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Physical Demands Analysis

Cabinet Maker

Prepared for:
Alberta Construction Association

Job Title:	Cabinet Maker	**Assessment Location:**	Calgary, AB	**Data Collection Date:**	November 24, 2020

Completed By:	Terilyn Miranda, OT	**Submitted on:**	May 4, 2021

Disclaimer:	The Physical Demands noted in this report may vary depending on company and location. Please contact the company directly to confirm this physical demands analysis is an accurate representation of the specific job title for the specific location.

Work Schedule:	**Shift Duration:** 4-5 days/week, 9 hours/day; days may vary depending on projects available **Break Schedule:** Total of 1 hour break per day (2 x 15 minute, 1 x 30 minute) **Shift Rotation:** Not applicable **On call is required:** No **Overtime required:** No; but may be available depending on project volume

Education / Experience:	**Education required:** Not Applicable **Hours required for position:** N/A **Tickets that may be required (not limited to):** First Aid, WHMIS, Construction Safety Training Systems (CSTS) and Basic Safety Orientation (BSO).

Labour Provider:	N/A

Job Overview: As a Cabinet Maker the worker is required to plan and construct cabinetry according to paper plans received from the customer and specifications provided. This includes preparing materials to be cut, edgebanded, pressed, cut out, etc.

% of shift	Job Task	Task Description
1 to 10%	Reviewing blueprints, and plan construction of cabinetry	• Obtaining paper plans • Planning the process materials, and measurements required to construct cabinetry as requested by customer • Gather appropriate materials for job
0 to 50 %	Assembly of cabinets, doors, etc.	• Lifting and transferring the materials to the adhesive table • Use of glue/adhesive and roller to apply to materials; can be done completed with assistance to ensure efficiency • Applying border pieces with adhesive • Lifting and transferring laminate panels and secure with adhesive

			• Lifting and transferring assembled material into cold press; removing and placing on pallet or transport cart once completed
	0 to 15%	Use of drum sander to smooth materials	• Transporting materials to drum sander with transport cart • Receiving assistance from Heavy Equipment Operator to load appropriate sand paper grain as needed • Verify settings of drum sander/adjust settings on computer • Lift and transfer materials to drum sand table • Walk around to output side of sanding table to receive materials • Lift materials to inspect before transferring back to transport cart • Materials can be run through 3-4 times as needed
	0 to 15%	Hand sand edges, corner, and smaller materials	• Typically completed at workstation in standing; anti-fatigue matting present • Use of varying grains of sand paper blocks • Worker usually forward flexed and forward reaching to complete hand sanding
	0 to 15%	Use of planer to level out material surfaces	• Transporting materials to planer via transport cart • Power on and set planer to appropriate setting • Lift and transfer materials to planer table and apply pressure to assist in starting feed • Walk around to output end to receive materials; some pull force may be required to remove • Lift material to inspect before completion; measure and mark areas as needed • Transfer materials back to transport cart • Materials may be run through on all sides, and/or on more than one pass as needed • If planning smaller materials, multiple can be run through simultaneously
	0 to 15%	Use of shaper to trim and shape materials	• Transporting materials to shaper via transport cart • Forward bend/squat to power on and set shaper • Lift and transfer materials to shaper table and brace material in place • Forward push to guide material through shaper • Use of hand tools to assist in preparing shaper controls • Lifting and transferring materials back to transport cart • Overhead reach to ensure exhaust is working appropriately • Lifting and maneuvering material during inspection
	0 to 25%	Use of table saw to cut large panels of material	• Use of vertical carts or standard transport carts to bring materials to saw area

		to required size	• If using vertical cart with large panels of material, lift from ground level required and typically carried in a side carry to saw area, or with assistance • Push/pull force required to set table saw to appropriate specifications prior to cutting • Forward push with sustained forward bend to support the material as it is being cut • Lifting and transferring materials to secondary surfaces or transport cart once cut • May be required to re-set and cut materials to more than one size

Equipment/ Tools:	• Butfering Diamond QCE Drum Sander • Heat Press • Cold Press • Hand tools (e.g. wrenches, power drill, screw drivers, sanding blocks) • SCM Hydro 3200 Table Saw • Martin Planer • Martin Shaper • Pallet Jack • Transport carts

Exposures:	• Loud noises from saws, sanders, and other power machinery • Vibration from large powered machinery • Fumes from adhesives and glues • Wood dust and shavings	
Environment:	Workstation	Variable depending on task – shared workstations and large equipment usage within a large open warehouse
	Indoor/Outdoor	Majority indoors
	Temperatures	Controlled
	Floor Surface	Cement flooring in work area; tile/low pile carpeting in lobby; wooden stairs
	Lighting	Fluorescent overhead
	Noise	Loud environmental noise; various heavy machinery running at one time Hearing protection required with and around tool and heavy equipment use
	Fumes/Odours/Dust	Exposure to wood dust and debris Fumes from paint, stains, cleaners, adhesives and oils present within work areas
	Chemicals	Exposure to paint, stains, cleaners, adhesives and oils throughout work areas

	Vibration	With use of hand tools and heavy equipment

Personal Protective Equipment Required:	• Steel toed boots • Long pants
Personal Protective Equipment as Required:	• Gloves • Ear Protection • Eye Protection

NOC STRENGTH LEVEL KEY	
Strength Level	**Definition**
Limited (Lim)	Up to 5 kg (11 pounds)
Light (L)	5 kg to 10 kg (11 – 22 pounds)
Medium (M)	10 kg to 20 kg (22 – 44 pounds)
Heavy (H)	Greater than 20 kg (44 pounds plus)

Strength Level Key based on the National Occupational Classification

FREQUENCY KEY		
Frequency	**% of Workday**	**Hours – Based on 8 hour Workday**
Not Required (N/R)	0%	0
Rarely (R)	1 – 5%	<25 min/day
Occasionally (O)	6 – 33%	25 min to 2 hours 40 min/day
Frequently (F)	34 – 66%	2 hours 41 min to 5 hours 17 min/day
Constantly (C)	67 – 100%	5 hours 18 min to 8 hours/day

Frequency Key based on WCB Alberta Recommendations

Job Demand	**Frequency / NOC Strength Level**					**Details/ Measurements**
	N/R	**R**	**O**	**F**	**C**	
Material Handling:						
Floor to Waist Level Lifting		H	Lim-M			-Lifting prepped doors (~60 lbs.) from pallet height to adhesive table, drum sander, workstation table; typically completed with buddy lift due to size/shape -Lifting materials (1 to 40 lbs.) from pallet height to working height (36” to 38” high)
Knee to Waist Level Lifting		H	Lim-M			-Lifting prepped doors (~60 lbs.) from pallet height to adhesive table, drum sander, workstation table (36”); typically completed with buddy lift due to size/shape -Lifting materials (1 to 40 lbs.) from stacked pallet height and vertical transport carts to working height

Waist to Waist Level Lifting		H	Lim-M			-Transferring materials (1-40 lbs.) from the transport cart (34" high) to the drum sander (36" high), planer, table saw, or adhesive table -Transferring doors (~60 lbs.) from adhesive table to press table
Waist to Chest Level Lifting		H				-Transferring doors (~60 lbs.) from adhesive table to press table (7' high), or workstation -Carrying large panels of laminate (7' x 4'), MDF (6' x 3'), plywood (6' x 3'), etc.; often in a side carry with the panel in vertical position
Waist to Shoulder Level Lifting		H				-Transferring doors (~60 lbs.) from adhesive table (36" high) to press table (7' high) if stacking items for combined pressing -Carrying large panels of laminate (7' x 4'), MDF (6' x 3'), plywood (6' x 3'), etc.; often in a side carry with the panel in vertical position
Waist to Overhead Level Lifting	X					-None
Front Carry		M				-Carrying materials throughout work space (1 to 40 lbs.) -Larger panels of laminate (7' x 4') may be carried as a two-handed side carry due to its shape
Right / Left-handed Carry (Dominant Hand)		Lim				-Use of roller when applying adhesive -Carrying hand tools (e.g. power drill, wrench, etc.)
Shoulder Carry	X					-None
Static Pushing/Pulling (Force)		Lim				-Assisting material through planer or drum sander -Setting the table saw specifications -Positioning materials in the press
Dynamic Pushing/Pulling (Force)		Lim-L				-Supporting material as it is being cut on table saw -Use of transport carts to move materials throughout work spaces as needed (5.0 lbs. push force) -Use of pallet jack to move pallets throughout workspace

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Upper Extremity Work:						
Hand Gripping				X		-Handling of materials; typically, bilateral grip -Use of chop saw, hand sanding blocks and hand tools
Pinch Gripping			X			-Handling of smaller materials and fasteners (e.g. nails, screw) -Use of pen or pencil when marking up plans -Setting machinery
Upper Extremity Coordination				X		-Feeding items through table saw -Manipulating and maneuvering materials when assembling cabinet pieces, shelving, doors, etc. -Manual handling of large panels of laminate, MDF, plywood, etc.
Reaching Forward				X		-Use of drum sander, planer, table saw, shop saw, etc. -Hand sanding materials -Using roller to apply adhesive to materials
Overhead Shoulder Level Reaching			X			-When handling large panels of materials; use of a side carry -Use of chop saw -Access items within workstation shelving (e.g. sanding blocks, tapes, hand tools, etc.)
Below Shoulder Level Reaching			X			-Access lower level storage at workstation -Saturating the roller with glue/adhesive -Setting machinery for use
Throwing	X					-None

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Positional Work:						
Trunk Flexion (Bending)					X	-When supporting materials while using planar, table saw, drum sander, etc. -Forward bend while rolling adhesive/glue along materials prior to pressing, and leaning into press to insert and position item. Press table height variable between the waist and chest height of an individual depending on stature and amount of items stacked in press -When working at workstation -Amount of forward flexion can vary with worker's height

Trunk Rotation (Twisting)			X			-Transferring items into the press -Removing materials from the sander, table saw, planer, etc. to be placed on an alternate surface or cart
Kneeling	X					-None
Crawling	X					-None
Crouching		X				-To access materials stored beneath work benches, or on pallets -Refilling glue container
Squatting		X				-To access materials stored beneath work benches, or on pallets -Refilling glue container -Powering on and setting table saw, shaper, etc.
Neck Flexion				X		-When viewing materials on work bench, or on machinery benches (height of working areas 36-38")
Neck Extension			X			-Looking across table saw or planar while supporting materials during use -Using the computer to set the drum sander
Neck Rotation			X			-Viewing the work environment and one's surroundings

Job Demand	**Frequency**					**Details/Measurements**
	N/R	**R**	**O**	**F**	**C**	
Static Work:						
Sitting		X				-On breaks as needed -Reviewing blueprints or developing plans at workstation
Static Standing			X			-Hand sanding items, use of hand tools, or assembling materials as workstation -Feeding/retrieving items from drum sander -Applying adhesive/glue to items prior to pressing -Using chop saw
Balancing	X					-None

Job Demand	**Frequency**					**Details/Measurements**
	N/R	**R**	**O**	**F**	**C**	
Ambulation:						
Walking: Level Surfaces					X	-Walking throughout work area as needed; flooring is level concrete -Supporting materials as they are feeding through table saw, planer, etc.

Walking: Uneven Surfaces		X				-Walking outside as needed (e.g. grass, gravel, etc.)
Walking: Slopes	X					-None
Jumping	X					-None
Running	X					-None

Job Demand	**Frequency**					**Details/Measurements**
	N/R	**R**	**O**	**F**	**C**	
Climbing:						
Stairs		X				-To access second story of site as needed
Ladder		X				-Use of step ladder to access higher level storage as needed
Other	X					-None

Sensory/Perception	**Frequency**					**Details**
	N/R	**R**	**O**	**F**	**C**	
Hear/Conversations				X		-Communicating with team members
Hear/Other			X			-Audible alarms, machinery in use, general awareness of surroundings
Vision/Far			X			-Viewing team members working in surroundings, monitoring machinery/materials being manipulated
Vision/Near					X	-Using machinery and hand tools, maneuvering materials, reading blue prints
Vision/Colour					X	-Viewing appropriate materials -Reviewing blueprints/plans
Vision/Depth					X	-Using machinery and hand tools, maneuvering materials
Perception/Spatial					X	-General awareness of surroundings and machinery in use, maneuvering large materials in space and with machinery use
Feeling					X	-Handling materials and machinery
Speech				X		-Communicating with team members -Following direction in emergency situations

PHOTOS OF TASKS AND WORK ENVIRONMENT

Figure 1: Supporting materials from the planer

Figure 2: Use of chop saw to trim materials

Figure 3: Use of the shaper to trim materials

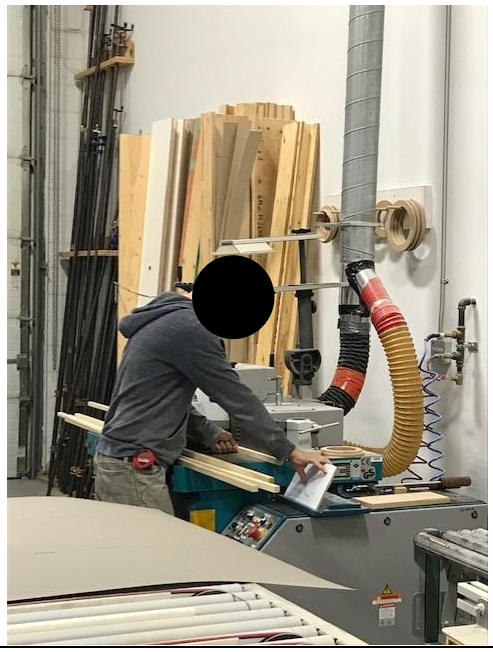

Figure 4: Removing materials from the drum sander to be placed on the transport cart beside

Figure 5: Hand sanding materials at the workstation

Figure 6: Rolling of glue adhesive on materials prior to bonding and pressing

Figure 7: Lifting slab of MDF as it is being prepped for a door

Figure 8: Transferring materials to be adhered prior to pressing

Figure 9: Inserting door in press; maneuvering so it is aligned with second door already in place

Figure 10: Lifting large panel of laminate from transport cart

Figure 11: Supporting panel of laminate as it is being cut with table saw

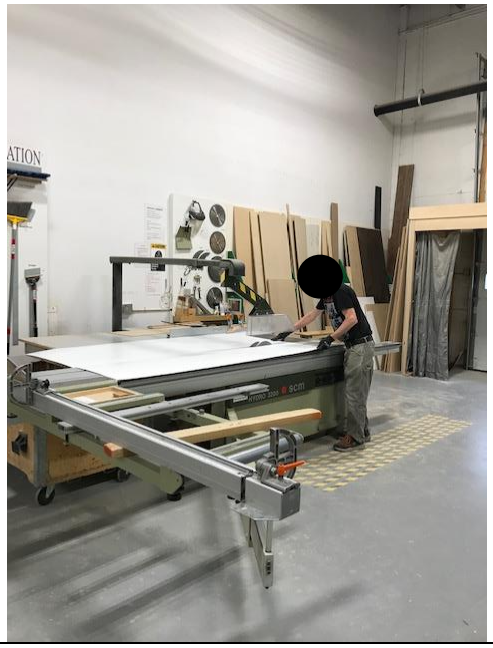

Figure 12: Side, two-handed carry of large laminate panel

If you have any questions, and/or would like to discuss this assessment and report further, I can be reached at (780) 429-4761.

Sincerely,

Terilyn Miranda, M.Sc.OT, B.H.Sc
Occupational Therapist

SITE SPECIFIC JOB DEMAND ADDITIONS:

Job Demand	Frequency					Details/Measurements
	N/R	R	O	F	C	
Site Specific Job Demand:						

Validation Agreement

Job Title:	Cabinet Maker
Data Collection Date:	November 24, 2020

We the undersigned have reviewed the Physical Demands Analysis for this position and agree that the physical demands documented in this report are representative of the true demands of the tasks associated with the job title as assessed on the date listed above.

Completed by:	Terilyn Miranda, M.Sc.OT, B.H.sc Occupational Therapist	Lifemark Clinician Name and Designation
Approved by:		Management Representative
Approved by:		Worker Representative
Approved by:		Labour Provider Representative