



TORO Analysis of Bindery Workers to Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

INPUT SECTION:

Transfer	Title	O*NET	Filters		
From Title:	Bindery Workers	51-5011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-4031.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

OUTPUT SECTION:

Grand TORQ:



88

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	90	Level	89	Level	86

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Visualization	49	18	66	Troubleshooting	58	10	72	No Knowledge Upgrades Required!			
Finger Dexterity	42	8	53	Operation Monitoring	58	6	72				
Multilimb Coordination	38	7	53	Active Listening	52	5	70				
Information Ordering	45	4	68								
Manual Dexterity	46	2	68								
Near Vision	44	2	63								

LEVEL and IMPT (IMPORTANCE) refer to the Target Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic. GAP refers to level difference between Bindery Workers and Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Importance
Control Precision	52	50	75
Information Ordering	41	45	68
Manual Dexterity	44	46	68



Description	Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Importance
Visualization	31	49	66
Near Vision	42	44	63
Written Comprehension	38	37	58
Arm-Hand Steadiness	45	44	58
Finger Dexterity	34	42	53
Multilimb Coordination	31	38	53
Problem Sensitivity	34	34	52
Static Strength	42	40	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Importance
Quality Control Analysis	63	63	79
Operation Monitoring	52	58	72
Troubleshooting	48	58	72
Operation and Control	62	59	71
Active Listening	47	52	70
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Importance

Experience & Education Comparison			
Related Work Experience Comparison		Required Education Level Comparison	
Description	Bindery Workers	Description	Bindery Workers
10+ years	0%	Doctoral	0%
8-10 years	0%	Professional Degree	0%
6-8 years	0%	Post-Masters Cert	0%
4-6 years	2%	Master's Degree	0%
2-4 years	7%	Post-Bachelor Cert	0%
1-2 years	24%	Bachelors	0%
6-12 months	16%	AA or Equiv	0%
3-6 months	0%	Some College	0%
1-3 months	0%	Post-Secondary Certificate	1%
0-1 month	3%	High School Diploma or GED	79%
None	44%	No HSD or GED	18%



Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
Most Common Educational/Training Requirement:	
Short-term on-the-job training	Moderate-term on-the-job training
Job Zone Comparison	
<p>2 - Job Zone Two: Some Preparation Needed</p> <p>Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.</p> <p>These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.</p> <p>Employees in these occupations need anywhere from a few months to one year of working with experienced employees.</p>	<p>2 - Job Zone Two: Some Preparation Needed</p> <p>Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.</p> <p>These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.</p> <p>Employees in these occupations need anywhere from a few months to one year of working with experienced employees.</p>

Tasks

Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
<p style="text-align: center; background-color: #eee; padding: 2px;">Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials. Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. 	<p style="text-align: center; background-color: #eee; padding: 2px;">Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
<p style="text-align: center; background-color: #eee; padding: 2px;">Specific Tasks</p> <p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> Clean work areas, and maintain equipment and work stations, using hand tools. Crease or compress signatures before affixing covers; then place paper jackets on finished books. Examine stitched, collated, bound, and unbound product samples for defects such as imperfect bindings, ink spots, torn or loose pages, and loose and uncut 	<p style="text-align: center; background-color: #eee; padding: 2px;">Specific Tasks</p> <p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> Adjust ram strokes of presses to specified lengths, using hand tools. Clean and lubricate machines. Examine completed workpieces for defects such as chipped edges and marred surfaces, and sort defective pieces according to types of flaws. Grind out burrs and sharp edges, using



threads.

- Feed books and related articles such as periodicals and pamphlets into binding machines, following specifications.
- Fill glue reservoirs, turn switches to activate heating elements, and adjust flow of glue and speed of conveyors.
- Fill machine paper feeds.
- Install and adjust bindery machine devices, such as knives, guides, rollers, rounding forms, creasing rams, and clamps, in order to accommodate sheets, signatures, or books of specified sizes, using hand tools.
- Lubricate and clean machine parts, and make minor repairs in order to keep machines in working condition.
- Maintain records of daily production, using specified forms.
- Mount and secure rolls or reels of wire, cloth, paper, or other material onto machine spindles.
- Move controls to adjust and activate bindery machines.
- Observe and monitor machine operations to detect malfunctions and to determine whether adjustments are needed.
- Open machines and remove and replace damaged covers and books, using hand tools.
- Punch holes in paper sheets, and fasten sheets, signatures, or other material, using hand or machine punches or staplers.
- Read work orders to determine setup specifications and instructions.
- Record production sheet information such as the amount of time spent on specific tasks.
- Remove broken wire pieces from machines, and load machines with new spools of wire.
- Remove printed material or finished products from machines or conveyors, wrap products in plastic, and stack them on pallets or skids or pack them in boxes.
- Secure reels of stitching wire on spindles, and thread wire through feeding, cutting, stitch forming, and driving mechanisms to load stitcher heads for stapling.
- Set machine controls to adjust lengths and thicknesses of folds, stitches, or cuts, to synchronize speed of feeding devices and stitching, and to adjust tension on creasing blades and folding rollers.
- Set up, or set up and operate, machines that perform binding operations such as pressing, folding, and trimming on books and related articles.
- Start machines and make trial runs to verify accuracy of machine setups.
- Stitch or glue endpapers, bindings, and signatures to attach them.

portable grinders, speed lathes, and polishing jacks.

- Hand-form, cut, or finish workpieces, using tools such as table saws, hand sledges, and anvils.
- Hone cutters with oilstones to remove nicks.
- Install, align, and lock specified punches, dies, cutting blades or other fixtures in rams or beds of machines, using gauges, templates, feelers, shims, and hand tools.
- Load workpieces, plastic material, or chemical solutions into machines.
- Lubricate workpieces with oil.
- Mark identifying data on workpieces.
- Measure completed workpieces to verify conformance to specifications, using micrometers, gauges, calipers, templates, or rulers.
- Place workpieces on cutting tables, manually or using hoists, cranes, or sledges.
- Plan sequences of operations, applying knowledge of physical properties of workpiece materials.
- Position guides, stops, holding blocks, or other fixtures to secure and direct workpieces, using hand tools and measuring devices.
- Position, align, and secure workpieces against fixtures or stops on machine beds or on dies.
- Preheat workpieces, using heating furnaces or hand torches.
- Read work orders and production schedules to determine specifications, such as materials to be used, locations of cutting lines, and dimensions and tolerances.
- Remove housings, feed tubes, tool holders, and other accessories in order to replace worn or broken parts such as springs and bushings.
- Replace defective blades or wheels, using hand tools.
- Scribe reference lines on workpieces as guides for cutting operations, according to blueprints, templates, sample parts, or specifications.
- Select, clean, and install spacers, rubber sleeves, and cutters on arbors.
- Set blade tensions, heights, and angles to perform prescribed cuts, using wrenches.
- Set stops on machine beds, change dies, and adjust components, such as rams or power presses, when making multiple or successive passes.
- Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.
- Sharpen dulled blades, using bench grinders, abrasive wheels, or lathes.



- Stack supplies such as signatures, books, or paper.
- Stop machines, cut threads that connect books, and stack separated books.
- Thread spirals in perforated holes of items to be bound, using spindles or rollers.
- Train workers to set up, operate, and use automatic bindery machines.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- clean rooms or work areas
- collate printed materials
- demonstrate or explain assembly or use of equipment
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate collating machine
- operate printing equipment/machinery
- package goods for shipment or storage
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- use hand or power tools
- wrap products

- Start machines, monitor their operations, and record operational data.
- Test and adjust machine speeds and actions, according to product specifications, and using gauges and hand tools.
- Thread ends of metal coils from reels through slitters, and secure ends on recoilers.
- Turn controls to set cutting speeds, feed rates, and table angles for specified operations.
- Turn valves to start flow of coolant against cutting areas and to start airflow that blows cuttings away from kerfs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain or repair industrial or related equipment/machinery
- measure, weigh, or count products or materials
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- plan or organize work
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of metals
- set up computer numerical control machines
- set up production equipment or machinery
- understand machine setup instructions
- understand technical operating, service or repair manuals
- use hand or power tools



- use precision measuring tools or equipment

Labor Market Comparison

Description	Bindery Workers	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Difference
Median Wage	\$ 26,130	\$ 27,500	\$ 1,370
10th Percentile Wage	\$ 17,110	\$ 17,200	\$ 90
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 31,490	\$ 31,510	\$ 20
90th Percentile Wage	\$ 36,420	\$ 37,720	\$ 1,300
Mean Wage	\$ 26,320	\$ 27,250	\$ 930
Total Employment - 2007	350	450	100
Employment Base - 2006	366	461	95
Projected Employment - 2016	293	395	102
Projected Job Growth - 2006-2016	-19.9 %	-14.3 %	5.6 %
Projected Annual Openings - 2006-2016	5	11	6

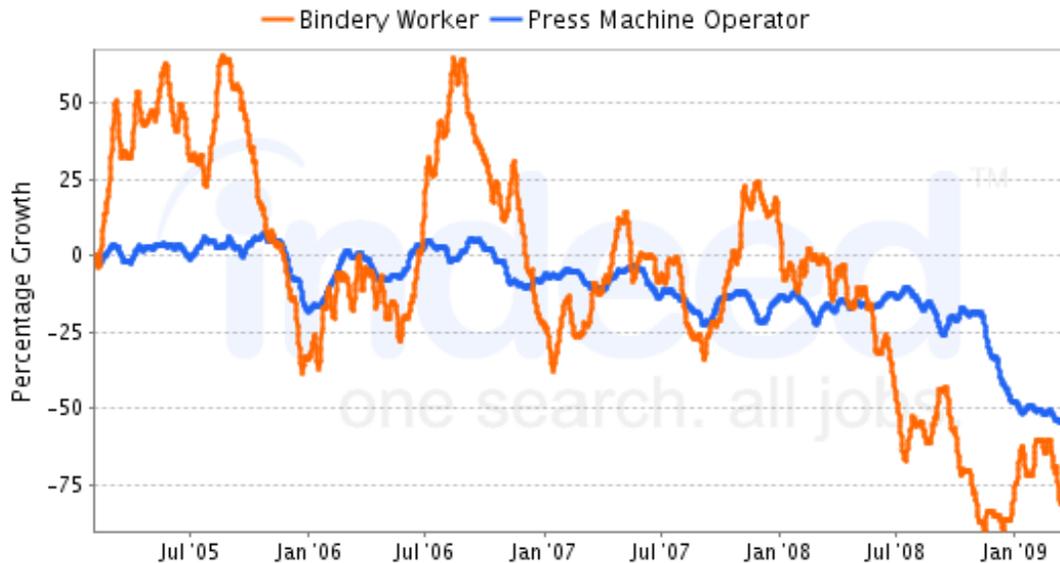
National Job Posting Trends

Trend for Bindery Workers

Trend for Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic



Job Trends from Indeed.com



Data from [Indeed](http://Indeed.com)

Recommended Programs

Machinist/Machine Technologist

Machine Tool Technology/Machinist. A program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Southern Maine Community College	2 Fort Road	South Portland	www.smccME.edu

Machine Shop Assistant

Machine Shop Technology/Assistant. A program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.

No schools available for the program

Sheet Metal Worker

Sheet Metal Technology/Sheetworking. A program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu



Maine Statewide Promotion Opportunities for Bindery Workers

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-5011.00	Bindery Workers	100	2	350	\$26,130.00	\$0.00	-20%	5
51-4122.00	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	88	2	120	\$36,960.00	\$10,830.00	2%	3
51-4031.00	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	88	2	450	\$27,500.00	\$1,370.00	-14%	11
51-5023.00	Printing Machine Operators	87	2	790	\$29,710.00	\$3,580.00	-3%	18
51-4193.00	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	87	2	120	\$32,160.00	\$6,030.00	16%	5
45-4022.00	Logging Equipment Operators	81	1	1,390	\$29,280.00	\$3,150.00	4%	46
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	81	2	910	\$38,230.00	\$12,100.00	-26%	23
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	81	2	710	\$31,350.00	\$5,220.00	-23%	12
51-9191.00	Cementing and Gluing Machine Operators and Tenders	81	1	80	\$27,620.00	\$1,490.00	-15%	2
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	80	2	260	\$28,330.00	\$2,200.00	-7%	5
51-2031.00	Engine and Other Machine Assemblers	79	3	20	\$29,010.00	\$2,880.00	-45%	1



51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	79	3	110	\$34,350.00	\$8,220.00	-9%	2
51-9195.07	Molding and Casting Workers	79	2	0	\$26,980.00	\$850.00	7%	20
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$6,850.00	-18%	9
51-9071.06	Gem and Diamond Workers	79	2	220	\$32,520.00	\$6,390.00	7%	7

Top Industries for Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	10.95%	29,744	36,424	22.46%
Motor vehicle parts manufacturing	336300	10.08%	27,394	19,628	-28.35%
Architectural and structural metals manufacturing	332300	8.80%	23,910	22,983	-3.88%
Forging and stamping	332100	6.81%	18,517	13,040	-29.57%
Plastics product manufacturing	326100	5.31%	14,440	13,775	-4.60%
Other fabricated metal product manufacturing	332900	3.61%	9,822	7,833	-20.26%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	2.93%	7,972	6,600	-17.21%
Metalworking machinery manufacturing	333500	2.35%	6,374	4,697	-26.32%
Other general purpose machinery manufacturing	333900	1.82%	4,945	4,018	-18.76%
Boiler, tank, and shipping container manufacturing	332400	1.82%	4,936	4,003	-18.90%
Machine shops	332710	1.79%	4,876	3,630	-25.55%
Steel product manufacturing from purchased steel	331200	1.79%	4,869	3,878	-20.35%
Spring and wire product manufacturing	332600	1.76%	4,776	3,182	-33.37%
Agriculture, construction, and mining machinery manufacturing	333100	1.69%	4,593	3,859	-15.97%
Metal and mineral (except petroleum) merchant wholesalers	423500	1.59%	4,325	4,275	-1.16%

Top Industries for Bindery Workers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
----------	-------	---------------	------------	----------------------	----------



Printing and related support activities	323100	75.67%	49,078	34,998	-28.69%
Employment services	561300	4.66%	3,020	3,822	26.56%
Converted paper product manufacturing	322200	2.30%	1,489	1,125	-24.47%
Advertising and related services	541800	1.69%	1,095	1,112	1.55%
Newspaper publishers	511110	1.53%	993	765	-22.90%
Self-employed workers, primary job	000601	1.32%	853	818	-4.12%
Specialized design services	541400	0.81%	528	636	20.43%
Colleges, universities, and professional schools, public and private	611300	0.42%	271	273	0.69%
Federal government, excluding postal service	919999	0.36%	234	199	-14.92%
Paper and paper product merchant wholesalers	424100	0.33%	214	206	-3.85%
Other support services	561900	0.29%	189	233	23.30%
Management of companies and enterprises	551100	0.17%	109	113	3.75%
State government, excluding education and hospitals	929200	0.15%	100	88	-11.68%
Elementary and secondary schools, public and private	611100	0.11%	71	68	-5.16%
Industrial machinery manufacturing	333200	0.11%	70	52	-26.26%