

Conveyor System Safety*

Conveyor Systems are mechanical devices or assemblies that transport material with minimal effort. While there are many different kinds of conveyor systems, they usually consist of a frame that supports either rollers, wheels, or a belt, upon which materials move from one place to another. They may be powered by a motor, by gravity, or manually.

Why is it important?

Conveyors replace manual transport processes to create more reliable, ergonomic, and organized operations. But with benefits there also come hazards. New and young workers are regularly injured (injury to hand, lacerations, fractured arm, amputated finger, etc.) and even killed when working around or on conveyor systems. These conveyor systems can pull you into the machine extremely quickly.

Associated risks/hazards

The following are some hazards with conveyor systems:

- Body parts, hair and clothing entangled in rotating shafts, and pinch points
- Objects falling off the conveyor and striking the worker
- Objects drawing worker into the conveyor pinch points or rotating parts
- Static electricity charge causing an ignition of flammables present
- Potential for fire caused by defective or poorly maintained equipment e.g., seized bearing or combustible items contacting moving parts causing friction fires

- Musculoskeletal injury caused by poor posture while working removing or adding items to conveyors, or cleaning underneath

Preventive next steps

1. Only use conveyor systems that meet ANSI standard B20.1-1993, see Occupational Health and Safety Regulation (OHSR) section 12.22.
2. Only use conveyor systems if you have been trained and authorized, see OHSR section 4.10(2).
3. No horseplay on or around a conveyor system e.g., do not ride, sit, stand, walk, ride on, or touch an operating conveyor system.
4. Install warning lights or horns to warn workers that a conveyor system will be starting.
5. Do not have any loose clothing e.g., hoodie or hair that can be entangled in the conveyor system.
6. Keep the work area around the conveyor system clear of hazards that could cause a worker to slip, trip, or fall into a conveyor system.
7. Where possible, either adjust the conveyor system or the workstation to improve ergonomics, see OHSR section 4.50.

8. Never remove guards off a conveyor system while it is running, see OHSR Part 12.
9. If the feed point of a conveyor cannot be guarded because of the work process, use a suitable device or tools to prevent workers from contacting moving parts of the conveyor system, see OHSR section 12.25. Do not use a D-handle shovel.
10. Know where emergency shutoff buttons or pull wires are located.
11. Always shutdown, de-energize, and lockout conveyor systems before clearing jams or repairing the system, see OHSR Part 10.
12. Ensure conveyor systems are kept maintained and clean. Develop Safe Work Procedures for these tasks.



For additional resources visit:

[Working safely with conveyors video](#) | SafeWork New South Wales

[Warehouse Safety Tips – 6 Conveyor Safety at your facility video](#) | Workplace Safety & Prevention Services

[Occupational Health and Safety Regulation Part 4.10, 4.50, Part 10, Part 12](#) | WorkSafeBC

[Conveyor hazards in shake and shingle mills](#) | WorkSafeBC

