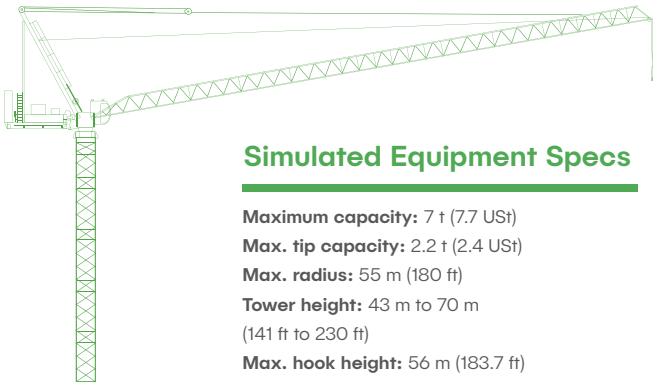
Luffing Tower Crane Training Pack



Simulated Equipment Specs

Maximum capacity: 7 t (7.7 USt)
Max. tip capacity: 2.2 t (2.4 USt)
Max. radius: 55 m (180 ft)
Tower height: 43 m to 70 m (141 ft to 230 ft)
Max. hook height: 56 m (183.7 ft)

Overview /

The Vortex® Luffing Tower Crane (LTC) Training Pack is part of CM Labs' catalogue of Vortex construction training packs. From controls familiarization to erecting a steel structure, student operators who train with Vortex simulators develop the experience, skills, and worksite awareness they need to master safe operations, while reducing training costs by up to 75%.

Key features & benefits /

With the LTC Training Pack, student operators learn to work in a dense urban environment. With safety as a key concern, the LTC training pack provides the opportunity to gain experience transferable to the real world and develop skills, without any risk to the crane, themselves, or others.

A progressive learning program covering skills such as pendulum control, load management, and concrete pouring.

Performance metrics and reporting that provides student operators with feedback on their operating and lifting skills.

Best-of-class luffing tower crane simulation that ensures real skills development that can be transfered to the real crane.

Crane simulation

The LTC Training Pack provides the first-ever simulator-based solution for teaching safe and efficient operation of luffing tower cranes. This training pack includes a series of progressive exercises designed to promote the skills needed to efficiently operate a luffing tower crane in the confined workspaces of an urban environment.

Simulation of the crane is built on the proven Vortex Studio simulation software. The simulated mast and jib bend and torque according to the weight of the load, dynamic movements, and actual crane characteristics.

All rigging and hoisting cables are simulated from the load to the drum using actual engineering properties, so that they behave appropriately as lines are placed under tension or the load is released. All loads pendulum, snag, and collide just as they would in the real world, providing valuable experience to student operators without endangering them or others.

Vortex simulators provide leading worksite visuals; the view from the cab accurately matches the view inside a real crane. Cars, planes, pedestrians, and trains pass through the worksite as visual distractions to promote situational awareness. An in-cab LMI is displayed on a touch screen mounted to the right of the operator chair, and displays key information as well as additional controls.

Supported Vortex Hardware Platforms

The Vortex Luffing Tower Crane Training Pack can be installed on any Vortex simulator hardware platform, with different configurations to meet your budget, space, and training requirements. Vortex simulators are built to last, designed for years of 24/7 operator training.

Vortex Edge laptop-based instructional platform

Vortex Trainer portable single-display trainer

Vortex Advantage with one, three, or five immersive displays

Learning program

The Luffing Tower Crane Training Pack features progressive learning exercises—from beginner to advanced—designed to gradually build student operator skill and confidence:

- ✓ Understand the controls, start up and shutdown
- ✓ LMI configuration and alarms
- ✓ Hook and load management and pendulum control
- ✓ Adverse conditions: differing times of day, night work, and wind and weather
- ✓ Unload materials on the worksite
- ✓ Move loads within the building site
- ✓ Erect steel structures and concrete panels
- ✓ Work at different mast heights
- ✓ Practice CCO and CPCS test courses

Performance measurement

The LTC Training Pack gives instructors objective insight into student operator performance and abilities.

Instructors can measure key operator performance metrics such as:

- ✓ Tasks completed and time
- ✓ Pendulums and time in pendulum
- ✓ Load or hook collisions
- ✓ Contacts with objects or humans
- ✓ Rough load handling
- ✓ CCO test violations
- ✓ Time in alarm conditions
- ✓ Instructor comments and bookmarks

The student management system allows instructors to generate reports from crane training sessions, and review current and past performance.

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