

# **TRADESMAN**

Hydraulic Elevator Systems

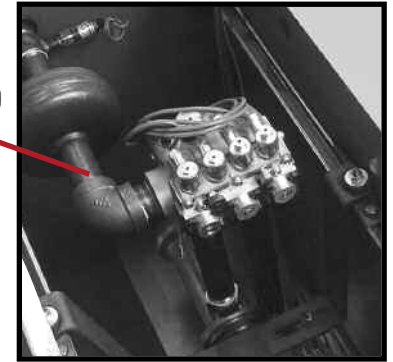
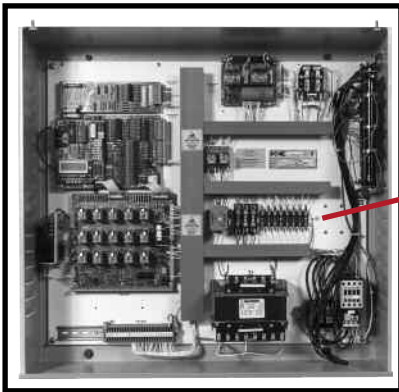


Meets all ANSI A17-1 code requirements and complies with ADA handicap requirements.

 **CANTON ELEVATOR**  
I N C O R P O R A T E D

647 THIRD STREET N.W., MASSILLON, OH 44647 PH 330-833-3600 FAX 330-833-0229

# COMPONENTS



## POWER UNIT

Contemporary elevator systems utilize the most trouble-free and easily serviced components available. The submersible power units built by Canton Elevator are defined by those criteria and use only the highest grade materials available. There are no external pipes or fittings to leak and no belts to break, stretch or adjust.

- Furnished with silencer.
- Built-in pressure gauge to assist in installation and service.
- Integral controller mounted to front of unit and motor starter/valve coils are prewired for quick and easy installation.
- Isolation mounting pads are included.
- Maximum nominal size of power unit is 48" W x 33-3/4" D x 42" H overall with controller.
- For installation where machine room door width is less than 36", controller and motor/starter panel can be removed. Maximum depth of power unit is then 26-3/4".
- Basic Tradesman package is designed to operate on 208/220-240V/3 PH/60 HZ power supply. Can be furnished to operate on other voltages.
- Threaded oil line and fittings and wiring materials are furnished for an adjacent machine room at side or rear of shaft at lowest landing.

## CONTROLLER

The microcomputer-based controller provided as a standard with every Canton Elevator Tradesman system incorporates the latest technologies in the industry. The most important features include on board diagnostics, which require no additional test equipment to maintain or trouble-shoot permanent display of all calls, car position and direction along with key modes of operation and condition codes and built-in protection timers that can save your hydraulics, pump and door motors from damage and unnecessary wear. Simplicity, combined with ease of installation and "at-a-glance" service indicators, help to ensure your system's reliability while keeping maintenance costs to a minimum. Provision is made for car traveling lantern with handicap gong, independent service, low oil control.

Optional features available at added cost:

- Phase I & II fire service - per code requirements
- Phase reverse relay
- Access switch provision
- Hall lantern and gongs
- Mass EMT provision
- Door nudging
- Wye-Delta starting system
- Interface to rescuator or emergency power system
- CSA label

## MAGNETIC TAPE LANDING SYSTEM

This cartop mounted system provides accurate performance for deceleration, stopping, leveling and access zoning. This unit eliminates the need for vanes and switches.



## RAIL BRACKETS

Reduces installation time by allowing complete rail adjustment in all directions.



## GUIDE SHOES

- Removable nylon swivel insert
- No bearings or springs to wear out or break
- Easy to adjust





**Standard  
Oak No. W-508**

## CABS

Because your cab is the most visible element in the elevator system, Canton Elevator has paid close attention to this standard production design offering. The Tradesman series includes the most widely specified cab design which sets a quiet tone of sophistication in a functional yet distinguished style. The cab is crafted from highest quality materials in a computer-controlled production environment, thus helping ensure years of durability.

Available in a choice of two plastic laminate finishes - walnut or natural oak. Other colors are optional. Cab height overall is standard 8'-0".

The basic Tradesman cab includes a wood core shell faced with plastic laminate on the side and rear walls. The door panel is faced with plastic laminate and has a brushed stainless steel binder on the leading edge. The column, transom, return panel, base, and handrail are finished in brushed stainless steel. Fluorescent lighting is located above a suspended thermoclear ceiling with an aluminum frame. An exhaust fan, certificate frame, and infrared door protection curtain are included.



**Standard cab optional  
mahogany finish No. W-513**

*Cab options available at added cost:*

- #4 stainless steel car door.
- #4 stainless steel bar handrail on all three sides (side handrails are shipped separately and template is provided - side walls to be drilled in field for handrail mounting).
- Aluminum eggcrate ceiling panels.
- Pads and hooks (provided separately). Layout template is included - walls to be drilled in field for pad attachment.

## JACK

Hole type jacks include factory applied corrosion preventive coating. One piece buffer/pit support plate design reduces installation time. Leveling bolts included for quick and easy alignment. Isolated platen plate. Bolt-on heads feature one piece packing and wiper ring for ease of replacement.



## ENTRANCES

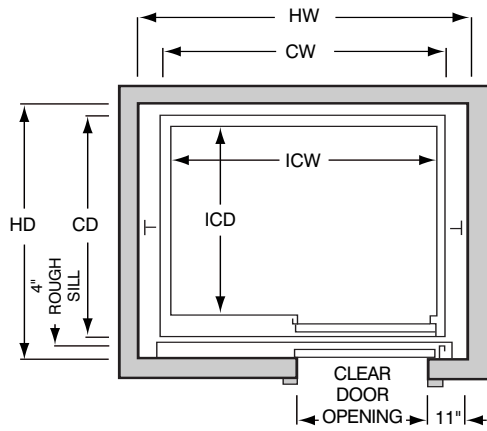
Single slide, right or left hand entrances are provided with opening width as per recommended handicap requirements. Doors and frames are provided for 8" block wall and can be furnished for 3/4" drywall as an option; and are of square profile, bolted construction with aluminum sill. Entrances are furnished in attractive off-white enamel and include tactile jamb plates. All entrances are U.L. approved.

## FIXTURES

Standard systems are made even more adaptable to any architecture with this distinctive signal fixture group. The hall and cab panels are user-friendly to the handicapped and feature braille/tactile indications in the car. Industry-standard pushbuttons have been rigorously tested and proven to be among the finest available. Cover plates are #4 stainless steel.

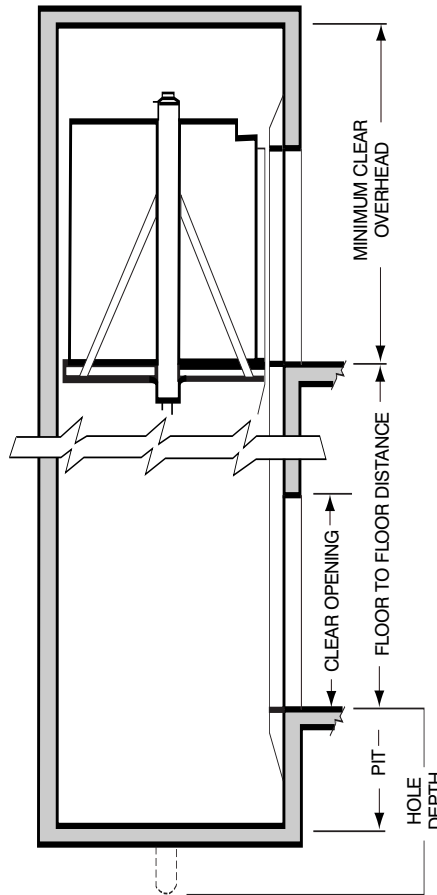
- Car traveling lantern with up/down handicap gong is furnished as standard on all models. Car position indicator with floor passing gong is furnished on three-stop model and available as an option on two-stop models.
- Fire service provision is available as an option. Special fire service key switches as required by local codes can also be provided.
- Access switch provision is available as an option.
- Hall lantern and gongs are available as an option.





DIMENSIONS	CAPACITY	
	2000#	2500#
HW	7'-4"	8'-4"
*HD	5'-10"	5'-10"
CW	6'-0"	7'-0"
CD	5'-1"	5'-1"
ICW	5'-8"	6'-8"
ICD	4'-3"	4'-3"
CLEAR DOOR OPENING	3'-0"	3'-6"

- \* Hatch depth can be reduced by 1" to 5'-9" clear front to back.
- 2000-lb. car complies with NEII recommendations for car to accommodate wheelchair.
- 2500-lb. car complies with NEII recommendations for car to accommodate ambulance size stretcher.



## Calculation of Pit, Overhead, Hole Depth Requirements

### FOR 2-STOP HOLELESS

**Maximum floor-to-floor distance available is 16'-0"**

- Pit depth - 4'-0" minimum is standard.
- Minimum clear Overhead required by code (based on 8'-0" high cab):  
For up to and including 100 FPM = 11'-11".  
For over 100 FPM = 12'-2".
- Total hoistway height required (pit floor to clear under roof) is:  
For up to & including 100 FPM:  
(2) x (FL to FL travel) + 2'-10".  
For over 100 FPM: (2) x (FL to FL travel) + 4'-0".

If total hoistway height is not sufficient, (2) holes can be provided to make up required dimension. In this case, add an additional 6" to required height.  
For up to and including 100 FPM - add 3'-4" in lieu of 2'-10".  
For over 100 FPM - add 4'-6" in lieu of 4'-0".

Note that clear Overhead as required by code must always be maintained.

For example (FOR HOLELESS ONLY):  
For FL to FL distance of 15'-4" use 16'-0",  
Speed of 90 FPM, Pit 4'-0",  
Overhead 13'-0".

Available	Required
Actual FL to FL 15'-4"	(2) Travel = (2) 16'-0" = 32'-0"
Pit 4'-0"	Over 100 FPM +2'-10"
O.H. 13'-0"	34'-10"
32'-4"	Available → 32'-4"
	Holes required 2'-6"
	Additional add 6"
	Hole depth required 3'-0"

### FOR 3-STOP HOLELESS

**Maximum floor-to-floor distance available is 26'-0"**

100 FPM  
(1/2 Travel) + 58" = Pit & Overhead required.  
Minimum Overhead is 12'-5".  
Minimum Pit is 4'-0".

125 FPM  
(1/2 Travel) + 67" = Pit & Overhead required.  
Minimum Overhead is 13'-1".  
Minimum Pit is 4'-0".

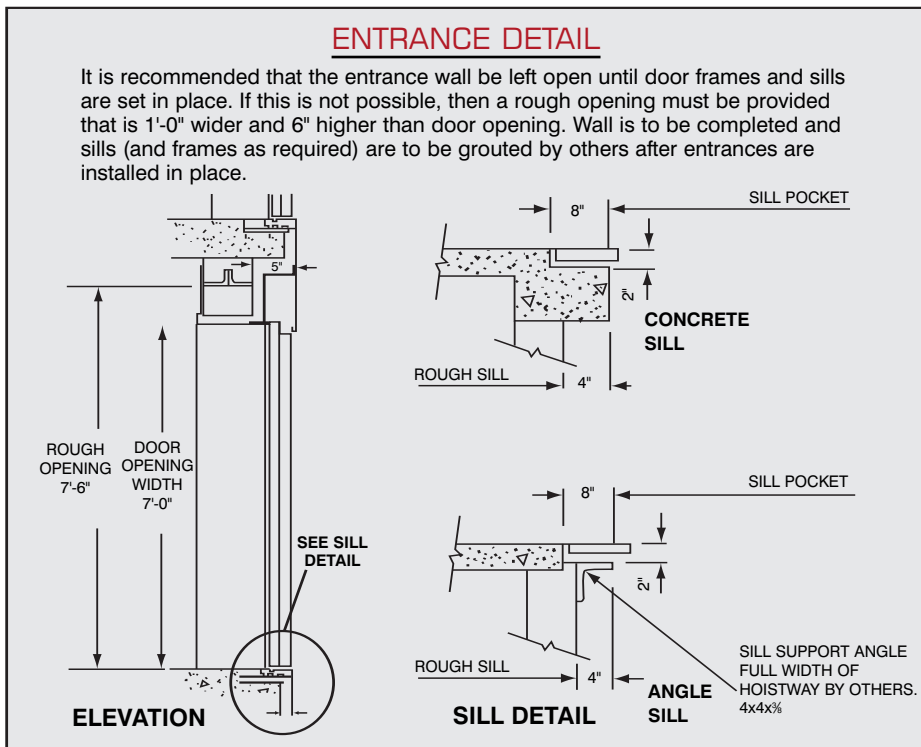
### FOR HOLED INSTALLATIONS

**Maximum floor-to-floor distance available is 39'-0"**

- Pit depth - 4'-0" minimum is standard.
- Hole depth from lower terminal landing is approximate Travel + 6'-0".
- Minimum clear Overhead required (based on 8'-0" high cab):  
For up to 100 FPM = 11'-11".  
For 100 FPM and over = 12'-2".

## ENTRANCE DETAIL

It is recommended that the entrance wall be left open until door frames and sills are set in place. If this is not possible, then a rough opening must be provided that is 1'-0" wider and 6" higher than door opening. Wall is to be completed and sills (and frames as required) are to be grouted by others after entrances are installed in place.



## MACHINE ROOM

- An area 5'-6" x 7'-0" x 8'-0" high is adequate with 3'-0" wide door opening for access.
- All materials are furnished for machine room located adjacent to elevator hoistway at lowest landing.
- Adequate heating and ventilation to meet code requirements must be provided.

# FEATURES AT A GLANCE

MAXIMUM TRAVEL DISTANCES (FLOOR-TO-FLOOR):

Two-Stop Models - Holed and Holeless - 16'-0".

Three-Stop Models - Holed Only - 28'-0".

Four-Stop Models - Holed Only - 39'-0".

DESCRIPTION	Model T2002	Model T2502	Model T2002H	Model T2502H	Model T2003	Model T2503	Model T2003H	Model T2503H	Model T2004	Model T2504
CAPACITY 2000 LBS. PLATFORM 6'-0" x 5'-1"	■		■		■		■		■	
CAPACITY 2500 LBS. PLATFORM 7'-0" x 5'-1"		■		■		■		■		■
HOLE TYPE	■	■			■	■			■	■
HOLELESS			■	■			■	■		
NUMBER OF LANDINGS IN LINE	2	2	2	2	3	3	3	3	4	4
SINGLE SLIDE RIGHT OR LEFT HAND 3'-0" W x 7'-0" H	■		■		■		■		■	
SINGLE SLIDE RIGHT OR LEFT HAND 3'-6" W x 7'-0" H		■		■		■		■		■
OPERATION: SIMPLEX SELECTIVE COLLECTIVE FOR 208/220-240V/3 PH/60 HZ POWER	■	■	■	■	■	■	■	■	■	■
HALL STATIONS, LIGHT-UP PUSHBUTTONS	■	■	■	■	■	■	■	■	■	■
CAR STATION, PHONE BOX, EMERGENCY LIGHT	■	■	■	■	■	■	■	■	■	■
CAR POSITION INDICATOR WITH FLOOR PASSING GONG	■	■	■	■	■	■	■	■	■	■
CAR TRAVELING LANTERN, HANDICAP GONG	■	■	■	■	■	■	■	■	■	■
SPEED 90 FPM 20 H.P. - ATL START	■	■	■	■						
SPEED 100 FPM 20 H.P. - ATL START					■					
SPEED 100 FPM 25 H.P. - ATL START						■	■	■	■	■
OPTIONAL SPEED 125 FPM 25 H.P. - ATL START	■	■	■		■				■	
OPTIONAL SPEED 125 FPM 30 H.P. - Y Δ START				■		■	■	■		■

## AVAILABLE OPTIONS FOR ALL MODELS:

- Multi-section jack unit
- Phase I & II fire service
- Wye-Delta motor starter for 20, 25 and 30 H.P.
- Hall lantern and gong
- Access switches
- Phase reverse relay
- Door nudging
- Battery emergency lowering
- Hall position indicators
- Victaulic oil line
- Mass EMT
- Keyed hall stations
- #4 stainless steel car door
- #4 stainless steel handrail on three sides of car
- Aluminum eggcrate ceiling
- Pad hooks and pads
- Hoistway entrance frames for 3-3/4 drywall
- Equipment to operate on 440-480/575 Volt, 3 PH, 60 Hz power supply
- Various other cab, entrance and fixture options available. (See Price/Order Form)
- Cover mounted auto-dial phone

# SPECIFICATIONS

## These Items Must Be Considered By Purchaser

The purchaser must provide the following in accordance with ANSI A17.1 code requirements or local code requirements, whichever are more stringent.

### HOISTWAY AND PIT

1. A clear hoistway of the dimensions shown, plumb to within 1".
2. Venting of hoistway as required by code.
3. A reinforced pit floor to sustain applied vertical loads with a sump pump or drain.
4. **For hole type installations:** A 30" square hole is to be left in the pit floor and is to be grouted in by others after jack unit is installed.
5. A pit ladder for each elevator of non-combustible material, constructed and installed in accordance with code, and extending from pit floor to 42" above sill of lowest hoistway door.
6. Adequate supports for guide rail brackets, to support horizontal loads as shown. Support locations must not exceed spacing as required by code, and as shown. When maximum spacing is exceeded, rail reinforcement, or additional supports must be provided at purchaser's expense.
7. Guide rail support locations must be steel, brick, concrete, or filled concrete block. If inserts are furnished, these are to be installed by others, in locations shown, as walls are erected. If rail brackets are attached to steel beams, fireproofing is to be applied AFTER rail brackets are installed.
8. Projections or recesses in the hoistway of 2" or more, on sides not used for loading or unloading, shall be beveled at an angle not less than 75° from the horizontal.
9. A hoist beam, hook, or eyebolt shall be furnished at the top of the hoistway, located on centerline of car and guides - designed for load capacity of 6000 pounds.
10. Entrance walls accepting passenger type entrances are to be erected (or rough opening as shown filled in) after door frames and sills are installed.
11. A suitable sill support and recess as shown, full width of the hoistway, grouted by others after door sills are installed.
12. Required sleeves in hoistway wall, or any trenching and filling, for oil line and wiring duct for each elevator, as shown.
13. Any cutting and patching of building construction required to install signal fixtures, or other elevator apparatus, and any repairs, grouting, patching, or painting made necessary by same.
14. Barricades as may be required during construction.

### MACHINE ROOM

15. A machine room properly lighted and ventilated per code requirements with temperature maintained between 60° - 95°. Door of size to permit access for hydraulic machine, to be self-closing and locking, but openable from inside without key.

### ELECTRICAL

All electrical in accordance with ANSI and NEC.

16. A fused disconnect switch for each elevator, of ample capacity, with wiring to the elevator motor starter control. Disconnecting means shall disconnect the normal power supply as well as emergency supply, when provided.
17. Light and switch in elevator machine room, with switch located adjacent to access door. Convenience outlet in machine room.
18. Light, switch and convenience outlet in elevator pit, light switch accessible from lower landing opening. Install light to clear elevator car.
19. Suitable 110V service in the hoistway, midway of travel (see layout) or connected to terminals in elevator controller for car light service (elevator contractor's option).
20. Smoke detectors located at each elevator landing and in the machine room. When sprinklers are present in the machine room or hoistway, provide an automatic means to disconnect the mainline power.
21. Telephone instrument in elevator car and wiring from building source to elevator control panel.
22. Furnishing of any special intercom, paging, or television systems, including wiring from building source to elevator control panel.

### GENERAL

23. Necessary power for installing, erecting, and testing, without charge.
24. Any features or equipment required, but not specified as being furnished by elevator contractor.
25. A safe and dry space to store elevator equipment and tools before and during construction.

### STANDARD SUBMERSIBLE ELEVATOR MOTOR RATINGS

HP	VOLTS	FLA	LRA
20	200	60	299
20	230	52	260
20	460	26	130
20	575	21	104
25	200	75	380
25	230	66	330
25	460	33	165
25	575	27	132
30	200	85	494
30	230	74	430
30	460	37	215
30	575	29.6	172

LRA are given for across the line starting. Starting amps are .33 times LRA when starting on wye start - delta run. (Typical data)



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