which product is located.

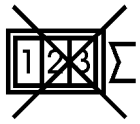
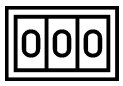
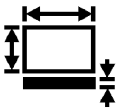
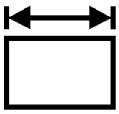
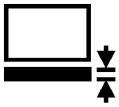
Number Symbol	Name	Description/use [Source]
4.112 	BOTTOM PRODUCT PLATFORM	Indicates the bottom or lower platform on which product is located.
4.113 	CONVEYOR ROLLERS	Indicates conveyor rollers. This symbol does not require specific orientation.

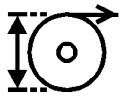
5.6 Job (customer project)-related graphical symbols, Group 5

This group includes symbols that shall be used to indicate functions, components, and measurements of printing jobs.

Number Symbol	Name	Description/use [Source]
5.001 	OPERATION	Indicates one of the steps in a job workflow.
5.002 	OPERATION BEGINNING	Indicates the beginning or starting of the action of a process.
5.003 	OPERATION END	Indicates the end or completion of the action of a process.
5.004 	OPERATION MALFUNCTION	Indicates the failure or malfunction of a particular action within a process.
5.005 	OPERATION STATUS	Indicates the condition of an action or process. The solid colour area shall change to reflect the percent of completion.
5.006 	JOB TICKET/ JOB SHEET	Indicates job-related information for print set-up and production.

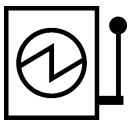
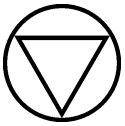
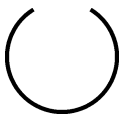
Number Symbol	Name	Description/use [Source]
5.007 	SIGNATURE	Indicates a signature (including a two-page signature) within a job.
5.008 	CUSTOMER	Indicates one who buys goods or services.
5.009 	MEMO	Indicates a note for a job ticket.
5.010 	COUNTER, BATCH	Indicates the count of product in the current batch.
5.011 	COUNTER, GOOD	Indicates the count of acceptable product in the current job. [ISO 7000-0695, modified]
5.012 	COUNTER, PRESET	Indicates setting the count in the counter to a specific number. [ISO 7000-2749]
5.013 	COUNTER, TOTAL	Indicates the count of product since the last reset.

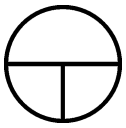
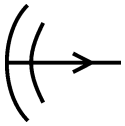
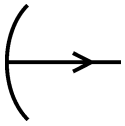
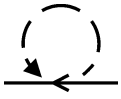
Number Symbol	Name	Description/use [Source]
5.014 	COUNTER, REJECT	Indicates the count of rejected product in the current job.
5.015 	COUNTER, RESET	Indicates setting the count in the counter to zero. [ISO 7000-2750]
5.016 	DIMENSIONS, SHEET	Indicates input or readout of substrate sheet dimensions.
5.017 	DIMENSION, SHEET, LENGTH	Indicates input or readout of substrate sheet dimension for length.
5.018 	DIMENSION, SHEET, WIDTH	Indicates input or readout of substrate sheet dimension for width.
5.019 	DIMENSION, SUBSTRATE THICKNESS (sheet)	Indicates input or readout of the thickness of a sheet of substrate.
5.020 	DIMENSION, SUBSTRATE THICKNESS (web)	Indicates input or readout of the thickness of a web substrate.

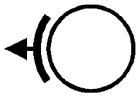
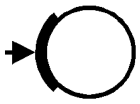
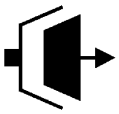
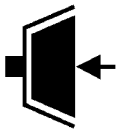
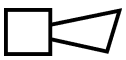
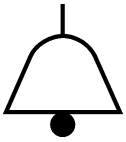
Number Symbol	Name	Description/use [Source]
5.021 	DIMENSION, WEB, WIDTH	Indicates input or readout of substrate web dimension for width.
5.022 	DIMENSION, WEB, ROLL DIAMETER	Indicates input or readout of substrate web dimension for roll diameter.
5.023 	DIMENSION, WEB, CORE DIAMETER	Indicates input or readout of substrate web dimension for roll core.

5.7 Safety-related graphical symbols, Group 6

This group includes symbols that shall be used to indicate safety functions and warnings in printing press systems and finishing systems, including related auxiliary equipment.

Number Symbol	Name	Description/use [Source]
6.001 	MAIN POWER SWITCH	Indicates the main electrical power switch. [ISO 7000-0353]
6.002 	RUN / START	Indicates the start control device. [IEC 60417-5104]
6.003 	STOP	Indicates the control device by means of which an action is stopped. [IEC 60417-5110A]
6.004 	EMERGENCY STOP	Indicates an emergency stop control device. [IEC 60417-5638]
6.005 	STOP / SAFE	Indicates a pushbutton used for the stop/safe function.
6.006 	READY	Indicates a control that puts the machine into a ready condition, in which machine motion can be operator initiated. [ISO 7000-1140]

Number Symbol	Name	Description/use [Source]
6.007 	ON/OFF	Indicates a connection to, or disconnection from, a main switch. OFF is a stable position, and the ON position only remains during the time the button is depressed. [IEC 60417-5011]
6.008 	CRAWL SPEED	Indicates a function dealing with a speed that is much reduced from a normal press operating speed; usually called a crawl speed. [ISO 7000-0528, modified]
6.009 	SLOW SPEED	Indicates a function dealing with a speed that is reduced from a normal press operating speed; usually called a slow speed. [ISO 7000-0527, modified]
6.010 	ON SAFEGUARD/ INTERLOCK/ BLOCK	Indicates a function of changing a safety interlock or safeguard to an ON condition. This symbol does not require specific orientation.
6.011 	OFF SAFEGUARD/ INTERLOCK/ BLOCK	Indicates a function of removing a permanent ON condition of a safety interlock or safeguard. This symbol does not require specific orientation.
6.012 	HOLD-TO-RUN FORWARD	Indicates a function of starting and maintaining machine motion in a forward direction only as long as the control is activated. This symbol may be mirrored. [ISO 7000-0970, name modified]
6.013 	HOLD-TO-RUN REVERSE	Indicates a function of starting and maintaining machine motion in a reverse direction only as long as the control is activated. This symbol may be mirrored. [ISO 7000-0971, name modified]

Number Symbol	Name	Description/use [Source]
6.014 	BRAKE RELEASE/ BRAKE OFF	Indicates the “brake off” condition. This symbol does not require specific orientation. [ISO 7000-0021, modified]
6.015 	BRAKE APPLY BRAKE OFF	Indicates the “brake on” condition. This symbol does not require specific orientation. [ISO 7000-0020, modified]
6.016 	CLUTCH DISENGAGE	Indicates a function of disengaging a drive clutch. This symbol does not require specific orientation.
6.017 	CLUTCH ENGAGE	Indicates a function of disengaging a drive clutch. This symbol does not require specific orientation.
6.018 	AUDIBLE SIGNAL, HORN	Indicates an audible alarm used to warn about the initiation of machine motion with a horn sound. This symbol may be mirrored. [IEC 60417-5014]
6.019 	AUDIBLE SIGNAL, HORN (alternate)	Indicates an audible alarm used to warn about the initiation of machine motion with a horn sound. This symbol may be mirrored. [ISO 7000-0244]
6.020 	AUDIBLE SIGNAL, BELL	Indicates an audible alarm used to warn about the initiation of machine motion with a bell sound. [IEC 60417-5013]

Number Symbol	Name	Description/use [Source]
6.021 	LOCKING	Indicates a control used to lock a function, or to show the locked status. [IEC 60417-5569]
6.022 	UNLOCKING	Indicates a control used to unlock a function, or to show the unlocked status. [IEC 60417-5570]
6.023 	CAUTION/ WARNING/ ATTENTION	Indicates that a function has an associated safety risk. [ISO 7000-0434A] NOTE ISO 7000-0434B may be used.
6.024 	DANGEROUS VOLTAGE	Indicates hazards arising from dangerous voltages associated with the control use, function or state NOTE Refer to other standards such as ISO 3864-1 when using this symbol on warning signs or labels. [IEC 60417-5036]

Annex A
(informative)

Examples of creating symbols using combinations of basic symbols

A.1 General

When an equipment designer has need of a graphical symbol for a meaning that is not available in the standardized graphical symbols of this Technical Report or other standards, one may be constructed to suit the purpose. In many cases, a designer's new symbol can be made by using a combination of elements from this Technical Report. The designer should always bear in mind the information in 3.1.

The basic requirements for design are found in the following International Standards:

IEC 80416-1, *Basic principles for graphical symbols — Part 1: Creation of graphical symbols*

ISO 80416-2, *Basic principles for graphical symbols — Part 2: Form and use of arrows*

A.2 Examples

A.2.1 Possible combination variations

It is possible to build an entire family of graphical symbols using one of the standardized graphical symbols as a basis. Below are examples of several web turn bar variations built upon the standardized TURN BAR, WEB (4.084).

Figure A.1 shows examples of the use of the web turn bar symbol (4.084) in a variety of configurations.

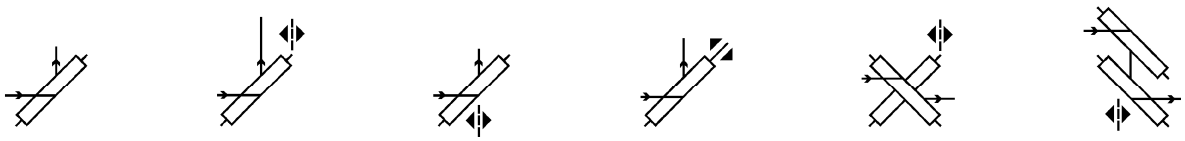


Figure A.1 — Examples of variations using the web turn bar symbol (4.084)

A.2.2 Air and air directions

Because of the extensive use of air in the machinery for the control of substrates, heating, cooling, and drying, the graphical symbols involved with air are very important. In this Technical Report, the basic graphical symbol representing air (0.016) also represents a direction of airflow.

Figures A.2 through A.5 are examples of combinations of graphical symbols that incorporate the basic graphical symbol representing air with other symbols.

Figure A.2 shows the basic graphical symbol for air (0.016) directed at a moving substrate (0.005) to form the symbol for an air knife (4.068).

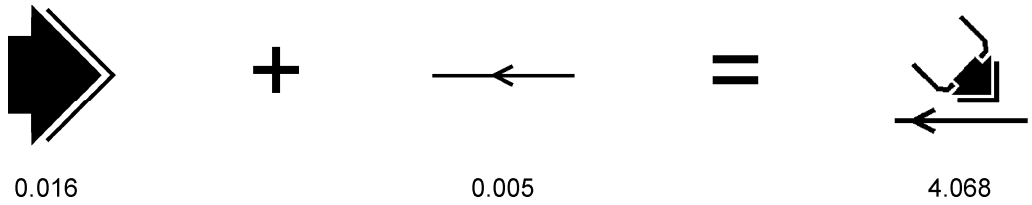


Figure A.2 — Example 1 of combining basic symbols to create a new symbol

Figure A.3 shows the combination of the basic graphical symbol for air (0.016) with the symbol representing pressure (0.027) to form the symbol for air pressure (1.032).

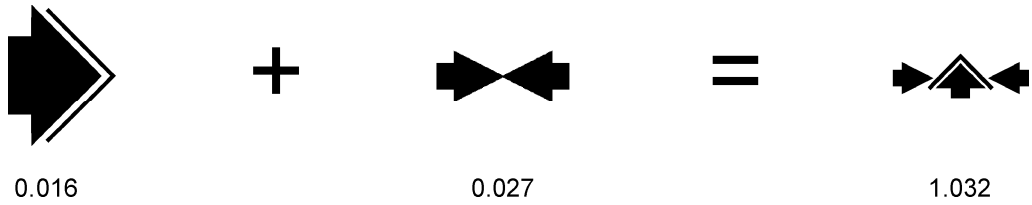


Figure A.3 — Example 2 of combining basic symbols to create a new symbol

Figure A.4 shows the combination of the basic graphical symbol for air (0.016) directed at a web turn bar (4.084) to form the symbol for angle bar air blast (4.067).

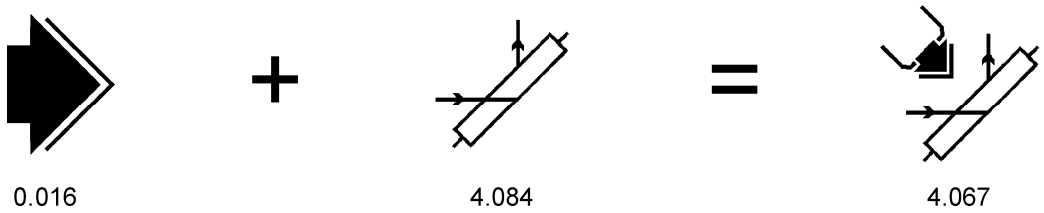


Figure A.4 — Example 3 of combining basic symbols to create a new symbol

Figure A.5 shows the combination of the basic graphical symbol for air (0.016) directed at a modified symbol for pile or stack (4.006) to become air separation (1.031).

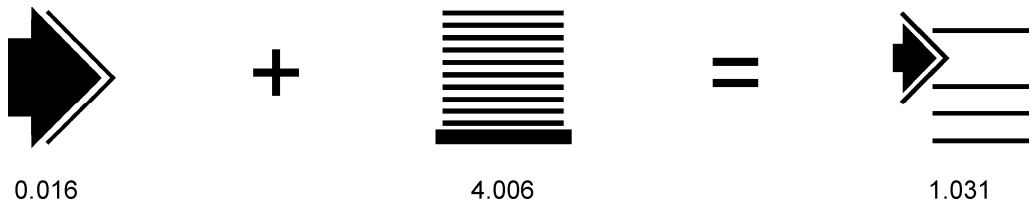
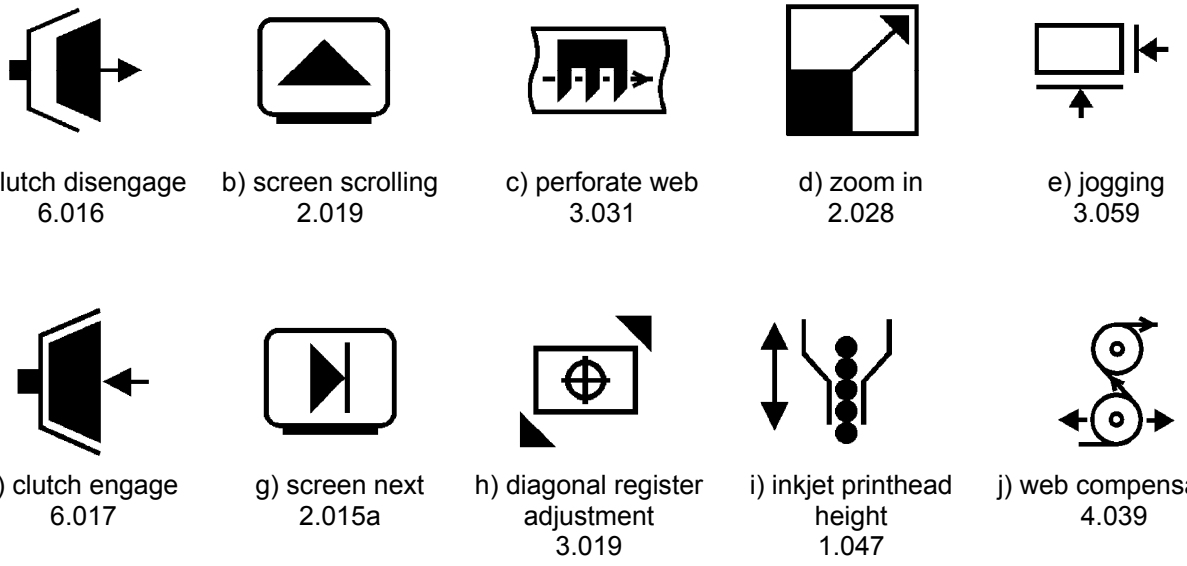


Figure A.5 — Example 4 of combining basic symbols to create a new symbol

A.2.3 Movement arrows

There are many types of movements of product, images on product and screens, and machine components. Examples of the use of arrows to illustrate movements are shown in Figure A.6.



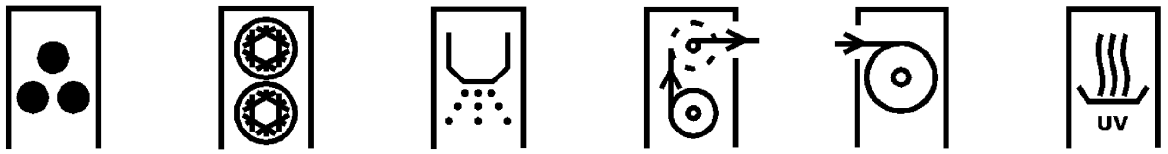
a) clutch disengage 6.016 | b) screen scrolling 2.019 | c) perforate web 3.031 | d) zoom in 2.028 | e) jogging 3.059

f) clutch engage 6.017 | g) screen next 2.015a | h) diagonal register adjustment 3.019 | i) inkjet printhead height 1.047 | j) web compensator 4.039

Figure A.6 — Examples of the use of arrows within symbols to show movement and direction of movement

A.2.4 Units of the printing system

One of the most common types of combination graphical symbols is that used to indicate a unit or module of a machine. Figure A.7 shows examples in which the UNIT symbol (0.001) has been combined with various elements to create graphical symbols for component units and modules of printing machinery. For example, in Figure A.7 a), the INK symbol (0.009) has been combined with the UNIT symbol to form a graphical symbol to indicate an INK UNIT (4.016).



a) inking unit 4.016 | b) chill roll unit 4.028 | c) spraying unit (powder) 4.044 | d) splicing unit 4.034 | e) rewind unit 4.036 | f) UV dryer unit 4.065

Figure A.7 — Examples of combining basic symbols to denote component units and modules of machinery

A.2.5 Optional configuration examples

There will be times when it is possible to create a graphical symbol for a given meaning by combining existing elements in more than one arrangement. For example, in Figure A.8, both symbols contain the JAM (0.043) graphical symbol and the FEEDER UNIT (4.004) graphical symbol.

The designer's choice of representation should be based upon providing the machine operator continuity with the style of graphical symbol depiction. For example, as an alternative to Figure A.8 a) (which is 3.042 of this Technical Report), the choice to use the Figure A.8 b) would be obvious if the designer were also using the format shown in Figure A.9, which incorporates the symbol for MALFUNCTION (1.028).

a) b)

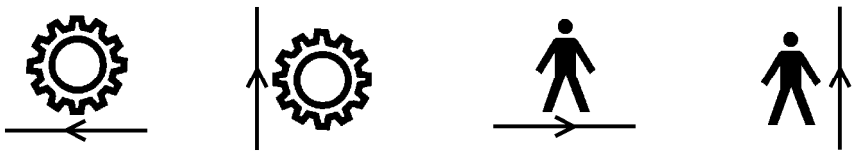
Figure A.8 — Examples of multiple arrangements using the same basic symbols

Figure A.9 — Example of a graphical representation denoting a feeder malfunction

A.2.6 Symbols for operator side and gear side

This Technical Report does not specify symbols to indicate operator side or gear side of the equipment. Instead, the function symbol is generally placed on the appropriate side of the product flow symbol to indicate the side relative to product flow.

However, there are cases in which such symbols may be desirable. In such cases, the symbols shown in Figure A.10 are examples of those that could be used.



a) gear side b) gear side c) operator side d) operator side

Figure A.10 — Sample figures for gear side and operator side

Annex B
(normative)

Submission of graphic symbols for use in printing press and finishing systems for future consideration

B.1 Graphical symbols for use in printing press and finishing systems

Graphical symbols submitted for consideration should meet the requirements of 3.1 and 3.2. Graphical symbols should be submitted in both TIFF and EPS format, along with a hard copy representation. Drafting of the EPS file should be in accordance with IEC 80416-1.

B.2 Accompanying information

In addition to an electronic file of the symbol to be used (prepared in accordance with B.1), all proposals for new graphical symbols for inclusion in a future revision of this Technical Report shall include the following information:

a) type of equipment on which the graphical symbol is expected to be used;

b) name of the graphical symbol (generally a 1-3 word descriptive name that indicates the function of the labeled control);

c) description of the function controlled by the device labeled by the graphical symbol;

d) if the graphical symbol is identical to, or similar to, a graphical symbol contained in another ISO, IEC or national body standard, the number, title and date of publication of the standard, the number and name of the graphical symbol as it appears in that standard, and whether the graphical symbol is identical or similar to the published symbol;

e) whether or not the graphical symbol should be depicted in a specific orientation (e.g. must be used as shown, may be mirrored, may be inverted, requires no specific orientation);

f) recommended group to which this graphical symbol should be added (see Clause 4);

g) contact information for two persons who can be contacted for further information regarding the proposal, including the following information for each contact:

   — name

   — job title

   — company or organization

   — mailing address (including street, mail stop (if applicable), city, state, zip code, country

   — telephone number

   — fax number

   — e-mail address

h) date of the submission

B.3 Where to send proposals

Proposed additions to this Technial Report shall be sent to both of the following:

ISO TC 130 Secretariat
DIN
Burggrafenstrasse 6
D-10787 Berlin, Germany
ndr@din.de

ISO TC 130 WG 5
NPES
1899 Preston White Drive
Reston, Virginia, USA
standards@npes.org

Bibliography

[1] IEC 61310–1:2007, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals*

[2] IEC 60417 (all parts), *Graphical symbols for use on equipment*

[3] ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*

[4] ISO 7000, *Graphical symbols for use on equipment — Index and synopsis*

Alphabetical index of symbols

END OF INDEX

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