

Rope Swing

Lifesaving Society Standard Approved by the Ontario Board of Directors, January 2024

Standard

Operators should ensure they implement safety standards regarding the operation of rope swings, particularly involving water depth, safety features, posted rules, supervision and inspection.

Background/Rationale

Tarzan ropes in indoor swimming pools operate like a pendulum. The fulcrum of the pendulum is mounted in one of the roof's supporting structures, above the water surface at a point roughly 3–5 m inside the pool edge. The rope is held at a point in its arc at the edge of the deck (i.e., the launching point).

The height that the launching point is above the surface of the water is referred to as the launching point elevation. In most cases, the launching point elevation is the pool deck surface. In fewer cases, a modest platform is used to raise the launching point elevation.

Bathers begin their swing from a standing launch position and extend to the furthest point of the arc (the point just before the rope starts to swing back again). The bather then releases the rope and enters the pool feet first.

The height above the water at which the bather releases the rope depends to a large extent on the launch point elevation. The higher the launch point elevation, the greater the arc, the higher the bather releases above the water surface. Although bathers generally drop foot first into the water, some may purposely or accidentally rotate into a head-first entry. In order to ensure safety, minimum water depths are specified below potential entry points.

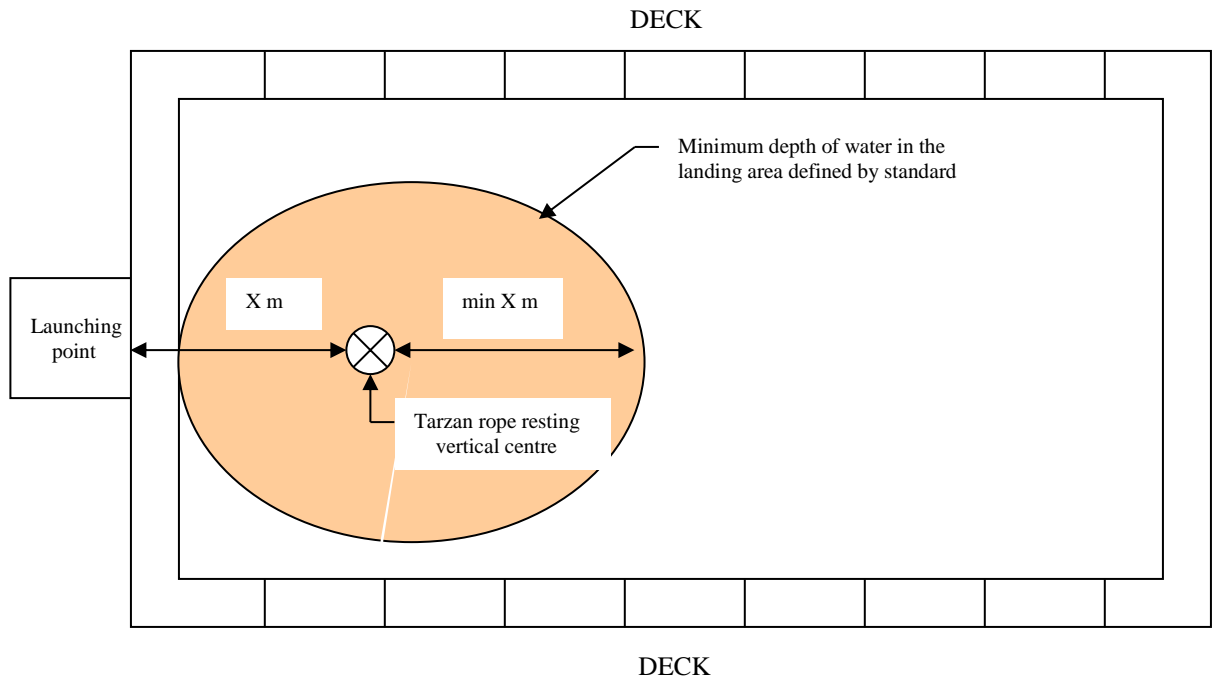
Implementation

Operators should consider the following when operating a rope swing:

Water depths

The landing area (see diagram) captures a range of water entry points, including points close to the deck due to bathers slipping from the rope early in the swing, the maximum extension expected from a straight arc swing and, to a lesser extent, some allowance for prohibited angular swings. The landing area extends into the pool at least to the furthest point in the swing arc, which is the distance from the straight rope vertical resting point to the launching point. The minimum depth of water in this defined area shall be not less than¹:

- a) 2.75 m where the bather starts from a launching point elevation that is not more than 60 cm above the water surface.
- b) 3 m where the bather starts from a launch point elevation that is greater than 60 cm but not more than 1 m in height above the water surface.



¹ The water depths standards are from the 1997 Ontario Building Code (Section 3.11.4)

Safety Features

1. Ensure a secondary attachment system that will temporarily support the Tarzan rope should the primary support mechanism fail.
2. Designate a safe landing zone through the use of a buoyline that encompasses at least the landing area. Where the landing area intercepts other facility features or pool activities, such as diving boards or a swim instruction class, barrier off these other features or activities to prevent collisions between bathers and Tarzan rope users.
3. Ensure that only one knot is located on a Tarzan rope, located near the bottom of the rope. This should discourage bathers from attempting to climb the rope.
4. Launch points shall be clearly identifiable on the pool deck (e.g., non-slip floor). While most launching points are expected to be the pool deck surface, an elevated launching point can be provided with a platform, provided:
 - a. the maximum elevation from the water surface to the surface of the platform (i.e., the launching point elevation) is 1.0 m
 - b. the platform and any steps have non-slip surfaces
 - c. the platform has at least one handrail

Posted Rules

The Tarzan rope rule sign should be posted on a secure vertical surface adjacent to the Tarzan rope. Letter sizes shall conform to the requirements of O. Reg. 565 (Public Pools). The sign should contain the following messages:

1. Bathers using the Tarzan rope are required to follow these rules.
2. Bathers must pass the facility swim test and have sufficient strength to support themselves when holding onto the rope.
3. Bathers must be supervised by a lifeguard when using the Tarzan rope.
4. Only one bather shall use the rope at one time.
5. Bathers are not permitted to climb the rope.
6. Bathers shall ensure the landing area in the pool is clear before swinging.

7. Bathers shall begin their swing from a standing launch position. Bathers are not permitted to run into a swing, or be “pushed off” by another bather.
8. Bathers shall swing straight out and then release, entering the water foot-first only. No rotations or flips are permitted.
9. Bathers shall promptly exit the landing area after entering the water.

Supervision

A lifeguard shall supervise the safe use of the Tarzan rope, enforce posted rules, and respond to emergency situations. In most facilities, the lifeguard retrieves the rope with a hooked pole and prepares it for the next bather. The lifeguard shall not be assigned other facility supervision activities while the Tarzan rope is in use.

Inspections

Operators should carry out the following inspections of their Tarzan ropes:

1. Inspect the rope daily for wear and single-knotting.
2. Visually confirm daily that the rope is securely attached, and a secondary support mechanism remains in place.
3. At least annually, have a comprehensive inspection of the “rope security system” conducted by a qualified person, such as the original installer of the system². Records of satisfactory annual inspections shall be available for viewing by a public health inspector.

The Lifesaving Society recommends operators include this position in their facility policy and procedures manual, and staff handbooks.

All staff should review this position and its application at least once a year during staff training sessions, or better, update and refresher sessions should be scheduled regularly throughout the year. A training record should be maintained listing aquatic staff who have participated in the training.

² The annual inspection may be included in a maintenance contract with the installer of the security system. In this case, the maintenance contract should be available for viewing by a public health inspector.

References

- Ontario Building Code
- Ontario Health Regulation 565
- *Alert: Lifeguarding in Action*

Disclaimer

Lifesaving Society Safety Standards are developed using Coroners' recommendations, the latest evidence-based research, and reflect the aquatics industry's best practices at the time the publication was approved.

The purpose of these standards is to encourage swimming pool, waterpark and waterfront owners, managers, operators and regulators to adopt these standards, in order to prevent drownings in aquatic environments.

Lifesaving Society Safety Standards do not replace or supersede local, provincial/ territorial legislation or regulations, but they are considered the standard to which aquatic facility operators should work towards, in order to enhance safety within their operations and to prevent drowning.

Lifesaving Society Ontario
400 Consumers Rd., Toronto, Ontario, M2J 1P8
Tel: 416-490-8844 Fax: 416-490-8766
Email: experts@lifeguarding.com
lifesavingsociety.com