

Work Safe Bulletin

Double Trowels on Elevated Slabs

The Cement Finishing Labour Relations Association represents the labour relations and safety interests of the cement finishing industry across Ontario.

The purpose of this document is to provide specific hazard information and promote discussion of safe work practices.

This bulletin does not contain a full analysis of the law, nor does it constitute a legal opinion. The CFLRA is not liable for any damages resulting from the use of this information.

If you have any questions, please feel free to contact us at 289-837-1627 or by e-mail at info@cflra.ca

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Background:

The operation of double float/trowel machines is becoming more commonplace in elevated slab construction. This equipment is commonly used on larger slab placements and also to produce flat floor tolerances.

Hazard Concern:

Guardrails may not be strong enough to stop the travel of this equipment when in full motion. Slab protrusions may catch the trowel or float edge and cause the machine to kick-back suddenly.

Recommended Operational Procedure:

Each project has unique characteristics that require careful consideration. It is strongly recommended that this issue be discussed at the preconstruction meeting with your safety representative. To reduce the possibility of an incident, it is recommended that the following be considered:

- Only trained cement finishers shall operate a single trowel finishing machine.
- The “dead-man” switch shall be checked prior to starting work each day, and by each operator of the machine prior to its operation (the machine should stop quickly upon its release)
- A “no-ride” zone should be considered which minimizes or eliminates the operation of the double trowel near the slab edge or large slab openings. Single trowel machines should be used to perform finishing operations in this “no ride” zone (see WSB Single Trowels on Elevated Slabs) .
- The operator should approach the slab edge or “no-ride” zone at an angle of 45° or less (whenever possible).
- When travelling beside the slab edge or “no-ride” zone, the operator should keep the machine perpendicular (90°) to the slab edge (or opening) at all times (the operator should not face directly toward or away from the slab edge).
- The operator should not drive in reverse towards the slab edge or a large slab opening at any time.
- The operator should reduce the speed of the double trowel machine as it approaches the slab edge or large slab opening. The speed of the trowel machine shall be moderated as necessary to allow for the safe operation of the double trowel under each particular site condition.
- The operator shall not be tied to, or restrained by, the equipment.

Further references:

- [Ontario Regulation 213 for Construction Projects](#)
- Equipment manufacturers operation / instruction manual.

