

CST Winding Stair System

Technical Data Sheet

CST

AQUASTORE®

TecTank™

HARVESTORE®



CST's Winding Stair System is the premium alternative to fixed ladders allowing easier access to inspect and maintain equipment located on the deck. The staircase is shipped as individual parts and field assembled. It can be installed ascending to the left or the right and features a continuous handrail.

Built with corrosion resistant galvanized carbon steel, it's perfect for complex industrial applications. Because CST's Winding Stair System is field assembled, the bolt together construction is perfect for situations that limit or prohibit hot-work or welding.

Design Benefits Include:

- OSHA Compliant
- Bolt Together Construction (No Welding Required)
- Fast & Easy Installation
- Easily Retrofitted to Existing Tanks
- Minimal Footprint at Grade
- Stair Platform Included at Tank Eave
- Includes a Top & Intermediate Guardrail and a Separate Handrail
- Flexibility for Custom Applications
- Strength & Stability
- Made In the USA

Custom applications are no problem for our stairway systems. We can work around space limitations, obstructions like manways, electrical panels, piping, equipment and more with a custom configuration and specially sized stair landings to achieve the access needed in the space available.

CST Stairway Systems	Standard Tank Wall Clearance	
	6 in. Max	12-1/8 in.
Outside Stair Rail Only	30 in. or 36 in.	N/A
Inside / Outside Stair Rail	36 in.	36 in.

Note: Tank wall clearance is dependent on location of ancillary equipment or structures near the tank wall. Inside stair rail required with wall clearance greater than 6-inches. Inside stair rail can be provided upon customer request regardless of wall clearance, however, requires 36-inch tread width with the use of both an inside / outside stair rail.



FAQ's Regarding OSHA Regulations:

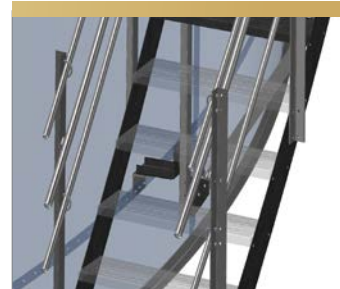
OSHA is phasing out the practice of the top rail of a stair rail system also serving as the handrail as part of recent changes to 29 CFR 1910, Subpart D. The following list provides answers to frequently asked questions regarding these changes and other OSHA regulations specific to winding stairs.

- OSHA defines a stair rail system and a handrail differently, and the requirements for each can be different
 - A stair rail system is defined as a barrier erected along the exposed or open side of stairways to prevent employees from falling to a lower level
 - A handrail is defined as a rail used to provide employees with a hand held support
- Handrail and stair rail system height criteria as measured from the leading edge of the stair tread to the top surface of the top rail
 - Handrails are not less than 30-inches and not more than 38-inches
 - The height of stair rail systems installed before January 17, 2017 is not less than 30-inches
 - The height of stair rail systems installed on or after January 17, 2017 is not less than 42-inches, and no more than 45-inches
 - The top rail of a stair rail system may only serve as a handrail when the height of the stair rail system is not less than 36-inches and not more than 38-inches
- The minimum finger clearance between handrails and any other object is 2.25-inches and handrail shall be smooth surfaced
- Stair rail systems are at least 1/4-inches in diameter or thickness and able to withstand a 200-pound load in any direction and deflect no more than 3-inches
- Winding stairs shall have a minimum clear width of 26-inches
- For stair widths less than 44-inches, at least one handrail and one stair rail system is required
- If the tank wall and stairway are adjacent to each other to form an enclosure that would prevent a person from falling (having a gap less than 12-inches), then a stair rail system and handrail is only required on one side
- Maximum tread height is 9.5-inches, the angle to the horizontal must be between 30 and 50-degrees
- Intermediate stair platforms are not required

For more information call +1 844-44-TANKS or visit us online at www.cstindustries.com.



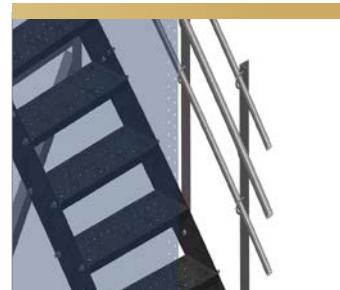
➤ 6 in. Tank wall clearance, outside guardrail system, 30 in. tread width



➤ 12-1/8 in. Tank wall clearance, outside and inside guardrail system, 36 in. tread width



➤ Stair platform included at tank eave, additional intermediate landings can be provided at request



➤ All stair rails are OSHA compliant and includes a top and intermediate guardrail and a separate handrail



➤ Handrail bracket provides 2-3/4 in. minimum clearance with covered splice and end caps eliminating sharp edges