

## SECTION 14235

## RESIDENTIAL ELEVATORS

## PART 1 GENERAL

## 1.01 SUMMARY

- A. The product described herein, manufactured by ThyssenKrupp Access, is a private residence home elevator designed and dimensioned to provide access to all levels to the home based on the individual's requirements.

## 1.02 REFERENCES

- A. Elevator shall be designed, manufactured and installed in accordance with the following standards:
1. American National Standards Institute (ANSI).
  2. American Society of Mechanical Engineers (ASME).
  3. International Building Code (IBC).
  4. National Electrical Code (NEC).
  5. American Society for Testing Materials (ASTM).
  6. American Welding Society (AWS).

## 1.03 SYSTEM DESCRIPTION

- A. Drive System: Pump assembly with submersed motor and two-speed valve assembly; Programmable logic controller with digital signal processor with automatic operation; 1:2 roped hydraulic single stage cylinder with line rupture valve.
- B. Number of Stops: (specify:) Two to five.
- C. Car Configuration: (specify:) straight-thru, 90° side exit or enter/exit same side.
- D. Maximum Travel: (specify:) Up to 50'.
- E. Rated Load: (specify:) 750, 700 or 950 lbs.
- F. Rated Speed: 40 fpm.
- G. Car Size:
1. (specify:) 36"x48", 36"x60" or 40"x54" platform.
  2. (specify:) 84", 88" or 94" high ceiling.
- H. Car Walls: (specify:) Melamine panels (champagne, light oak, dark oak or white), wood veneer panels, inset wood veneer panels, or raised wood panels (oak, cherry or birch).
- I. Car Ceiling: (specify:) White or wood veneer to match wall panels.
- J. Car Lighting: Two recessed halogen lamps with stainless steel bezel.
- K. Handrail: (specify:) To match wall panels, brass (brushed or polished), or stainless steel (brushed or polished).
- L. Operating Features:
1. Car Operating Panel: (specify:) Stainless steel or brass (brushed or polished) panel with illuminated automatic controls, light switch, emergency stop switch, alarm button and LED floor position/diagnostic display, and (specify option:) key lock.
  2. Hall Stations: (specify:) Stainless steel or brass (brushed or polished) panel illuminated button, LED position/diagnostic display and (specify option:) key lock provided at each landing.
  3. Pit Switch and car top run/stop switch.
  4. Uninterruptible power supply (UPS) for lowering and automatic gate operation (if equipped) in the event of a power failure.
  5. Automatic homing to (specify) floor.
  6. Surface mounted telephone inside car.
  7. Car Gate(s): Accordion folding gate with safety switch (specify color:) champagne, chalk, white, light oak, dark oak, or clear panels.

8. Hoistway Door Interlocks: (specify:) Electromechanical interlocks or G.A.L. interlocks with retiring cam if necessary.
9. Upper and lower terminal limits.
10. Final limits (2 upper and 1 lower).
11. Slack rope safety with manual reset switch.
12. Anti-creep device.
13. Minimum pressure switch.
14. Pump run timer.
15. Drive circuit disconnect box (with auxiliary contacts) at controller.
16. Light circuit disconnect box at controller.
17. Battery backup emergency light and alarm.
18. (specify option:) Recessed telephone cabinet.
19. (specify option:) Automatic gate operator(s) with light beam safety curtain.
20. (specify option:) Tank heater.
21. (specify option:) Buffer springs (requires 12" pit).

#### 1.04 QUALITY ASSURANCE

- A. Manufacturer: Provide elevator manufactured by a firm with a minimum of 10 years experience in fabrication of elevators equivalent to those specified.
- B. All designs, clearances, workmanship and material, unless specifically accepted, shall be in accordance with all codes having legal jurisdiction.
- C. All load ratings and safety factors shall meet or exceed those specified by all governing agencies with jurisdiction and shall be certified by a professional engineer.
- D. Elevator shall be subject to applicable state, local and city approval prior to installation and subject to inspection after installation. Determination of and adherence to these regulations is the responsibility of the elevator contractor.
- E. Welders certified in accordance with requirements of AWS D1.1 shall perform all welding of all parts.
- F. Substitutions: No substitutions permitted.

#### 1.05 WARRANTY

- A. Warranty: Manufacturer shall warrant component parts of the Lev<sup>®</sup> home elevator for a period of two years after installation.

#### 1.06 MAINTENANCE

- A. The Lev<sup>®</sup> home elevator must be maintained in accordance with manufacturer's instructions.

### PART 2 PRODUCT

#### 2.01 MANUFACTURER

- A. Provide the Lev<sup>®</sup> home elevator with hydraulic drive manufactured by ThyssenKrupp Access.
  1. Contact: 4001 E. 138<sup>th</sup> Street, Grandview, MO; Telephone: 800-925-3100; Fax: 816-763-4467; Email: [archassist@accessind.com](mailto:archassist@accessind.com); Web site: <http://www.accessind.com>

#### 2.02 MATERIAL

- A. Guide Rail: Dual 6<sup>1</sup>/<sub>4</sub> lbs. modular machined steel T-rail system.
- B. Wire Rope: Two <sup>3</sup>/<sub>8</sub>" diameter 7 x19 ga. aircraft wire ropes.
- C. Sling: <sup>1</sup>/<sub>4</sub>" and 12 ga. structural and formed steel plates.
- D. Platform Floor: Unfinished plywood with removable insert for <sup>3</sup>/<sub>4</sub>" flooring.

#### 2.03 FINISHES

- A. Components shall be prepared with 1)alkaline detergent wash, 2)clear water rinse, 3)iron phosphate coating, 4)clear water rinse and finished with electrostatically applied and baked thermostatic powder coat finish for indoor or outdoor use. Standard color is ivory.

#### 2.04 ELECTRICAL SYSTEMS

- A. The electrical contractors shall provide:
  - 1. 230 VAC, 30 amp, 60 Hz, single phase power source with neutral and ground (4 wires) in the controller area.
  - 2. 115 VAC, single phase, 20 amp, 60 Hz power circuit in the controller area for the car lights.
  - 3. Telephone circuit in the controller area.

### **PART 3 EXECUTION**

#### 3.01 ACCEPTABLE INSTALLERS

- A. Installers shall be experienced in performing work of this section who have specialized in work comparable to that required for this project.
- B. Installers shall be certified and trained by the manufacturer.

#### 3.02 EXAMINATION

- A. Use field dimensions and approved manufacturer's shop drawings to examine substrates, supports and other conditions under which this work is to be performed. Do not proceed with work until unsatisfactory conditions are corrected.

#### 3.03 INSTALLATION

- A. The Lev<sup>®</sup> home elevator shall be installed in accordance with manufacturer's instructions and as specified and approved by architect.
- B. Hoistway doors shall be installed by others.

#### 3.04 DEMONSTRATION

- A. The elevator contractor shall make a final check of the elevator's operation with the Owner or Owner's representative present prior to turning the elevator over for use. The elevator contractor shall determine that operating and safety devices are functioning properly.

END OF SECTION

**Notes:** Intent of specification is to broadly outline equipment required but does not cover details of design and construction.

Dimensions and specifications are subject to constant change and continually evolving codes and product applications. For additional technical information, contact ThyssenKrupp Access at (800) 925-3100 or [www.accessind.com](http://www.accessind.com).