

4123:1-5-05 Auxiliary equipment.

(A) Reserved.

(B) Reserved.

(C) Power-driven conveyors – chain, bucket, belt, hook and screw.

(1) Horizontal, overhead, vertical and inclined conveyors.

(a) Overhead protection.

Where overhead conveyors carry material with a clearance of seven feet or more above the floor level, and cross designed walkways or roads, or pass over areas where employees are normally at work, a substantial barrier shall be installed to catch falling material.

(b) Screw conveyors.

In addition to the requirements of paragraph (C)(1)(a) of this rule, the auger of screw conveyors shall be operated with covers secured in place. Covers shall be solid or of wire mesh, in accordance with rule 4123:1-5-99 of the Administrative Code, and covers designed for regular removal shall be interlocked so that removal will disconnect power source.

(2) Conveyors exposed to contact.

All conveyors, where exposed to contact, shall be equipped with means to disengage them from their power supply at such points of contact.

(3) Safe means of passage.

Where employees are required to cross conveyors, a fixed platform equipped with standard guard railing and toeboards shall be provided.

(4) Pinch (nip) points.

Pinch points created by travel of conveyor belts over or around end, drive and snubber, or take-up pulleys of chain conveyors running over sprocket wheels shall be guarded or a means shall be provided at the pinch point to disengage the belt or chain from the source of power.

(D) Machinery control.

(1) Disengaging from power supply.

Means shall be provided at each machine, within easy reach of the operator, for disengaging it from its power supply. This shall not apply to rolling departments of iron and steel mills nor to electrical power generation or conversion equipment.

(2) When machines are shut down.

The employer shall furnish and the employees shall use a device to lock the controls in the "off" position or the employer shall furnish and the employees shall use warning tags when machines are shut down for repair, adjusting, or cleaning.

(3) Mechanical belt shifters.

Tight and loose pulleys shall be equipped with mechanical belt shifters.

(a) Cone pulley drive belts.

Cone pulley drive belts shall be equipped with a mechanical belt shifter permanently attached.

(b) Where any part of the lower cone pulley is seven feet or less above the floor, the belt and pulley shall be guarded.

(4) Treadles or extensions.

Treadles or extensions for starting machinery shall be so located or guarded as to minimize accidental tripping.

(E) Anchoring and mounting of machinery.

(1) Stationary machinery.

All stationary machinery shall be positioned or installed on floors or foundations so to prevent walking, moving, or tipping.

(2) Portable machinery.

Portable machinery mounted upon trucks or bases shall be securely fastened thereto, and such truck or base shall be so locked or blocked as to prevent movement or shift while such machine is in operation.

(F) Counterweights.

Counterweights exposed to contact shall be guarded, or secured with safety chain or wire rope so the counterweight shall not descend to a level less than eight feet above the floor or working level, where employees are required to perform their assigned duties or where employees are required to pass through in the performance of their assigned duties.

(G) Grounding of electric-powered equipment.

(1) Application.

This paragraph applies only to grounding of non-current carrying parts.

(2) Permanent equipment.

All permanently installed equipment and machinery connected to electric circuits in excess of eighty volts shall be permanently grounded.

(3) Portable electric tools.

Portable electric tools and equipment shall be provided with a means of grounding or shall be protected by a system of double insulation. Where such approved system is employed, the equipment shall be distinctively marked.

(H) Feed rolls.

Power-driven feed rolls, when exposed to contact, shall be guarded so as to prevent the hands of the operator from coming into contact with in-running rolls at any point.

(I) Fan blades.

(1) Guarding.

When the periphery of the blades of a fan used for direct ventilation or cooling of employees, such as desk fans, pedestal fans, and wall fans, is less than seven feet above the floor or working level, the blades shall be guarded. The guard shall be firmly attached to its mount so that it is either permanently affixed, or tools are required for removal, or, in the case of spring-type fasteners or wingnuts, sufficient force is required for removal so that the guard device is not inadvertently removed.

(2) Guard openings.

Any opening in a guard shall have at least one of its dimensions no greater than one inch and the distance from the guard to the blade shall be equal to or greater than the values listed in the following table to this rule.

(3) Other fans.

Other fans, such as those used in process cooling, whose blade is less than seven feet above the floor or working level, shall meet the requirements of rule 4123:1-5-99 of the Administrative Code. The distance from the guard to the blade must be sufficient to prevent any part of any employee's body from inadvertently contacting the blade.

Table 4123:1-5-05(I)(2)
SIZE OF OPENING IN GUARD

| <u>Smallest dimension in guard (inches)</u> | <u>Minimum distance from guard to blade</u> |
|--|--|
| Greater than 3/4 up to 1, Inclusive..... | 6 times the smallest dimension. |
| Greater than 1/2 up to 3/4, Inclusive..... | 4 inches. |
| Greater than 3/8 up to 1/2, Inclusive..... | 2 1/2 inches. |
| Greater than 1/4 up to 3/8, Inclusive..... | 1 1/2 inches. |
| Greater than 0 up to 1/4, Inclusive..... | 1/2 inch. |

(J) Steam pipes (pressure pipes).

All steam pipes shall be covered where exposed to contact. Pipe supports or other effective means shall be provided to prevent failure from vibration, expansion, or contraction.

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