

Specifications:

Typical Hydraulic Vertical Platform Lift - Model V1504-STD

1.0 GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of the Contract, including instructions to Bidders, Supplementary instructions to Bidders, General Conditions, and Specification Sections apply to work of this Section.

DESCRIPTION:

- A. Work described in this section includes providing equipment, incidental material and labour required for a complete, operable hydraulic platform lift installation. Where singular reference is made to lifts or lift components, such reference shall apply to number of lifts or components required to complete installation. This specification provides a broad outline of required equipment and does not describe the details of design construction. Lifts shall be erected, installed, adjusted, tested and placed in operation by lift system manufacturer, or manufacturer's authorized installer.
- B. Lifts shall be in accordance with the CAN/CSA B355 Lifts For Persons With Physical Disabilities.
- C. The Lift described here, manufactured by Savaria Corporation Inc., is a vertical platform lift consisting of an hydraulic tower with a lifting platform and an aluminum enclosure with plexiglass inserts. The platform can be customized to better accommodate a wheelchair user or a person with impaired mobility. The lift can be used indoors or outdoors (with optional package) in commercial or residential applications.

1.2 PREPARATORY WORK BY OTHERS:

- A. The following preparatory work to receive the lifts specified in this section is part of the work by of the work by others.
 - 1. Permanent 20amp 120/1/60 power to operate the lift is to be provided from a lockable fused/cartridge type disconnect switch with an approved (elevator rated) auxillary contact for emergency battery operation. Refer to the drawings for permanent power specifications and location of disconnects. Temporary power may be provided to expedite installation of the lift.
 - 2. Provide plumb and square hoistway with smooth interior surfaces.
 - 3. Provide rough openings per lift contractor's shop drawings.
 - 4. Provide substantial, level pit floor slab as indicated on the lift contractor's shop drawings.

1.3 QUALITY ASSURANCE:

- A. Manufacturer:
 - A company with not less than 20 years of experience in design, fabrication and assembly of vertical platform lifts.
- B. Subcontractor Qualifications:
 - 1. Execute work of this section only by a company with adequate product liability insurance.
 - 2. Skilled tradesmen must be employes of the installing contractor approved by the lift manufacturer, with demonstrated ability to perform work on a timely basis.

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C. REQUIREMENTS FOR REGULATORY AGENCIES:

1. Fabrication and installation work to comply with applicable jurisdictional authorities.
2. File shop drawings and submissions with local authorities as the information is made available. Company pre-inspection and jurisdictional authority inspections and permits are to be made on as timely basis as possible.

D. SUBMITTALS:

1. Shop drawings shall show a complete layout of lifting equipment detailing dimensions as required.
2. The lift contractor will provide physical samples of all items requiring selection or colour finish.

1.4 MAINTENANCE:

- A. The lift shall be cleaned and regularly inspected at intervals no longer than every 6 months.

2.0 Products

2.1 Platform Lift

A. Basic specifications of a Savaria hydraulic vertical platform lift model V1504-PE:

1. Rated Load.....750 lb. (340 kg)
2. Rated Speed.....25 f.p.m. (nominal) (0.13 m/s)
3. Inside Car Dimensions.....34" x 54" (864 x 1372 mm)
4. Number of Levels Served.....Up To 4
5. Number of Openings.....Up To 2
6. Car Access.....Enter From Front Only, or Front/side, or Front/rear
7. Travel.....Up To 23 feet (7000 mm)
8. Controls.....Constant Pressure
9. Power Supply.....15 amp 120/1/60
10. Drive System.....2:1 Roller Chain Hydraulic
11. Paint.....Polyester Powder Coat
12. Emergency Power.....Battery Operation in Down Direction
13. Controller.....Relay Logic
14. Motor/pump.....1.5 hp. (1.12 kw) 110vac
15. Manual Lowering.....Outside Hoistway at Desired Landing
16. Standard Colour.....Almond Beige

B. Car Enclosure:

1. Side Guards of platform shall have a steel frame with a powder coat finish and steel panel inserts to a maximum of 42" (1067 mm) above the upper landing.
2. No platform gate required for ease of operation.
3. Upper gate shall be 42"H (1067 mm) x 36"W (864 mm) with metal or plexiglass inserts and shall be equipped an interlock, spring hinges and a kick plate. The lower door shall be 80"H (2032 mm) x 34"W (864 mm) with metal or plexiglas inserts and shall be equipped with an interlock, hydraulic closer and kick plate on both sides. The inside kick plate shall be made of steel.
4. Lift shall have manufacturer's standard non-skid flooring.
5. The upper landing gate shall have fascia with steel frame and metal insert that runs down to the pit.
6. Doors and gates shall be flush mounted inside the hoistway as to provide pinch points and shear hazzards.
7. A double ventilation system shall be provided when a plexiglass dome is provided.

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8. The aluminum frames forming the enclosure shall be fully assembled and screwed all together from inside the enclosure for ease of assembling and quick installation time.
9. The enclosure shall be water resistant.
10. Handrail: A single handrail with both ends returned to the side guard shall be located on the control wall of the carriage.

2.2 Car Operation:

- A. Car Operating Panel shall consist of constant pressure buttons or rocker switches, emergency stop/alarm button, on/off key switch and emergency light mounted on a removable stainless steel panel (Type 304 #4 Stainless Steel Finish).
- B. Emergency Operation: The car shall be equipped with a battery operated light fixture, emergency lowering device and alarm in case of power failure. The battery shall be rechargeable type with an automatic recharging system. A manual lowering device shall be located outside the hoistway in a lockable box and positioned at a designated landing.

2.3 Pumping Unit And Control:

- A. The pumping unit and control shall be enclosed in the tower. The controller is to be relay logic for ease of maintenance and service and the pump unit shall incorporate the following features:
 1. Smooth stops at each landing.
 2. Adjustable pressure relief valve.
 3. Manually operable down valve to lower the lift in the event of an emergency. This valve shall be activated from outside the hoistway through a keyed box.
 4. Pressure gauge isolating valve, manually operable.
 5. Gate valve to isolate cylinder from pump.
 6. Electrical solenoid for down direction control.
 7. Emergency lowering by battery power, from the car control.

2.4 Cylinder And Plunger:

- A. The cylinder shall be constructed of steel pipe of sufficient thickness and suitable safety margin. The top of the cylinder shall be equipped with a cylinder head with an internal ring and self-adjusting package.
- B. The plunger shall be constructed of a steel shaft of proper diameter machined true and smooth. The plunger shall be provided a stop electrically welded to the bottom to prevent the plunger from leaving the cylinder.

2.5 Roller Chains:

- A. Two (2) #50 5/8" pitch roller chains. Minimum breaking strength of 6100 lb (2773 kg) each.

2.6 Levelling Device:

- A. The lift shall be provided with an anti-creep device which will maintain the carriage level within 1/2" (13 mm) of the top landing.
- B. All limit switch and levelling device switches shall be located in a position to be inaccessible to unauthorized persons. They shall be located behind the mast wall and be accessible through removable panels.

2.7 Guide Yoke:

- A. The 2:1 guide yoke/sprocket assembly shall be supplied with two (2) sprockets, roller guide shoes, bearings and guards.

2.8 Call Stations:

- A. Provide door frame mount key-controlled call stations for upper and lower level on a stainless steel plate (Type 304 #4 steel finish).

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2.9 Terminal Stopping Devices:

- A. Normal terminal stopping devices shall be provided at the top and bottom of the runway to stop the car positively and automatically. Microswitches shall not be used.

2.10 Guide Rails And Brackets:

- A. Steel "C" guide rails and brackets shall be used to guide the platform and sling. Guide rails shall form part of the structural integrity of the unit and be integral to the mast enclosure, ensuring stability and minimum platform deflection when loaded.

2.11 Car Sling:

- A. Car sling will be fabricated from steel tubing 44"H (1116 mm) with adequate bracing to support the platform and car enclosure. Roller guide shoes shall be mounted on the top and the bottom of the car sling to engage the rails. Guide shoes shall be roller type with 3" (76 mm) diameter wheels.

2.12 Wiring:

- A. All wiring and electrical connections shall comply with local codes. Insulated wiring shall have a flame-retardant and moisture-proof outer covering and shall be run in conduit or electrical wireways if located outside the unit enclosure. Quick disconnect harnesses shall be used when possible.

2.13 Door Locks:

- A. Door locks will be GAL type "N" interlock or fire rated door strike conforming to CAN/CSA B355.

2.14 Doors And Gates:

- A. LOW PROFILE ALUMINUM (TOP OR BOTTOM LANDINGS)
This door shall have a flush-mounted steel door frame, a hydraulic closer, a vision panel and a handle. Fire rated electric door strike or GAL interlock shall be used.
- B. TOP LANDING GATE
This gate is installed on the top landing and shall be used with a fire-rated electric door strike or a GAL interlock. The size shall be 42"H (1067 mm) and it shall be provided with a metal or acrylic insert.

3.0 Execution:

- A. EXAMINATION: All site dimensions shall be taken to ensure that tolerances and clearances have been maintained and meet local regulations.
- B. PREPARATION: Pre-inspect the construction and service requirements for work by others. These requirements will be included in drawings, diagrams, engineering data sheets and special instructions before the work begins.
- C. INSTALLATION:
 1. Install all of the components of the lift system that are specified in this section to be provided, and that are required by jurisdictional authorities to license the lift.
 2. Trained employees of the lift contractor shall perform all installation of this section.
 3. Adjust the lift for proper operation and clean unit thoroughly.
 4. Instruct users in operation procedures and Owner's representative in emergency procedures.

END OF SECTION