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**Federal Wage System
Job Grading Standards**



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**FEDERAL WAGE SYSTEM
JOB GRADING
STANDARD
FOR
BINDERY MACHINE
OPERATING,
4402**



**Workforce Compensation
and Performance Service**



BINDERY MACHINE OPERATING, 4402

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WORK COVERED

This standard covers the nonsupervisory work involved in setting up and operating manual and powered bindery machines such as cutters, collators, binders, drills, folders, stitches, sorters, joggers, and punches in order to assemble and process a variety of paper stock and printed materials, such as maps, charts, books, manuals, pamphlets, circulars, and other publications. The work requires skill in the setup, adjustment, operation, and minor maintenance of bindery machinery and a general knowledge of the quality, use and machinability of various types of paper stock.

WORK NOT COVERED

This standard does not cover the following work:

- Cutting, sewing, and gluing components by hand to bind, rebind, recase, and restore hardback books, manuscripts, musical scores, and other printed materials. (See [Bookbinding, 4441](#).)
- Loading, unloading, and moving paper supplies and equipment by hand or handtruck where such jobs require primarily physical abilities and effort involving little or no skill or prior work experience in the setup and operation of manual or powered bindery machinery. (See Job Grading Standard for [Laboring, 3502](#), or other appropriate occupation.)
- Operating single or multiple station mail inserting equipment, automatic labeling equipment, embossing and addressing equipment, and nonimpact (ink spray) addressing and labeling equipment. (See the classification standard for the [Equipment Operator Series, GS-0350](#).)
- Operating inline sorting and/or finishing equipment when such equipment is operated in conjunction with a small offset press. (See the job grading standard for [Offset Press Operating, 4417](#) and the classification standard for the [Equipment Operator Series, GS-0350](#).)

TITLES

Jobs covered by this standard are to be titled *Bindery Machine Operator*.

GRADE LEVELS

This standard describes four levels of nonsupervisory bindery machine operator work (grades 5, 7, 8, and 9). Depending on the nature of the work performed and the bindery machines operated, any one of these grade levels may represent the highest nonsupervisory level or full performance level of bindery machine operator work found in a particular bindery work situation or organization.

However, this standard does not describe all possible grades at which jobs may be established in this occupation, or in any way limit the authority of agencies to assign work or particular duties

to positions. If jobs differ substantially from the levels of skill, knowledge, and other work requirements of the grades described in this standard, they may warrant grading either above or below these grades, based on the application of sound job grading principles.

HELPER AND INTERMEDIATE JOBS

Under the Federal Wage System, the [Job Grading Standard for Trades Helper Jobs](#) is used to grade helper jobs only in work situations in which the full performance level of nonsupervisory work is grade 9 or higher.

Similarly, the standard for [Intermediate](#) jobs applies to jobs that are a part of a planned program of training and development of skills for advancement to a higher grade when the level of the target job is grade 9 or above. (Grade 9 in this standard is to be used as the "journey level" in applying the Intermediate Job Grading Table.)

NOTES TO USERS

This standard is directly applicable only to work involved in setting up and operating bindery machines. However, many bindery machine operators perform a variety of other work incidental to their machine operating duties. Such additional tasks may include hand work such as collating, counting, jogging, fanning, feeding, punching, folding, slitting, cutting, and padding (i.e., making pads or tablets). Rather than involving the use of manually operated machines, such incidental work operations are accomplished by hand, and through use of special devices and tools such as clamping devices for use in padding, spiral binding tools, and table top cutters and punches.

The additional work also may include other general laboring work such as loading, unloading, moving, or stacking printed materials and paper supplies, as well as janitorial clean up tasks.

Because they are frequently performed as incidental duties by bindery machine operators, such additional duties are mentioned at grades 5 and 7 in this standard to provide a more complete description of typical work situations. However, the grade levels indicated by the standard apply only to the work involved in setting up and operating bindery machines, and do not indicate the grade value or worth of any other kind of work or tasks mentioned in the grade level descriptions. Similarly, the presence or absence of such other duties in a job covered by this standard does not affect the grade level of the bindery machine operating work performed.

Work not involved in setting up and operating bindery machines must be graded by use of other appropriate standards, such as the standards for [Laboring, 3502](#) and [Custodial Working, 3566](#). In accordance with the [procedures for grading mixed jobs under the Federal Wage System](#), a mixed job involving both bindery machine operator work and other duties must be graded in keeping with the duties that involve the highest skill and qualification requirements of the job, and are a regular and recurring part of the job.

Under these provisions, jobs involving grade controlling bindery machine operating work coupled with the performance of other lower graded duties will be graded, titled, and coded as indicated by this standard.

Other jobs may involve the performance of hand work and other laboring tasks (as described above) on a full or nearly full-time basis, and as their primary, grade controlling function. Such jobs usually are properly graded, titled, and coded by reference to the standard for [Laboring, 3502](#) or other appropriate occupation. However, in some work situations in which close and continuing contact with bindery machine work operations established natural lines of career progression into the bindery machine operating occupation, or handwork is assigned for training purposes in preparation for performance of bindery machine operator work, the jobs involved (although graded by reference to [Laboring, 3502](#), or other appropriate standard) may be titled and coded under Bindery Machine Operating, 4402.

4402-5 BINDERY MACHINE OPERATOR, GRADE 5 4402-5

General: Grade 5 bindery machine operators perform standard, repetitive operation of a variety of single function, hand or foot operated machines to staple, drill, punch, and bind paper products.

The work at this level involves the use of various machines that require minimal setup, few adjustments and minor cleaning and lubricating of moving parts in accordance with clearly defined instructions and procedures. For example, the grade 5 operators drill or punch paper materials along standard hole and margin distances using a measuring scale, usually marked on the operating surfaces of the machine, to adjust the hole locations. They adjust the stapling wire and guides of machines to match the thickness and length of materials to be stapled and perform periodic sharpening or replacement of drills and cleaning or oiling of gears, levers, pedals, and other actuating mechanisms of the bindery machines operated.

In addition to operating bindery machines, grade 5 operators may perform a variety of incidental hand tasks such as hand collating, counting, jogging and fanning stock. Such duties may be performed either as separate work assignments or to assist higher grade operators in accomplishing major bindery machine work operations.

The work performed at this level is usually covered by specific, easily understood instructions and clearly defined visual aids. The operators apply a knowledge of the use and minor maintenance requirements of the machines to which they are assigned, and the work assignments are usually competitive in nature. To develop or improve the operators' skills and techniques, grade 5 operators also may receive more difficult assignments, involving the use of powered machines, under the guidance and supervision of a higher graded operator.

Skill and Knowledge: The grade 5 bindery machine operators must have a basic knowledge of the operating procedures for a variety of single function, hand and foot actuated bindery machines such as staplers, punches, drills, and binding-gluing devices. They must be skilled in the safe and efficient operation of such machines and have the ability to make machine adjustments for differences in paper size or thickness, hole or margin distances, paper folds or other work requirements or material characteristics.

The operators, at this level, must have a knowledge of basic arithmetic and fractions and the ability to apply such knowledge while accurately locating materials on machine surfaces. The operators must also have the ability to determine product counts by weight and make precise measurements using rules, gages, or machine guides. The work requires good hand, eye, and foot coordination and close visual attention to safely feed, trip, and operate machines. The operators also must be skilled in the use of such hand-tools as wrenches, screwdrivers, punches, knives, sharpeners, and similar devices to make machine adjustments, trim or finish printed materials, and perform minor servicing of equipment.

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In addition to the operation of bindery machines, grade 5 operators may be required to apply knowledge and skill in performing a variety of incidental hand tasks such as hand collating to sequentially arrange pages or inserts of books or other publications; assembling pages from racks; fanning and jogging stock; wrapping, bundling, or stacking finished materials; folding, slitting, punching, and cutting printed materials or paper stock using table top cutters and punches; inserting ties, fasteners, or bindings by hand, or using simple spiral binding tools with metal or plastic wire; and making pads or tablets using clamping devices (padding press) and applying flexible adhesive by hand. Grade 5 operators also may assist higher grade operators by loading and aligning materials in machine feeders, catching and assembling materials by hand, and monitoring machine operations to prevent or clear paper jams by removing damaged or mis-routed sheets.

Responsibility: The grade 5 operators receive work assignments in the form of detailed oral instructions or written work orders from their supervisor or a designated higher graded worker. On routine repetitive assignments, they independently determine work methods and select the necessary tools. However, machines are usually clearly designated by the nature of the work assigned. Most work processes are covered by clearly defined procedures, instructions, or visual aids, and the work consists of recurring machine operating functions. The grade 5 operators are spot checked during the progress of their work, and the supervisor or a higher graded worker is available to provide assistance for unusual operational difficulties. Completed work is checked for compliance with instructions and established work requirements.

Physical Effort: The grade 5 operators continually lift, carry, or otherwise handle printed materials and paper stock weighing up to 5 kilograms (10 pounds). Occasionally, they may be required to handle items or materials weighing up to 18 kilograms (40 pounds). The work involves standing for prolonged periods while operating or monitoring bindery machines. There is frequent stooping, bending, and reaching to make machine adjustments, remove mis-routed materials, and other operational activities. In some work operations the grade 5 operator is required to maintain a work pace consistent with the speed of operating machinery and the needs of other workers.

Working Conditions: The grade 5 operators normally work in well lighted, heated, and ventilated areas. The operators are occasionally exposed to low and high frequency noise generated by adjacent machine operations and vibrations during peak production periods. The operators are also exposed to the possibility of minor cuts from paper materials and more serious injuries such as broken bones and severe bruises or lacerations from high speed machine operations.

4402-7 BINDERY MACHINE OPERATOR, GRADE 7 4402-7

General: In comparison with the repetitive use of various single function, manually operated bindery machines performed at the grade 5 level, the grade 7 operators set up, adjust and operate a variety of powered machines that usually contain several cutting heads, control surfaces or other attachments. For example, they collect and lay out the materials to be finished, set up and adjust the required devices, and insert materials while operating two or more different types of powered bindery machines such as multiple head drills, punches, staplers, and guillotine cutters with manually operated clamps and back gages to trim, assemble, and package printed material in accordance with customer requirements.

The work at this level involves the use and operation of machines that require more intricate setups and adjustments than described at the grade 5 level. For example, the grade 7 operators precisely adjust mechanically linked stapler, drill, or punch mechanisms to accommodate differing paper weights, sizes, and textures and to conform with specified hole and margin tolerances. They usually adjust the back gages and guide devices while operating cutting or trimming machines. They also adjust suction feed and conveyor mechanisms while assisting higher graded operators during the setup and operation of collating machines.

The grade 7 operators apply a working knowledge of the sizes, kinds, weights, and colors of papers. They also apply a knowledge of the operating procedures and skill in the use of bindery machines that staple, drill, punch, cut, and bind such materials as books, magazines, maps, catalogs, folders, and leaflets. The operators perform minor repairs by removing and replacing worn parts, and perform periodic maintenance such as oiling, greasing, cleaning, adjusting, and sharpening cutting mechanisms in accordance with manufacturers' requirements.

The grade 7 operators use a variety of standard handtools to set up, adjust, and service the machines. In comparison with the repetitive nature of the grade 5 bindery machine work assignments, the grade 7 operators complete work assignments in accordance with customers' job orders or specialized work requests. Occasionally, they provide assistance to, and work under the guidance of, a higher graded operator during the production of duplicated printed materials that require the use of powered-semiautomatic paper cutters, folders, and collating machines. When required, grade 7 operators may, in addition to the operation of powered bindery machines, perform a variety of hand work (as described at grade 5 in this standard).

Skill and Knowledge: The grade 7 bindery machine operators must have a working knowledge of more complicated machinery than required at the grade 5 level. In addition to single function, manual machines, the grade 7 operators must have a knowledge of the applicable operating procedures and skill in operating two or more different types of powered machines containing mechanically linked devices, control surfaces, and attachments such as multiple head drills, staplers or punches that are actuated simultaneously to puncture paper surfaces, and guillotine cutters with manual clamps and back gages.

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The grade 7 operators must be skilled in the setup, adjustment, and operation of the bindery machines used at this level. For example, they must be able to set up and adjust multiple drilling or stapling heads to precise dimensions for hole locations, distances and margins. They must also be able to assist higher graded operators in the setup of folding machines for single or parallel folds by adjusting under close guidance feed rollers, guides, fold plates, conveyors and delivery or stacker controls and the side plates paper guides, grippers suckers, and paper detectors of collating machines. They must be familiar with different paper weights, sizes, kinds, and colors and be able to identify paper conditions such as excessive moisture or curling that frequently require additional machine adjustments.

In addition to a knowledge of basic arithmetic and fractions as defined at the grade 5 level, the grade 7 operators also must be familiar with other shop mathematics and units of measure (for example, conversion of fractions to decimals, metric units) to understand dimensional requirements contained in job orders or sketches and perform more complicated adjustments to mechanically linked parts or assemblies. In addition to the normal handtools described at the grade 5 level, the grade 7 operators also must be able to use specialized handtools, usually furnished by the machine manufacturers, in accordance with specific instructions of higher graded operators, to complete more difficult adjustments to powered machines operated at this level.

Grade 7 operators also may be required to apply skill and knowledge in performing hand work functions (as described at the grade 5 level in this standard.)

Responsibility: The grade 7 bindery machine operators receive work assignments in the form of oral or written work orders and sketches from their supervisor or a designated higher graded worker. In comparison with the repetitive predetermined work methods used at the grade 5 level, the grade 7 operators make more independent judgments and decisions concerning the selection of machines required to do the work and associated drills, dies, punches, and combs. They carry out work assignments in accordance with established shop methods and complete the work using standard techniques and procedures.

In addition to preventing machine jams, the grade 7 operators are responsible for detecting mechanical malfunctions and making prompt adjustments that are frequently complicated by the more numerous components and related working parts found on machines operated at this level. The grade 7 operators complete routine work assignments without spot checks during the progress of the tasks. However, when work assignments involve assisting higher graded operators during major, complex production cycles, their work is subject to spot checks in progress. The grade 7 operators may be responsible for occasionally providing guidance and assistance to lower graded workers during routine assignments.

The supervisor or a designated higher graded operator is usually available to provide technical advice and assistance to grade 7 operators on unusual or very difficult machine problems that require deviations from standard work practices. Completed work is subject to review by the

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supervisor or higher graded operator to insure the work meets established requirements and for compliance with appropriate specifications.

Physical Effort: Physical effort required at this grade is the same as that described at the [grade 5 level](#).

Working Conditions: Working conditions at this grade are the same as those described at the [grade 5 level](#).

4402-8 BINDERY MACHINE OPERATOR, GRADE 8 4402-8

General: In comparison with the standard setup and operation of powered drilling, stapling, and punching machines at the grade 7 level, grade 8 bindery machine operators accomplish bindery machine operations using one or more types of powered bindery machines with more complicated and difficult setup, adjustment and operating requirements, such as single, sheet fed collating machines, single or parallel folding machines, guillotine cutters with powered clamps and back gages, and associated drilling, stapling, or stacking attachments. In addition to the mechanically linked features typically found on machines operated at the grade 7 level, the machines operated at this level also contain a variety of semiautomatic processing devices such as paper feeders, guides, grippers or suckers, detectors, and delivery assemblies that operate sequentially to fold, collate and assemble printed materials.

The machine setups and adjustments performed at this level are standard but more difficult than those performed at the grade 7 level, because in addition to mechanically linked parts and assemblies, the variety of semiautomatic, electromechanical devices that must be adjusted for timing, clearance, and sequence of operations. The machine setups at this level are also complicated by the functional relationships among devices or actuating mechanisms that require precise adjustments of interdependent mechanisms such as paper feeds, conveyors, rollers, pickups, stops, and perforators to prevent paper jams and insure uninterrupted processing of printed materials.

In addition to the knowledge of sizes, kinds, weights, and colors of papers required at the grade 7 level, the grade 8 operators are familiar with variations in paper stock caused by age, storage, or other conditions and the progressive effects of such conditions on machine adjustments and operations during extended production runs. They make compensating adjustments during machine operations for paper quality, thickness, or other conditions in order to prevent excessive wear of machine parts and to maintain uniformity of completed printed materials. The grade 8 operators apply a knowledge of more complicated bindery machine operating procedures than required at the grade 7 level. For example, in addition to the machines involving single actuating and control mechanisms used at the grade 7 level to drill, staple, or punch materials, the grade 8 operators use machines that usually involve several actuating or control mechanisms that can be operated separately during machine setups or in a semiautomatic manner during actual operations. The grade 8 operators also apply a knowledge of the operating characteristics of machines used at this level and determine the most efficient or economical use of machines to complete work assignments.

In addition to the use of standard handtools, the grade 8 operators use a variety of specialized machine tools, usually supplied by equipment manufacturers, to perform periodic machine maintenance in accordance with established schedules and requirements. They make dependent judgments concerning bindery machining methods or techniques and are frequently required to guide and monitor the work of lower graded operators. The grade 8 operators also may be required to occasionally assist higher graded operators in setting up, monitoring adjusting or operating work stations or machines during peak production runs requiring the use of more

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complex or unusually complicated powered bindery machines or machine arrangements such as multiple station collators, multiple function adhesive (perfect) binders, or multiple parallel and right angle folding machines in tandem.

Skill and Knowledge: In addition to drills, punches, staplers, and similar machines operated at the grade 7 level, the grade 8 bindery machine operators also must have a knowledge of the operating procedures and functional characteristics of one or more types of powered bindery machines which are more complicated than those at the grade 7 level, such as single sheet-fed collators with side or saddle stitching attachments; single or parallel folding machines with stacking, scoring, or other attachments; guillotine cutters with powered clamps and back gages and accessories such as air tables, joggers, or dial indicators; and other machines of similar complexity. The grade 8 operators may also be required to be familiar with the operating procedures of at least one of the more complex powered, multiple station bindery machines and be able to operate such machines under the close guidance of a higher graded operator.

In comparison with the grade 7 level, grade 8 operators must be skilled in standard but more complicated setups, adjustments, and machine operations such as setting up folding machines for single or parallel folds by adjusting feed rollers, guides, fold plates, conveyors and stacker or delivery assemblies for correct pressures, speeds, depths, and related parameters; setting up collating machines involving similar adjustments to side plates, paper guides, grippers or suckers and paper detectors; and/or setting up and operating guillotine cutting machines with powered clamps, back gages, and other devices, determining the number of cuts required to accomplish the work in an efficient manner with minimum paper loss and without damage to printed materials or paper stock.

In addition to setting up and adjusting the above machines, the grade 8 operators must understand the functional relationships among machine parts and assemblies such as feeders, conveyors, suckers and stitches, and refine machine adjustments to accomplish accurate sequencing, timing, and speed of the related actuating mechanisms. In addition to detecting irregularities and preventing or clearing paper jams during machine runs, the grade 8 operators must be sufficiently familiar with paper products and the variations in quality and condition to be able to anticipate their impact on machine operations and periodically adjust machines to accommodate irregularities or variations and accomplish continuous runs.

In comparison with the mathematical skill and knowledge required at the grade 7 level, grade 8 operators must, because of the greater complexity of machine setups and operation at this level, apply such knowledge in making a greater number of adjustments and machine settings. They must be able to set mechanical, pneumatic, and machine controls, and to adjust the mechanical pressure, airflow, and other forces required to feed, lift, fold, convey, and stack single sheets or paper signatures, and to maintain accurate sequencing, timing, and speed of machine parts during the processing of printed materials.

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The grade 8 operators must also be able to use the full range of standard and specialized tools and devices to adjust and maintain the functional accuracy and operating condition of the bindery machines used at this level.

Responsibility: The grade 8 bindery machine operators receive work assignments in the form of verbal or written work orders from their supervisor or a designated higher graded operator which indicate the number and sequence of machine operations required to complete the work. Occasionally they may consult with customer representatives to gain clarification of bindery machining requirements for printed materials or raw paper stock. They also are responsible for maintaining dimensional accuracy in accordance with instructions provided and through the use of machine setups provided by a higher graded operator on more complicated bindery operations.

In comparison with the grade 7 level, grade 8 operators are responsible for detecting malfunctions, making required machine setups and adjustments and assuring the proper and safe operation of the more complicated machines used at this level. They must be continually aware of the functional and dimensional accuracy of machine parts and assemblies during machine operations, and determine when machines must be stopped to make adjustments.

The work may be checked during progress. The supervisor or a designated higher graded operator usually is available for advice or assistance on unusual work problems encountered and checks completed work for compliance with instructions provided.

Physical Effort: Physical effort required at this grade is the same as that described at the [grade 5 level](#).

Working Conditions: Working conditions at this grade are the same as those described at the [grade 5 level](#).

4402-9 BINDERY MACHINE OPERATOR, GRADE 9 4402-9

General: In comparison with the semiautomatic, multiple function machines used at the grade 8 level, the grade 9 operators use one or more powered, semi- and fully-automatic bindery machines that usually contain a combination of multiple function and multiple station capabilities and can be electromechanically combined with other equipment and devices to produce a complete bindery and finishing unit that processes printed sheets into final books, catalogs, manuals, directories, magazines, or other completed products. For example, the grade 9 operators set up, adjust and operate automatic adhesive binding machines (perfect binders) that contain numerous interrelated process stations that are fed collated sheets or signatures and perform such functions as vibrating, milling, roughening, gluing, covering and delivering or stacking completed books, magazines, or catalogs. Similarly, the grade 9 operators also may combine a number of separate semiautomatic folding, collating, stapling, stacking, and gluing machines; and with the assistance of lower graded operators, complete bindery and finishing assignments comparable to the processes performed by automatic machines.

The work at this level is more difficult than that performed at the grade 8 level, because in addition to using single cutting, collating, folding, or other machines that require precise adjustment of the interrelated parts or devices, the grade 9 operators perform setups that involve joining several separate machines or synchronizing multiple work stations of a single machine. For example, the grade 9 operators hookup several folding units and attachments to perform major folding jobs involving parallel, accordion, right angle and gate folds with side or saddle stitching and cutting attachments, or set up multiple feed automatic collating machines with numerous feed or process stations and stitching attachments. Such setups require precise adjustments of combined machines or multiple work stations and more interrelated adjustments for the sequencing, timing and movement of materials between machines or stations than performed at the grade 8 level.

In addition to a knowledge of paper weights, colors, and stock variations required at the grade 8 level, the grade 9 operators apply a comprehensive knowledge of the machinability of various paper stock in order to determine the appropriate bindery machines required to produce printed materials ranging from books and pamphlets to detailed maps and charts. In addition to a knowledge of the operating procedures required at the grade 8 level, the grade 9 operators apply a thorough knowledge of the capabilities and limitations of machines used at this level to accomplish unusual setups or machine combinations to produce unique or one-of-a-kind printed materials at customer request.

In addition to replacing worn parts such as suction cups, air hoses, or worn belts, and performing periodic operator maintenance using standard and specialized handtools, the grade 9 operators frequently remove and substitute machine parts to accommodate unusual paper stock or to facilitate rapid changes in machine setups or operating speed. They make independent judgments concerning the work sequence, selection and use of machines, and the use of tools and attachments. They are frequently required to instruct and guide lower level operators assigned to monitor the operation of machines or work stations during major production runs.

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Skill and Knowledge: The grade 9 operators must have a thorough knowledge of more complex bindery machines than required at the grade 8 level. In addition to semiautomatic single or parallel folders and single sheet collators, the grade 9 operators must have a knowledge of the set up and operating requirements and procedures, capabilities and limitations of one or more bindery machines such as fully automatic binding machines (perfect binders), multiple station collators and multiple folding units, either individually or combined to perform the full range of standard and specialized folds of printed materials. In some work situations, they must have a knowledge of the functional relationships and mechanisms required to combine several separate machines and attachments into a complete bindery unit e.g., folding, collating, stitching, gluing, etc.

In addition to setting up, adjusting and operating machines, the grade 9 operators, frequently working from rough sketches or hand folded samples, must be able to designate the most efficient operations required to complete the work and determine the number and type of machines required to provide a continuous flow of finished printed materials. Machine setups are more difficult at this level because the multiple work stations or combined machines frequently require simultaneous adjustments of interrelated machine surfaces and dimensions to ensure a continuous flow of materials during finishing operations. For example, in addition to the normal adjustment of rollers, guides, and detectors, the grade 9 operators must adjust machine feeders, conveyors, and gates for speed, timing and synchronization within and among machines. They must align transport surfaces and maintain angular relationships among machines, and be able to combine separate machines as required to perform customized or complicated bindery operations.

At this level the operators must have a thorough knowledge of the quality and machining requirements of various coated and uncoated types of paper stock. They must be able to set up and adjust machines for finishing operations and refine such adjustments for the quality of the papers used and to prevent machining impressions on the printed materials. In addition to the mathematical skills described at the grade 8 level, the grade 9 operators must be able to calculate distances, clearances and fits in combining machines. They must also be able to calculate the most economical number of cutting operations required to provide the specified number of standard and special sheet sizes from raw paper stock, and estimate the number of machine runs required to assemble large quantities of printed materials.

Responsibility: The grade 9 bindery machine operators receive work assignments from the supervisor in the form of work orders or verbal discussions. They frequently work from rough sketches or customer supplied samples. In comparison with the work performed by operators at the grade 8 level, work assignments at the grade 9 level require substantially more independent judgments and decisions regarding the methods and procedures for completing assignments that often involve combining bindery machines and extending the use of standard machines to accomplish unique or one-time customer finishing requirements.

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The grade 9 operators independently plan the work sequence and determine the machines and additional operators required to complete work assignments. They are also responsible for applying sound judgments and decisions that contribute toward efficient utilization of available machines. The grade 9 operators must keep abreast of major developments and improvements in bindery machines, and provide operational guidance and assistance to lower graded operators.

The supervisor is available for consultation on unusually difficult problems and completed work is subject to spot check for compliance with accepted work practices.

Physical Effort: Physical effort required at this grade is the same as that described at the [grade 5 level](#).

Working Conditions: Working conditions at this grade are the same as those described at the [grade 5 level](#).