Anti-Fatigue Matting Selection and Placement SOP

1.0 Objective & Intent

This SOP establishes the safety protocols for the selection, placement, and maintenance of anti-fatigue matting in all standing workstations within the cabinet and millwork manufacturing facility. The primary objective is to reduce the risk of musculoskeletal injuries (MSIs) caused by prolonged standing on hard concrete or wood floors, including lower back pain, leg fatigue, and joint strain, in compliance with WorkSafeBC's Ergonomics (MSI) Requirements (OHS Regulation Part 4.46-4.53). This procedure mitigates the specific hazard of cumulative trauma from static standing postures and prevents slip/trip incidents by ensuring matting is properly secured and maintained.

2.0 Operational Scope

This procedure applies to all production, assembly, finishing, and packaging areas where employees stand for more than two continuous hours per shift. It covers all personnel including operators, assemblers, finishers, material handlers, and maintenance staff. This SOP governs the selection criteria for matting materials (e.g., nitrile rubber, vinyl, foam), placement guidelines for workstations (e.g., saws, sanders, assembly tables, spray booths), and inspection/replacement schedules. It does not apply to seated workstations or areas where mobile equipment (forklifts, pallet jacks) operates, unless specifically designated with heavy-duty matting rated for such traffic.

3.0 Hazard Identification & Mandatory PPE

- Ergonomic Strain: Prolonged standing on hard surfaces causes lower back pain, leg fatigue, varicose veins, and joint stress.
- Slip/Trip Hazard: Loose, curled, or wet mat edges can cause falls; improper mat-to-mat transitions create trip points.
- Chemical Degradation: Exposure to solvents, adhesives, or finishes can break down mat materials, creating sticky or slippery surfaces.
- Fire Hazard: Certain foam mats are flammable; must be rated for industrial use and kept away from ignition sources.
- Cumulative Trauma: Insufficient mat thickness or improper placement fails to reduce fatigue, leading to MSIs.
- CSA-Approved Steel Toed Boots (with slip-resistant soles)
- Safety Glasses (required when cutting or trimming matting)
- Cut-Resistant Gloves (when handling matting with sharp edges or cutting tools)
- High-Visibility Vest (if placing matting in active traffic areas)

4.0 Required Safety Equipment & Tools

- Anti-fatigue matting (nitrile rubber or vinyl, minimum 3/4 inch thickness, beveled edges, slip-resistant surface, chemical-resistant if near solvents)
- Measuring tape (for accurate workstation footprint)
- Utility knife with retractable blade (for trimming mats to fit)
- Straight edge or metal ruler (for clean cuts)
- Double-sided mat tape or anti-slip mat underlayment (to secure mats to floor)
- Mat ramp or transition strip (for doorways or changes in floor level)

- Floor cleaner and degreaser (for preparing subfloor before placement)
- Inspection checklist (for weekly mat condition audits)

5.0 Step-by-Step Safety Procedure

1. Conduct a workstation ergonomic assessment: identify all standing workstations where employees spend more than 2 continuous hours per shift. Measure the work area footprint (length and width) and note any obstructions (machine bases, columns, drains).
2. Select the appropriate matting material based on the hazard assessment: use nitrile rubber or vinyl mats with a minimum thickness of 3/4 inch (19 mm) for general assembly areas; use chemical-resistant mats (e.g., nitrile) in finishing and adhesive areas; use anti-static mats near sensitive electronic equipment. Ensure mat has beveled edges on all sides to reduce trip risk.
3. Verify the matting is certified for industrial use and meets CAN/ULC-S102 (flame spread) or equivalent fire rating. Do not use residential-grade foam mats in production areas.
4. Prepare the floor surface: sweep and degrease the area where matting will be placed. Ensure the floor is dry, clean, and free of debris, oil, or moisture that could prevent adhesion or cause slipping.
5. Position the matting in the workstation: lay the mat flat without folds or wrinkles. Ensure the mat extends at least 12 inches beyond the employee's typical standing zone (front, back, and sides) to allow for natural movement. For assembly lines, place mats in a staggered pattern to avoid creating continuous trip edges.
6. Secure the matting to the floor using double-sided mat tape or anti-slip underlayment. Apply tape along the entire perimeter and in an X-pattern across the center. Press firmly to ensure full adhesion. For mats larger than 4x6 feet, use additional tape strips every 2 feet to prevent buckling.
7. Trim excess matting using a utility knife and straight edge. Cut mats to fit around machine bases, columns, or other obstructions with a maximum gap of 1/4 inch. Bevel cut edges at a 45-degree angle to reduce trip hazard. Dispose of cut-off pieces immediately.
8. Install transition ramps or strips at any point where matting meets a different floor surface (e.g., concrete to tile, doorway thresholds). Ensure the ramp slope does not exceed 1:12 (rise:run) and is securely fastened to both surfaces.
9. Conduct a walk-through inspection: verify that all mat edges are flush with the floor, no curling or lifting is present, and there are no trip points at seams or transitions. Have the workstation operator stand on the mat for 30 seconds to confirm comfort and stability.
10. Document the installation: record the workstation location, mat type, installation date, and inspection results on the SafeDesk digital checklist. Schedule weekly visual inspections for mat condition (tears, curling, chemical damage) and replace any mat that shows signs of degradation or creates a trip hazard.