



TORQ Analysis of Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders to Sewing Machine Operators

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Sewing Machine Operators	51-6031.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:					90						
Ability TORQ		Skills TORQ		Knowledge TORQ							
Level		94	Level		89						
Level			Level		88						
Gaps To Narrow if Possible		Upgrade These Skills		Knowledge to Add							
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
No Critical Gaps Recorded!				No Skills Upgrade Required!				No Knowledge Upgrades Required!			

LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Sewing Machine Operators.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance
Arm-Hand Steadiness	59	51	65
Manual Dexterity	48	42	62
Control Precision	50	42	62
Rate Control	42	39	59
Information Ordering	37	37	56
Finger Dexterity	53	44	56
Near Vision	50	48	56
Visual Color Discrimination	50	46	56
Problem Sensitivity	46	39	53
Multilimb Coordination	44	37	53
Deductive Reasoning	37	35	50



Visualization	44	39	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators	Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	11%	8%	Master's Degree	0%	0%
2-4 years	0%	13%	Post-Bachelor Cert	0%	0%
1-2 years	5%	9%	Bachelors	0%	2%
6-12 months	2%	11%	AA or Equiv	0%	0%
3-6 months	0%	0%	Some College	0%	8%
1-3 months	19%	5%	Post-Secondary Certificate	1%	2%
0-1 month	10%	0%	High School Diploma or GED	78%	12%
None	50%	51%	No HSD or GED	19%	73%
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders			Sewing Machine Operators		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
3 - Job Zone Three: Medium Preparation Needed			1 - Job Zone One: Little or No Preparation Needed		
Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.			No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.		
Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.			These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.		
Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.			Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.		

Tasks



Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Core Tasks

Generalized Work Activities:

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine settings such as speed or tension to produce products that meet specifications.
- Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns.
- Inspect machinery to determine whether repairs are needed.
- Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed.
- Install, level, and align machine components such as gears, chains, guides, dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.

Sewing Machine Operators

Core Tasks

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Attach buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders.
- Attach tape, trim, appliques, or elastic to specified garments or garment parts, according to item specifications.
- Baste edges of material to align and temporarily secure parts for final assembly.
- Cut excess material or thread from finished products.
- Cut materials according to specifications, using blades, scissors, or electric knives.
- Draw markings or pin appliques on fabric to obtain variations in design.
- Examine and measure finished articles to verify conformance to standards, using rulers.
- Fold or stretch edges or lengths of items while sewing, in order to facilitate forming specified sections.
- Guide garments or garment parts under machine needles and presser feet to sew parts together.
- Inspect garments, and examine repair tags and markings on garments to locate defects or damage, and mark errors as necessary.
- Match cloth pieces in correct sequences prior to sewing them, and verify that dye lots and patterns match.
- Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
- Mount attachments, such as needles, cutting blades, or pattern plates, and adjust



- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.
- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.
- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications

setting spools, or pattern plates, and adjust machine guides according to specifications.

- Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machines.
- Perform specialized or automatic sewing machine functions, such as buttonhole making or tacking.
- Place spools of thread, cord, or other materials on spindles, insert bobbins, and thread ends through machine guides and components.
- Position and mark patterns on materials to prepare for sewing.
- Position items under needles, using marks on machines, clamps, templates, or cloth as guides.
- Position material or articles in clamps, templates, or hoop frames prior to automatic operation of machines.
- Record quantities of materials processed.
- Remove holding devices and finished items from machines.
- Repair or alter items by adding replacement parts or missing stitches.
- Select supplies such as fasteners and thread, according to job requirements.
- Start and operate or tend machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles.
- Tape or twist together thread or cord to repair breaks.
- Turn knobs, screws, and dials to adjust settings of machines, according to garment styles and equipment performance.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- cut or trim fabric or leather
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- operate sewing machine
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- repair tears or defects in fabrics, garments,



- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

repair tears or defects in fabrics, garments, or leather products

- sew by hand
- use hand or power tools
- use portable electric fabric cutter

Labor Market Comparison

Maine Department of Labor.

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Sewing Machine Operators	Difference
Median Wage	\$ 25,840	\$ 22,440	\$(3,400)
10th Percentile Wage	\$ 17,060	\$ 16,350	\$(710)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 29,370	\$ 27,200	\$(2,170)
90th Percentile Wage	\$ 31,830	\$ 31,710	\$(120)
Mean Wage	\$ 25,210	\$ 23,030	\$(2,180)
Total Employment - 2584	290	1,080	790
Employment Base - 2006	N/A	1,077	N/A
Projected Employment - 2593	N/A	990	N/A
Projected Job Growth - 2006-2593	0.0 %	-8.1 %	-8.1 %
Projected Annual Openings - 2006-2593	0	10	10
Special			

Special Occupations:

National Job Posting Trends

Trend for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Sewing Machine Operators



Programs

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6064.00	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	100	3	290	\$25,840.00	\$0.00	0%	0	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	85	2	260	\$28,330.00	\$2,490.00	-7%	5	



51-9191.00	Cementing and Gluing Machine Operators and Tenders	85	1	80	\$27,620.00	\$1,780.00	-15%	2
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	84	2	910	\$38,230.00	\$12,390.00	-26%	23
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	82	2	710	\$31,350.00	\$5,510.00	-23%	12
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	82	2	850	\$38,860.00	\$13,020.00	-26%	19
51-2031.00	Engine and Other Machine Assemblers	81	3	20	\$29,010.00	\$3,170.00	-45%	1
51-5021.00	Job Printers	81	3	140	\$31,890.00	\$6,050.00	-10%	2
51-5023.00	Printing Machine Operators	80	2	790	\$29,710.00	\$3,870.00	-3%	18
53-7063.00	Machine Feeders and Offbearers	80	1	480	\$26,820.00	\$980.00	-22%	9
51-3091.00	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	79	2	90	\$27,600.00	\$1,760.00	0%	4
51-4194.00	Tool Grinders, Filers, and Sharpeners	79	2	100	\$29,460.00	\$3,620.00	-20%	2



51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$7,140.00	-18%	9	
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$12,190.00	7%	49	★
51-5011.00	Bindery Workers	79	2	350	\$26,130.00	\$290.00	-20%	5	

Special Occupations:

Top Industries for Sewing Machine Operators

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Cut and sew apparel manufacturing	315200	37.46%	87,218	36,829	-57.77%
Other textile product mills	314900	8.50%	19,797	17,782	-10.18%
Textile furnishings mills	314100	7.91%	18,422	16,690	-9.40%
Self-employed workers, primary job	000601	7.29%	16,967	18,076	6.54%
Household and institutional furniture manufacturing	337120	6.35%	14,794	12,383	-16.30%
Apparel accessories and other apparel manufacturing	315900	2.75%	6,400	4,026	-37.09%
Apparel knitting mills	315100	2.14%	4,987	2,805	-43.75%
Medical equipment and supplies manufacturing	339100	2.01%	4,674	4,781	2.29%
Other furniture related product manufacturing	337900	1.88%	4,384	4,577	4.40%
Printing and related support activities	323100	1.73%	4,029	3,192	-20.77%
Motor vehicle parts manufacturing	336300	1.48%	3,443	2,741	-20.39%
Fabric mills	313200	1.36%	3,162	2,233	-29.38%
Drycleaning and laundry services	812300	1.35%	3,133	3,133	0.01%
Clothing stores	448100	1.31%	3,053	2,973	-2.63%
Footwear manufacturing	316200	0.92%	2,134	1,000	-53.16%

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%



Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%
Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%



TORQ Analysis of Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders to Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					85
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	91	Level	84	Level	79

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Information Ordering	46	9	56	Active Listening	50	8	72	No Knowledge Upgrades Required!			
Visualization	53	9	53	Operation and Control	74	4	76				
Auditory Attention	50	6	56	Troubleshooting	53	4	72				
Rate Control	46	4	72	Equipment Maintenance	58	3	69				
Static Strength	46	5	53								
Perceptual Speed	50	4	65								
Oral Comprehension	46	5	50								
Oral Expression	44	5	50								
Selective Attention	46	4	56								
Speech Recognition	41	4	56								
Deductive Reasoning	41	4	50								
Far Vision	46	2	62								
Multilimb Coordination	46	2	59								
Speech Clarity	37	2	53								
Depth Perception	42	1	53								



LEVEL and IMPT (IMPORTANCE) refer to the Target Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders. GAP refers to level difference between Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Rate Control	42	46	72
Perceptual Speed	46	50	65
Reaction Time	53	51	65
Arm-Hand Steadiness	59	44	62
Far Vision	44	46	62
Manual Dexterity	48	46	59
Finger Dexterity	53	48	59
Control Precision	50	46	59
Multilimb Coordination	44	46	59
Near Vision	50	46	59
Problem Sensitivity	46	42	56
Information Ordering	37	46	56
Selective Attention	42	46	56
Hearing Sensitivity	44	42	56
Auditory Attention	44	50	56
Speech Recognition	37	41	56
Visualization	44	53	53
Static Strength	41	46	53
Visual Color Discrimination	50	37	53
Depth Perception	41	42	53
Speech Clarity	35	37	53
Oral Comprehension	41	46	50
Oral Expression	39	44	50
Deductive Reasoning	37	41	50
Category Flexibility	41	37	50
Trunk Strength	44	42	50
Stamina	35	34	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Operation and Control	70	74	76
Active Listening	42	50	72
Troubleshooting	49	53	72



Equipment Maintenance	55	58	69
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
10+ years	0%	4%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
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2-4 years	0%	4%	Post-Bachelor Cert	0%	0%
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6-12 months	2%	44%	AA or Equiv	0%	0%
3-6 months	0%	0%	Some College	0%	0%
1-3 months	19%	0%	Post-Secondary Certificate	1%	9%
0-1 month	10%	0%	High School Diploma or GED	78%	77%
None	50%	18%	No HSD or GED	19%	13%
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders			Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
3 - Job Zone Three: Medium Preparation Needed			2 - Job Zone Two: Some Preparation Needed		
<p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p> <p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p> <p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</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	
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
Core Tasks	Core Tasks



Generalized Work Activities:

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine settings such as speed or tension to produce products that meet specifications.
- Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns.
- Inspect machinery to determine whether repairs are needed.
- Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed.
- Install, level, and align machine components such as gears, chains, guides, dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.
- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.

Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Activate machines to shape or form products such as candy bars, light bulbs, balloons, or insulation panels.
- Adjust machine components to regulate speeds, pressures, and temperatures, and amounts, dimensions, and flow of materials or ingredients.
- Clean dies, arbors, compression chambers, and molds, using swabs, sponges, or air hoses.
- Clear jams, and remove defective or substandard materials or products.
- Complete work tickets, and place them with products.
- Couple air and gas lines to machines to maintain plasticity of material and to regulate solidification of final products.
- Disassemble equipment to repair it or to replace parts such as nozzles, punches, and filters.
- Examine, measure, and weigh materials or products to verify conformance to standards, using measuring devices such as templates, micrometers, or scales.
- Feed products into machines by hand or conveyor.
- Ignite burners to preheat products, or use torches to apply heat.
- Install, align, and adjust neck rings, press plungers, and feeder tubes.
- Measure arbors and dies to verify sizes specified on work tickets.
- Measure, mix, cut, shape, soften, and join materials and ingredients such as powder, cornmeal, or rubber in order to prepare them for machine processing.
- Monitor machine operations and observe



- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.
- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications
- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery

lights and gauges in order to detect malfunctions.

- Move materials, supplies, components, and finished products between storage and work areas, using work aids such as racks, hoists, and handtrucks.
- Notify supervisors when extruded filaments fail to meet standards.
- Pour, scoop, or dump specified ingredients, metal assemblies, or mixtures into sections of machine prior to starting machines.
- Press control buttons to activate machinery and equipment.
- Record and maintain production data such as meter readings, and quantities, types, and dimensions of materials produced.
- Remove materials or products from molds or from extruding, forming, pressing, or compacting machines, and stack or store them for additional processing.
- Remove molds, mold components, and feeder tubes from machinery after production is complete.
- Review work orders, specifications, or instructions to determine materials, ingredients, procedures, components, settings, and adjustments for extruding, forming, pressing, or compacting machines.
- Select and install machine components such as dies, molds, and cutters, according to specifications, using hand tools and measuring devices.
- Send product samples to laboratories for analysis.
- Swab molds with solutions to prevent products from sticking.
- Synchronize speeds of sections of machines when producing products involving several steps or processes.
- Thread extruded strips through water tanks and hold-down bars, or attach strands to wires and draw them through tubes.
- Turn controls to adjust machine functions, such as regulating air pressure, creating vacuums, and adjusting coolant flow.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- collect samples for testing
- confer with engineering, technical or manufacturing personnel
- construct molds
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery



- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

- 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
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate chemical processing equipment
- operate food processing production equipment/machinery
- operate glass or stone working equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate pulp or paper making equipment
- operate woodworking equipment/machinery
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- test manufactured products or materials
- use hand or power tools
- use precision measuring tools or equipment

Labor Market Comparison

Maine Department of Labor.

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 25,840	\$ 28,330	\$ 2,490
10th Percentile Wage	\$ 17,060	\$ 17,200	\$ 140
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 29,370	\$ 35,290	\$ 5,920
90th Percentile Wage	\$ 31,830	\$ 44,260	\$ 12,430
Mean Wage	\$ 25,210	\$ 29,370	\$ 4,160
Total Employment - 2584	290	260	-30
Employment Base - 2006	N/A	272	N/A
Projected Employment - 2593	N/A	252	N/A
Projected Job Growth - 2006-2593	0.0 %	-7.4 %	-7.4 %



Projected Annual Openings - 2006-2593	0	5	5
Special			
Special Occupations:			

National Job Posting Trends

Trend for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders



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

Programs

Related 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
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 Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6064.00	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	100	3	290	\$25,840.00	\$0.00	0%	0	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	85	2	260	\$28,330.00	\$2,490.00	-7%	5	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	85	1	80	\$27,620.00	\$1,780.00	-15%	2	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	84	2	910	\$38,230.00	\$12,390.00	-26%	23	



51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	82	2	710	\$31,350.00	\$5,510.00	-23%	12	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	82	2	850	\$38,860.00	\$13,020.00	-26%	19	
51-2031.00	Engine and Other Machine Assemblers	81	3	20	\$29,010.00	\$3,170.00	-45%	1	
51-5021.00	Job Printers	81	3	140	\$31,890.00	\$6,050.00	-10%	2	
51-5023.00	Printing Machine Operators	80	2	790	\$29,710.00	\$3,870.00	-3%	18	
53-7063.00	Machine Feeders and Offbearers	80	1	480	\$26,820.00	\$980.00	-22%	9	
51-3091.00	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	79	2	90	\$27,600.00	\$1,760.00	0%	4	
51-4194.00	Tool Grinders, Filers, and Sharpeners	79	2	100	\$29,460.00	\$3,620.00	-20%	2	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$7,140.00	-18%	9	
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$12,190.00	7%	49	
51-5011.00	Bindery Workers	79	2	350	\$26,130.00	\$290.00	-20%	5	

Special Occupations:

**Top Industries for Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders**

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Rubber product manufacturing	326200	18.33%	14,883	10,510	-29.39%
Cement and concrete product manufacturing	327300	11.55%	9,375	10,176	8.55%
Plastics product manufacturing	326100	8.23%	6,685	7,086	6.00%
Glass and glass product manufacturing	327200	5.04%	4,093	3,571	-12.76%
Clay product and refractory manufacturing	327100	4.14%	3,358	3,075	-8.41%
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	325200	3.99%	3,237	2,599	-19.73%
Converted paper product manufacturing	322200	3.67%	2,982	2,502	-16.08%
Pharmaceutical and medicine manufacturing	325400	3.01%	2,444	3,080	26.03%
Animal slaughtering and processing	311600	2.87%	2,329	2,658	14.13%
Soap, cleaning compound, and toilet preparation manufacturing	325600	2.17%	1,763	1,694	-3.92%
Veneer, plywood, and engineered wood product manufacturing	321200	2.10%	1,703	1,854	8.89%
Bakeries and tortilla manufacturing	311800	1.66%	1,350	1,379	2.15%
Sugar and confectionery product manufacturing	311300	1.59%	1,292	1,088	-15.77%
Pulp, paper, and paperboard mills	322100	1.56%	1,265	877	-30.64%
Other chemical product and preparation manufacturing	325900	1.36%	1,106	870	-21.34%

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%
Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%
Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%





TORQ Analysis of Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders to Cementing and Gluing Machine Operators and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					85
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	90	Level	83	Level	83

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Static Strength	48	7	62	Troubleshooting	59	10	77	No Knowledge Upgrades Required!			
Multilimb Coordination	50	6	59	Reading Comprehension	51	11	69				
Oral Expression	46	7	50	Operation and Control	64	9	82				
Rate Control	46	4	72	Equipment Maintenance	64	9	73				
Written Comprehension	42	5	50	Judgment and Decision Making	52	5	69				
Information Ordering	42	5	50								
Response Orientation	42	5	50								
Oral Comprehension	44	3	56								
Reaction Time	55	2	56								
Speech Recognition	39	2	53								
Deductive Reasoning	39	2	50								
Selective Attention	44	2	50								

LEVEL and IMPT (IMPORTANCE) refer to the Target Cementing and Gluing Machine Operators and Tenders. GAP refers to level difference between Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Cementing and Gluing Machine Operators and Tenders.

ASK ANALYSIS



Ability Level Comparison - Abilities with importance scores over 50

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders	Importance
Rate Control	42	46	72
Arm-Hand Steadiness	59	44	68
Trunk Strength	44	42	68
Manual Dexterity	48	44	65
Finger Dexterity	53	42	62
Static Strength	41	48	62
Control Precision	50	48	59
Multilimb Coordination	44	50	59
Oral Comprehension	41	44	56
Problem Sensitivity	46	41	56
Reaction Time	53	55	56
Stamina	35	35	56
Extent Flexibility	50	50	56
Near Vision	50	44	56
Perceptual Speed	46	44	53
Gross Body Coordination	39	37	53
Far Vision	44	41	53
Speech Recognition	37	39	53
Speech Clarity	35	34	53
Written Comprehension	37	42	50
Oral Expression	39	46	50
Deductive Reasoning	37	39	50
Information Ordering	37	42	50
Visualization	44	42	50
Selective Attention	42	44	50
Response Orientation	37	42	50
Depth Perception	41	39	50
Hearing Sensitivity	44	37	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders	Importance
Operation and Control	55	64	82
Troubleshooting	49	59	77
Equipment Maintenance	55	64	73
Reading Comprehension	40	51	69
Judgment and Decision Making	47	52	69



Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders	Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders
10+ years	0%	12%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	11%	4%	Master's Degree	0%	0%
2-4 years	0%	0%	Post-Bachelor Cert	0%	0%
1-2 years	5%	23%	Bachelors	0%	0%
6-12 months	2%	3%	AA or Equiv	0%	0%
3-6 months	0%	11%	Some College	0%	0%
1-3 months	19%	6%	Post-Secondary Certificate	1%	0%
0-1 month	10%	4%	High School Diploma or GED	78%	80%
None	50%	32%	No HSD or GED	19%	19%

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Cementing and Gluing Machine Operators and Tenders

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Moderate-term on-the-job training

Job Zone Comparison

3 - Job Zone Three: Medium Preparation Needed

1 - Job Zone One: Little or No Preparation Needed

Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.

Tasks

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Cementing and Gluing Machine Operators and Tenders
Core Tasks	Core Tasks

**Generalized Work Activities:**

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- 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.

Specific Tasks**Occupation Specific Tasks:**

- Adjust machine settings such as speed or tension to produce products that meet specifications.
- Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns.
- Inspect machinery to determine whether repairs are needed.
- Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed.
- Install, level, and align machine components such as gears, chains, guides, dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.
- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks**Occupation Specific Tasks:**

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.
- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make adjustments as necessary to ensure that completed products meet standards and specifications.



- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.
- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications
- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery

- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts
- use hand or power tools
- use precision measuring tools or equipment



- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

Labor Market Comparison

Maine Department of Labor.

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25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 29,370	\$ 30,470	\$ 1,100
90th Percentile Wage	\$ 31,830	\$ 32,670	\$ 840
Mean Wage	\$ 25,210	\$ 26,990	\$ 1,780
Total Employment - 2584	290	80	-210
Employment Base - 2006	N/A	78	N/A
Projected Employment - 2593	N/A	66	N/A
Projected Job Growth - 2006-2593	0.0 %	-15.4 %	-15.4 %
Projected Annual Openings - 2006-2593	0	2	2
Special			

Special Occupations:

National Job Posting Trends

Trend for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Cementing and Gluing Machine Operators and Tenders



Programs			
Related Programs			
Industrial Machinery Main. and Repairer			
<p>Industrial Mechanics and Maintenance Technology. A program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.</p>			
Institution	Address	City	URL
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu

Maine Statewide Promotion Opportunities for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders									
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51-2031.00	Engine and Other Machine Assemblers	81	3	20	\$29,010.00	\$3,170.00	-45%	1
51-5021.00	Job Printers	81	3	140	\$31,890.00	\$6,050.00	-10%	2
51-5023.00	Printing Machine Operators	80	2	790	\$29,710.00	\$3,870.00	-3%	18
53-7063.00	Machine Feeders and Offbearers	80	1	480	\$26,820.00	\$980.00	-22%	9
51-3091.00	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	79	2	90	\$27,600.00	\$1,760.00	0%	4



51-4194.00	Tool Grinders, Filers, and Sharpeners	79	2	100	\$29,460.00	\$3,620.00	-20%	2	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$7,140.00	-18%	9	
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$12,190.00	7%	49	★
51-5011.00	Bindery Workers	79	2	350	\$26,130.00	\$290.00	-20%	5	

Special Occupations:

Top Industries for Cementing and Gluing Machine Operators and Tenders					
Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
Plastics product manufacturing	326100	12.37%	2,891	3,064	6.00%
Printing and related support activities	323100	10.88%	2,542	2,014	-20.77%
Veneer, plywood, and engineered wood product manufacturing	321200	7.53%	1,759	1,916	8.89%
Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
Motor vehicle body and trailer manufacturing	336200	1.57%	366	358	-2.15%
Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders



Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%
Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%
Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%



TORQ Analysis of Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders to Paper Goods Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Paper Goods Machine Setters, Operators, and Tenders	51-9196.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					84
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level		90	Level		85
			Level		77

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Information Ordering	42	5	53	Reading Comprehension	54	14	69	English Language	40	18	71
Oral Comprehension	44	3	53	Operation and Control	75	5	78				
Oral Expression	42	3	50	Management of Material Resources	36	3	71				
Selective Attention	44	2	56								
Auditory Attention	46	2	50								

LEVEL and IMPT (IMPORTANCE) refer to the Target Paper Goods Machine Setters, Operators, and Tenders. GAP refers to level difference between Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Paper Goods Machine Setters, Operators, and Tenders.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
Problem Sensitivity	46	39	59
Arm-Hand Steadiness	59	42	59
Selective Attention	42	44	56
Control Precision	50	48	56
Near Vision	50	48	56



Oral Comprehension	41	44	53
Information Ordering	37	42	53
Manual Dexterity	48	41	53
Finger Dexterity	53	42	53
Oral Expression	39	42	50
Deductive Reasoning	37	37	50
Auditory Attention	44	46	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
Operation and Control	70	75	78
Management of Material Resources	33	36	71
Reading Comprehension	40	54	69

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
English Language	22	40	71

Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	3%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	11%	0%	Master's Degree	0%	0%
2-4 years	0%	0%	Post-Bachelor Cert	0%	0%
1-2 years	5%	41%	Bachelors	0%	0%
6-12 months	2%	1%	AA or Equiv	0%	0%
3-6 months	0%	5%	Some College	0%	0%
1-3 months	19%	16%	Post-Secondary Certificate	1%	0%
0-1 month	10%	3%	High School Diploma or GED	78%	74%
None	50%	27%	No HSD or GED	19%	24%

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Paper Goods Machine Setters, Operators, and Tenders

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Moderate-term on-the-job training

Job Zone Comparison



3 - Job Zone Three: Medium Preparation Needed	2 - Job Zone Two: Some Preparation Needed
Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.	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.
Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.	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.
Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.	Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders
Core Tasks	Core Tasks
<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. • Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. • Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles. • Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). • 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. 	<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). • Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. • Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
Specific Tasks	Specific Tasks
<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Adjust machine settings such as speed or tension to produce products that meet specifications. • Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns. • Inspect machinery to determine whether repairs are needed. • Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed. • Install, level, and align machine components such as gears, chains, guides, 	<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Adjust guide assemblies, forming bars, and folding mechanisms according to specifications, using hand tools. • Cut products to specified dimensions, using hand or power cutters. • Disassemble machines to maintain, repair, or replace broken or worn parts, using hand or power tools. • Examine completed work to detect defects and verify conformance to work orders, and adjust machinery as necessary to correct production problems. • Fill glue and paraffin reservoirs, and position rollers to dispense glue onto paperboard. • Install attachments to machines for gluing, folding, printing, or cutting. • Lift tote boxes of finished cartons, and dump cartons into feed hoppers



- dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.
- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.
- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.
- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup

- Load automatic stapling mechanisms.
- Measure, space, and set saw blades, cutters, and perforators, according to product specifications.
- Monitor finished cartons as they drop from forming machines into rotating hoppers and then into gravity feed chutes, in order to prevent jamming.
- Observe operation of various machines to detect and correct machine malfunctions such as improper forming, glue flow, or pasteboard tension.
- Place rolls of paper or cardboard on machine feedtracks, and thread paper through gluing, coating, and slitting rollers.
- Remove finished cores, and stack or place them on conveyors for transfer to other work areas.
- Stamp products with information such as dates, using hand stamps or automatic stamping devices.
- Start machines and move controls to regulate tension on pressure rolls, to synchronize speed of machine components, and to adjust temperatures of glue or paraffin.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- examine products or work to verify conformance to specifications
- 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
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate pulp or paper making equipment
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment



- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications
- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

Labor Market Comparison

Maine Department of Labor.

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 25,840	\$ 38,230	\$ 12,390
10th Percentile Wage	\$ 17,060	\$ 25,850	\$ 8,790
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 29,370	\$ 45,200	\$ 15,830
90th Percentile Wage	\$ 31,830	\$ 51,680	\$ 19,850
Mean Wage	\$ 25,210	\$ 38,330	\$ 13,120
Total Employment - 2584	290	910	620
Employment Base - 2006	N/A	951	N/A
Projected Employment - 2593	N/A	700	N/A
Projected Job Growth - 2006-2593	0.0 %	-26.4 %	-26.4 %
Projected Annual Openings - 2006-2593	0	23	23

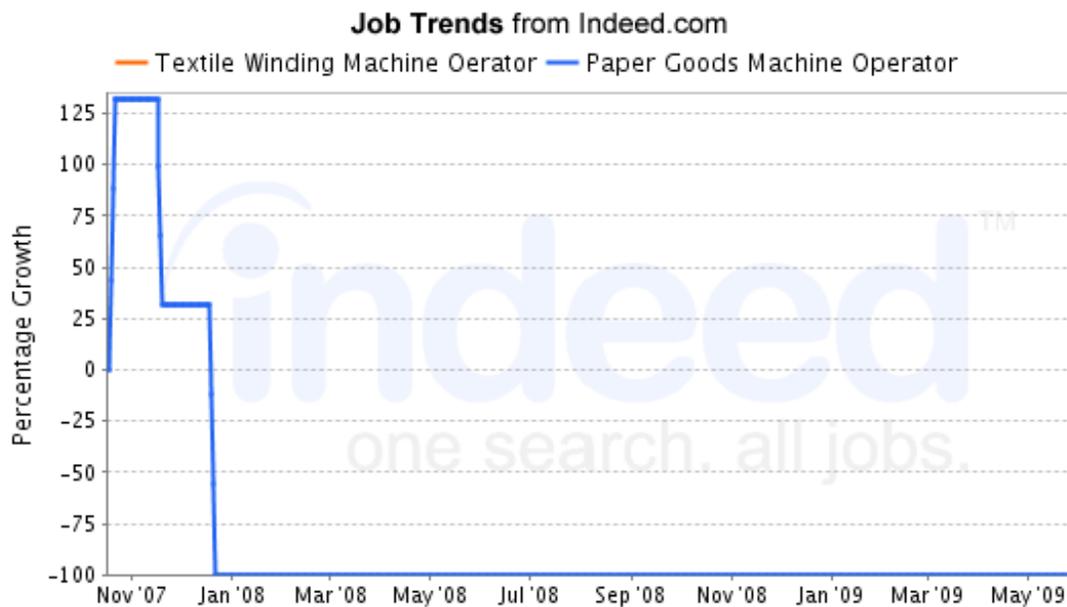


Special

Special Occupations:

National Job Posting Trends

Trend for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Paper Goods Machine Setters, Operators, and Tenders

Data from [Indeed](#)**Programs**

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6064.00	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	100	3	290	\$25,840.00	\$0.00	0%	0	



51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	85	2	260	\$28,330.00	\$2,490.00	-7%	5
51-9191.00	Cementing and Gluing Machine Operators and Tenders	85	1	80	\$27,620.00	\$1,780.00	-15%	2
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	84	2	910	\$38,230.00	\$12,390.00	-26%	23
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	82	2	710	\$31,350.00	\$5,510.00	-23%	12
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	82	2	850	\$38,860.00	\$13,020.00	-26%	19
51-2031.00	Engine and Other Machine Assemblers	81	3	20	\$29,010.00	\$3,170.00	-45%	1
51-5021.00	Job Printers	81	3	140	\$31,890.00	\$6,050.00	-10%	2
51-5023.00	Printing Machine Operators	80	2	790	\$29,710.00	\$3,870.00	-3%	18
53-7063.00	Machine Feeders and Offbearers	80	1	480	\$26,820.00	\$980.00	-22%	9
51-3091.00	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	79	2	90	\$27,600.00	\$1,760.00	0%	4



51-4194.00	Tool Grinders, Filers, and Sharpeners	79	2	100	\$29,460.00	\$3,620.00	-20%	2	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$7,140.00	-18%	9	
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$12,190.00	7%	49	★
51-5011.00	Bindery Workers	79	2	350	\$26,130.00	\$290.00	-20%	5	

Special Occupations:

Top Industries for Paper Goods Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	60.48%	68,412	57,411	-16.08%
Pulp, paper, and paperboard mills	322100	21.93%	24,800	17,202	-30.64%
Printing and related support activities	323100	8.22%	9,293	7,363	-20.77%
Newspaper publishers	511110	1.36%	1,536	1,316	-14.33%
Plastics product manufacturing	326100	1.27%	1,439	1,525	6.00%
Wholesale electronic markets and agents and brokers	425100	0.67%	762	865	13.48%
Employment services	561300	0.55%	618	783	26.56%
Animal slaughtering and processing	311600	0.46%	521	595	14.13%
Advertising and related services	541800	0.40%	448	505	12.83%
Paper and paper product merchant wholesalers	424100	0.39%	440	470	6.83%
Other general purpose machinery manufacturing	333900	0.19%	219	198	-9.73%
Miscellaneous durable goods merchant wholesalers	423900	0.09%	100	114	14.81%
Warehousing and storage	493100	0.07%	76	101	33.58%
Other electrical equipment and component manufacturing	335900	0.06%	69	64	-7.34%
Fruit and vegetable preserving and specialty food manufacturing	311400	0.05%	61	55	-9.33%

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders



Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%
Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%
Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%



TORQ Analysis of Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders to Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	51-9121.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:								82			
Ability TORQ			Skills TORQ				Knowledge TORQ				
Level			89	Level			84	Level			
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Visual Color Discrimination	59	9	75	Active Listening	52	10	70	No Knowledge Upgrades Required!			
Multilimb Coordination	50	6	59								
Trunk Strength	50	6	59								
Static Strength	46	5	59								
Information Ordering	42	5	56								
Rate Control	46	4	59								
Far Vision	48	4	59								
Written Comprehension	41	4	50								
Deductive Reasoning	41	4	50								
Visualization	46	2	56								
<p>LEVEL and IMPT (IMPORTANCE) refer to the Target Coating, Painting, and Spraying Machine Setters, Operators, and Tenders. GAP refers to level difference between Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Coating, Painting, and Spraying Machine Setters, Operators, and Tenders.</p>											

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50



Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Importance
Visual Color Discrimination	50	59	75
Control Precision	50	50	68
Arm-Hand Steadiness	59	48	65
Manual Dexterity	48	48	62
Near Vision	50	46	62
Finger Dexterity	53	48	59
Multilimb Coordination	44	50	59
Rate Control	42	46	59
Static Strength	41	46	59
Trunk Strength	44	50	59
Far Vision	44	48	59
Information Ordering	37	42	56
Perceptual Speed	46	46	56
Visualization	44	46	56
Problem Sensitivity	46	42	53
Selective Attention	42	42	53
Hearing Sensitivity	44	42	53
Written Comprehension	37	41	50
Deductive Reasoning	37	41	50
Flexibility of Closure	41	41	50
Reaction Time	53	50	50
Speech Recognition	37	37	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Importance
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Active Listening	42	52	70
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Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Importance
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Experience & Education Comparison

Related Work Experience Comparison		Required Education Level Comparison			
Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
			Doctoral	0%	0%



10+ years	0%	0%	Professional Degree	0%	0%
8-10 years	0%	0%	Post-Masters Cert	0%	0%
6-8 years	0%	17%	Master's Degree	0%	0%
4-6 years	11%	0%	Post-Bachelor Cert	0%	0%
2-4 years	0%	20%	Bachelors	0%	0%
1-2 years	5%	13%	AA or Equiv	0%	0%
6-12 months	2%	5%	Some College	0%	0%
3-6 months	0%	14%	Post-Secondary Certificate	1%	16%
1-3 months	19%	0%	High School Diploma or GED	78%	49%
0-1 month	10%	12%	No HSD or GED	19%	34%
None	50%	16%			

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Moderate-term on-the-job training

Job Zone Comparison

3 - Job Zone Three: Medium Preparation Needed

2 - Job Zone Two: Some Preparation Needed

Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.

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.

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

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.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Core Tasks

Core Tasks

Generalized Work Activities:

Generalized Work Activities:

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Repairing and Maintaining Mechanical Equipment - Servicing, repairing, adjusting, and testing machines, devices, moving parts, and equipment that operate primarily on the basis of mechanical (not electronic) principles.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.

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- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- 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.



- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine settings such as speed or tension to produce products that meet specifications.
- Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns.
- Inspect machinery to determine whether repairs are needed.
- Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed.
- Install, level, and align machine components such as gears, chains, guides, dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.
- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.
- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for

Specific Tasks

Occupation Specific Tasks:

- Attach and align machine parts such as rollers, guides, brushes, and blades, using hand tools.
- Attach hoses or nozzles to machines, using wrenches and pliers, and make adjustments to obtain the proper dispersion of spray.
- Clean machines, related equipment, and work areas, using water, solvents and other cleaning aids.
- Determine paint flow, viscosity, and coating quality by performing visual inspections, or by using viscometers.
- Examine, measure, weigh, or test sample products to ensure conformance to specifications.
- Fill hoppers, reservoirs, troughs, or pans with material used to coat, paint, or spray, using conveyors or pails.
- Hold or position spray guns to direct spray onto articles.
- Observe machine gauges and equipment operation to detect defects or deviations from standards, and make adjustments as necessary.
- Operate auxiliary machines or equipment used in coating or painting processes.
- Paint small items and perform touch-up painting, using paint brushes.
- Perform test runs to ensure that equipment is set up properly.
- Place items or products on feedracks, spindles, or reel strands to coat, paint, or spray them, using hands, hoists, or trucklifts.
- Prepare and apply stencils, computer-generated decals, or other decorative items to finished products.
- Record operational data on specified forms.
- Remove materials, parts, or workpieces from painting or coating machines, using hand tools.
- Select appropriate coatings, paints, or sprays, or prepare them by mixing substances according to formulas, using automated paint mixing equipment.
- Set up and operate machines to paint or coat products with such materials as silver and copper solution, rubber, paint, glaze, oil, or rustproofing materials.
- Spray coated products with salt solutions to determine how they will resist corrosion.
- Start and stop operation of machines, using levers or buttons.
- Start pumps to mix solutions and fill tanks.
- Thread or feed items or products through or around machine rollers and dryers.
- Transfer completed items or products from machines to drying or storage areas, using handcarts, handtrucks, or cranes.



use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.

- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications
- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

- Turn dials, handwheels, valves, or switches to regulate conveyor speeds, machine temperature, air pressure and circulation, and the flow or spray of coatings or paints.
- Weigh or measure chemicals, coatings, or paints before adding them to 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
- control operation of compressors
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate forklift
- operate glass or stone working equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate mix or blending machine
- operate paint or coating application production machinery
- operate power driven pumps
- operate pulp or paper making equipment
- perform safety inspections in manufacturing or industrial setting
- set up production equipment or machinery
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment
- use spray application production equipment
- use spray paint equipment

Labor Market Comparison



Maine Department of Labor.

Description	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 25,840	\$ 38,860	\$ 13,020
10th Percentile Wage	\$ 17,060	\$ 21,280	\$ 4,220
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 29,370	\$ 47,830	\$ 18,460
90th Percentile Wage	\$ 31,830	\$ 56,160	\$ 24,330
Mean Wage	\$ 25,210	\$ 38,450	\$ 13,240
Total Employment - 2584	290	850	560
Employment Base - 2006	N/A	968	N/A
Projected Employment - 2593	N/A	721	N/A
Projected Job Growth - 2006-2593	0.0 %	-25.5 %	-25.5 %
Projected Annual Openings - 2006-2593	0	19	19
Special			

Special Occupations:

National Job Posting Trends

Trend for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders and Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

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

**Programs****Related Programs****Auto/Automotive Body Repairer**

Autobody/Collision and Repair Technology/Technician. A program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
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Maine Statewide Promotion Opportunities for Textile Winding, Twisting, and Drawing Out**Machine Setters, Operators, and Tenders**

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6064.00	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	100	3	290	\$25,840.00	\$0.00	0%	0	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	85	2	260	\$28,330.00	\$2,490.00	-7%	5	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	85	1	80	\$27,620.00	\$1,780.00	-15%	2	



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	84	2	910	\$38,230.00	\$12,390.00	-26%	23	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	82	2	710	\$31,350.00	\$5,510.00	-23%	12	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	82	2	850	\$38,860.00	\$13,020.00	-26%	19	
51-2031.00	Engine and Other Machine Assemblers	81	3	20	\$29,010.00	\$3,170.00	-45%	1	
51-5021.00	Job Printers	81	3	140	\$31,890.00	\$6,050.00	-10%	2	
51-5023.00	Printing Machine Operators	80	2	790	\$29,710.00	\$3,870.00	-3%	18	
53-7063.00	Machine Feeders and Offbearers	80	1	480	\$26,820.00	\$980.00	-22%	9	
51-3091.00	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	79	2	90	\$27,600.00	\$1,760.00	0%	4	
51-4194.00	Tool Grinders, Filers, and Sharpeners	79	2	100	\$29,460.00	\$3,620.00	-20%	2	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$7,140.00	-18%	9	
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$12,190.00	7%	49	



51-5011.00	Bindery Workers	79	2	350	\$26,130.00	\$290.00	-20%	5
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Special Occupations:

Top Industries for Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Coating, engraving, heat treating, and allied activities	332800	9.61%	10,229	7,965	-22.13%
Architectural and structural metals manufacturing	332300	6.06%	6,454	6,548	1.46%
Plastics product manufacturing	326100	5.19%	5,529	5,567	0.70%
Converted paper product manufacturing	322200	5.18%	5,513	4,395	-20.28%
Wood kitchen cabinet and countertop manufacturing	337110	4.58%	4,877	5,129	5.18%
Self-employed workers, primary job	000601	3.78%	4,020	4,069	1.21%
Other fabricated metal product manufacturing	332900	3.43%	3,648	3,071	-15.83%
Motor vehicle parts manufacturing	336300	3.34%	3,553	2,687	-24.37%
Other general purpose machinery manufacturing	333900	3.17%	3,378	2,897	-14.24%
Other wood product manufacturing	321900	2.75%	2,929	2,622	-10.48%
Boiler, tank, and shipping container manufacturing	332400	2.59%	2,755	2,358	-14.39%
Household and institutional furniture manufacturing	337120	2.27%	2,418	1,748	-27.71%
Office furniture (including fixtures) manufacturing	337200	2.24%	2,387	2,132	-10.67%
Commercial and service industry machinery manufacturing	333300	1.75%	1,861	1,551	-16.67%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	1.67%	1,780	1,555	-12.61%

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%
Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%



Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%

Industry & Occupational Data Sources

TORQ Results: The TORQ Scores is based upon an proprietary algorithm applied against Knowledge, Skills and Ability levels and importance derived from O*NET 12.

ASK Analysis, Experience & Education Levels and Tasks: O*Net 12

Labor Market Comparisons Occupational Projections data from Maine Department of Labor

National Posting Trends Indeed.com

Labor Pool & Promotions Opportunities: Occupational Projections data from Maine Department of Labor

Top Industries: Occupational Employment Statistics program (U.S. Bureau of Labor Statistics)