

Division 14 42 00 (14420)
Vertical Platform Lift Model HCDE

Technical Specifications

January 2009

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. All materials and labor necessary to complete the installation of the vertical platform lift.
B. Obtain all information affecting work at job site. Include verification of field dimensions, anchoring and storage. Verify voltages and outlets on electrical drawings.

1.02 REFERENCES

- A. Unit shall be designed and manufactured in accordance with the ICC/A117.1, NEC and ASME A18.1 Guidelines for vertical platform lifts in public places.
B. All designs, clearances, construction, workmanship and installation shall be in accordance with the requirements and code adopted by the authority having jurisdiction. The platform lift shall be subject to local, city and state approval prior to and following installation.

1.03 SYSTEM DESCRIPTION

- A. The product described herein manufactured by National Wheel-O-Vator, is a Vertical Platform Lift consisting of a machine tower with lifting platform, selected and dimensioned to provide adequate lifting height to suit the individual building requirements. The lift can be used either indoors or outdoors to vertically transport a wheelchair user or mobility-impaired person up and over a barrier thus creating access to or within a building.
B. Performance
1. Rated Load: 750-pound capacity
 2. Travel Speed: 20 feet per minute
 3. Lifting Height: _____
 4. Platform Size: 37" x 51", with non-skid surface

1.04 SUBMITTALS

- A. Submit drawings or manufacturers literature for approval. Drawings shall show dimensional and wiring requirements.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company with not less than twenty (20) years of experience in the design and fabrication of vertical platform lifts.
B. Technical Services: Manufacturer and authorized dealer shall work with architects, engineers and contractors to adapt the platform lift product to the design and structural requirements of the building, site, and code requirements.

1.06 WARRANTY

- A. Unit shall have a four (4) year limited parts warranty on the basic unit, including all electrical and drive system components.

1.07 MAINTENANCE

- A. Maintenance of the platform lift unit shall consist of regular cleaning of the unit and regular inspection at intervals not longer than every 6 months. Rule 10.2.1 of ASME A18.1 requires all Vertical Platform Lifts be inspected every six (6) months.

PART 2 – PRODUCT

2.01 MANUFACTURER

- A. National Wheel-O-Vator a division of ThyssenKrupp Access, Model HCDE as distributed
By _____

- B. No substitution shall be considered unless written request for approval has been submitted and received by the architect at least ten (10) days prior to the bid date.

Each substitution request shall include the name of the material for which it is to be substituted and a complete description of the proposed substitutions including drawings, performance and test data, a list of projects similar in scope, photographs of existing installation, design differences and other information necessary for evaluation.

2.02 FABRICATION

- A. Platform shall be constructed of 12-gauge minimum zinc clad steel. If unit is not installed in a 3-inch pit, a stationary ramp shall be provided that extends under the lower landing gate/door.
B. Platform side panels must be 42" high. Side panel framework shall be a minimum of 1" x 1 1/2" x .065 steel tubing for indoor units and 1 x 1 1/2 x .125 aluminum tubing for outdoor units. Solid infill panels shall be a minimum of 24-gauge zinc clad steel.
C. The mainframe support tubing shall be a combination of square and rectangular tubing with a minimum .120 wall thickness.
D. Carriage platform supports shall be a minimum of 1" x 2" wide steel flat bar and carriage uprights shall be a minimum of 1/2" thick steel flat bar. Cam rollers shall be used for axial carriage guidance and cam followers with wear pads shall be used for horizontal stability. Cam rollers shall be supported by a minimum 6.25#/ft. "T" rail.
E. Loaded fasteners shall be grade five or higher. Locking fasteners shall be used in all critical locations.
F. The removable machine tower sides shall be of 18 gauge zinc clad steel, front and back covers of a minimum of 18 gauge zinc clad steel minimum. The machine tower shall be one piece. As an option the tower can be split at 69" from the bottom.
G. Drive means shall be 1:2 roller chain hydraulic equipped with a type "A" instantaneous slack chain safety device. The safety device linkage shall be made of stainless steel.
H. The hydraulic connections shall be metal and have rated pressures that withstand the working pressure times the appropriate safety factor.
I. The operating control circuit shall be 24 volt.
J. Finish shall be electro statically applied powder coating, oven baked to cure.
K. The control system and optional batteries shall be serviceable with platform at bottom landing without need to remove platform side panels.
L. Color shall be selected from manufacturer's standard color or optional colors.
M. A constant pressure up/down control switch shall be installed at each landing level and on the platform.
N. Lift shall have an enclosure framework of 1 1/2" square steel tubing for indoor units, 1 1/2 square aluminum tubing for outdoor units and shall have enclosure panels of 18 gauge zinc clad steel minimum. The enclosure shall extend a minimum of six (6) inches above the actual lifting height of the unit, which prevents access to the underside of the platform.

- O. Lift shall be equipped with a 42” minimum high upper landing gate, 42” high platform gate which rides on the platform and a lower landing gate which remains at lower level to prevent access to the underside of the platform while in the raised position. Gate framework is steel tubing for indoor units, aluminum tubing for outdoor units with solid panels of 18-gauge zinc clad steel minimum. The platform gate may be eliminated if the entire enclosure and lower gate extends a minimum 42” above the lift height. All gates shall have combination mechanical lock with positive opening electrical contacts.
- P. An emergency stop / illuminated alarm switch shall be provided on the car as a means of signaling for assistance in the event of an emergency. The alarm shall also sound if a gate/door lock fails to latch.
- Q. A grab rail shall be provided on the platform.
- R. The lift shall use 120V single phase as its standard power supply. 208V or 240V single phase input is also available as it’s power source.
- S. Thy hydraulic pump unit shall include a 24 Volt DC motor with an adequate size oil reservoir for full piston stroke.
- T. A manual lowering device shall be located at top of tower on upper landing side.
- U. Unit to be equipped with the “simplex” base and carriage design, which allows the carriage to be folded to reduce the shroud and carriage width to 19”, for ease of installation, without removal of any carriage attaching bolts.
- V. Unit must be assembled and tested in factory before shipment.

2.03 ACCESSORIES

SPECIFIER PLEASE NOTE – Due to different applications of Vertical Platform Lifts, please strike the optional items shown if not used.

- A. A 24V DC, fail secure electric strike that contains electric contacts to insure the door is both closed and locked shall be provided. (This option is required when flush mounted door and frames are provided by others. Modify 2.03 O.)
- B. Optional platform configurations.
90 degree; enter exit same side; 3 level –
Power operators required by – A117.1.
Larger platform may be required by (A.H.J.). (Modify or delete 1.03 B4.)
- C. Optional batteries for standby lowering only or standby raise/lower can be supplied. A 3 stage waterproof charger shall keep batteries ready for standby.
- D. The battery system shall have a lockable DC rated disconnect between the batteries and pump. (provided by mfg or dealer at extra cost)

PART 3 - EXECUTION

3.01 ACCEPTABLE INSTALLERS

- A. Subcontractor Qualifications: A company that is listed as an authorized National Wheel-O-Vator dealer.
- B. Electrical devices, services and final connections shall be by a qualified electrician.

3.02 INSTALLATION

- A. Unit shall be installed and operated in accordance with the ICC/A117.1, NEC and ASME A18.1 Guidelines.
- B. A dedicated 120 VAC, 20 Amp. electrical circuit with a lockable service disconnect switch shall be supplied by the electrical contractor at job site. For 208V or 240V units, a 15amp.

dedicated circuit may be supplied. (Depending on local electrical codes, a G.F.I. device may be required.)

- C. Coordinate work with general contractor.
- D. Leave standard electrical connection drawings with electrical contractor to make final electrical connection.
- E. The installation of the vertical platform lift shall be made in accordance with the approved plans and specifications and the manufacturers installation instruction.

3.03 FIELD QUALITY CONTROL

- A. Load the vertical lift to rated capacity and test for several cycles to insure proper operation. No mechanical failures shall occur and no wear that would affect the reliability of the unit shall be detected.

For more details, call National Wheel-O-Vator’s Design Line 800-968-5438.