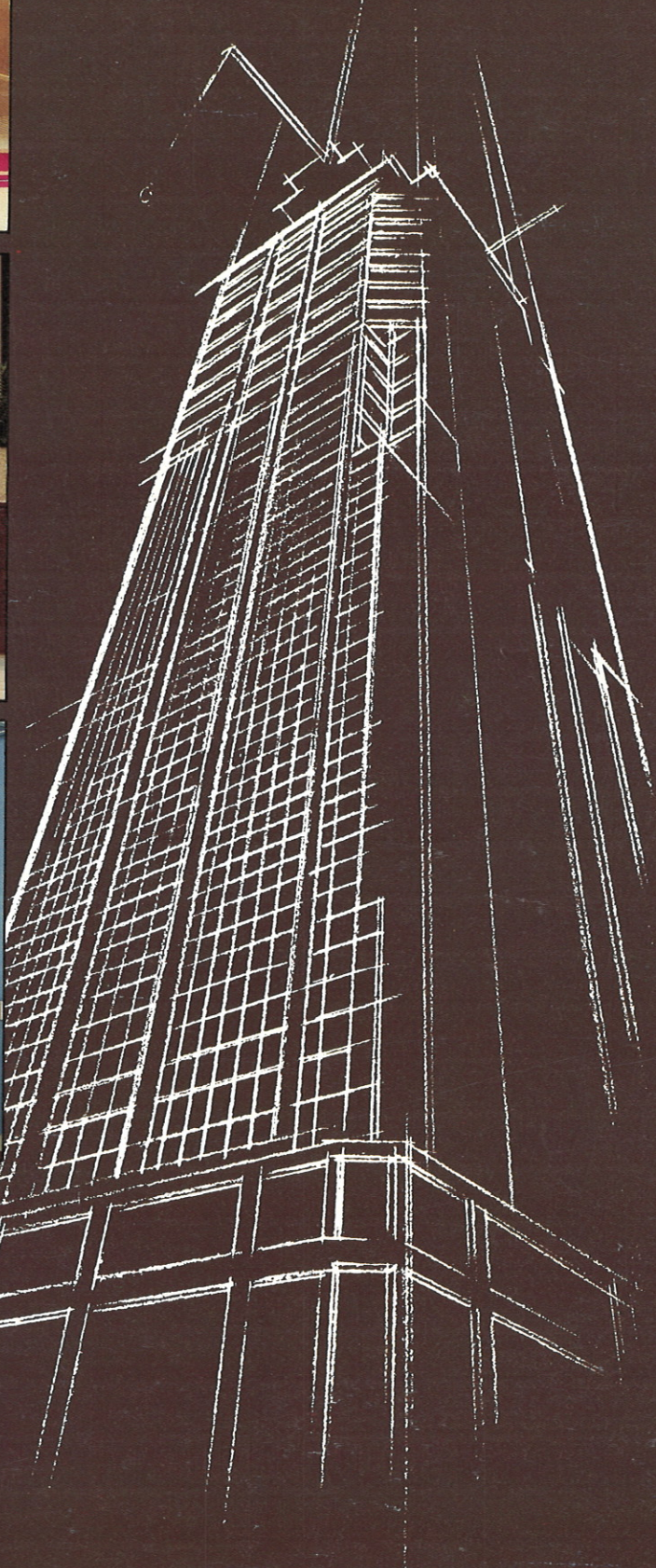


**montgomery**

ELEVATORS ESCALATORS  
POWER WALKS POWER RAMPS







## STANDARDS OF EXCELLENCE

The Montgomery Planning Guide provides dimensional data on the full range of equipment manufactured by Montgomery including Passenger, Service & Freight Elevators (Gearless & Geared Traction and Hydraulic) as well as Escalators, Power Walks and Power Ramps. The information provided explains Montgomery standards designed to meet virtually any vertical transportation need.

Montgomery Standards of Excellence offer our Customers Standards of Choice. These standards are the foundation from which design choice can create the exact vertical transportation system required. Montgomery personnel are continuously trained in the proper application of our complete product line. Building traffic analysis, preliminary layout planning and specification preparation are some of the design services offered by Montgomery to tailor equipment to the precise traffic handling requirements of the proposed installation.

### MEGATECH<sup>®</sup> Elevator advanced components:

For nearly 100 years, Montgomery has maintained the highest standards of quality in the design and manufacture of vertical transportation equipment. Our on-going program of Research & Development has pioneered many new application approaches which have become industry standards. Our dedication to Research & Development has now created an expanding family of advanced power controls, programmable logic controls along with products incorporating 21st Century lightweight/high strength designs. MEGATECH ELEVATOR ADVANCED COMPONENTS, Montgomery Standards of Excellence providing even greater customer opportunity for Standards of Choice:

**VECTOR<sup>®</sup>** Fully Integrated Elevator Fixture System  
FIXTURE SYSTEM

**TRIAD<sup>®</sup>** Lightweight/High Strength Passenger Elevator Enclosures

**CTX** Standard Geared Traction Passenger Elevator System

**HH-II<sup>®</sup>** Standard Holeless Hydraulic Passenger Elevator System

**MX-3<sup>®</sup>** Standard Inground Hydraulic Passenger Elevator System

**miprom II<sup>®</sup>** Reprogrammable Microcomputer Logic Control Systems

**SPECTRON<sup>®</sup>** Solid State A.C. Power Control

**ULTRON<sup>®</sup>** Solid State High Performance D.C. Power Control

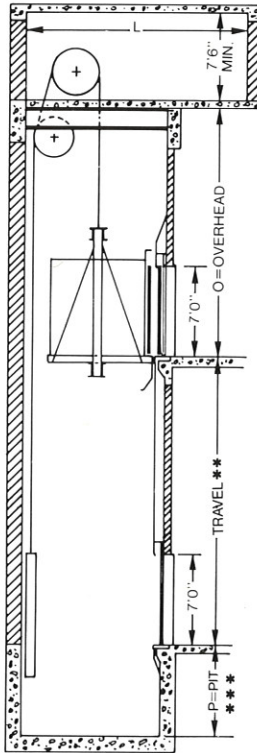
**T.E.D.<sup>™</sup>** Total Elevator Diagnostic System

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## High Speed:

High-Speed Traction Elevators meet the need for high quality performance with speeds to 1200 fpm. Heavy traffic demands are served by MIPROM II® Microcomputer Group Logic Systems.

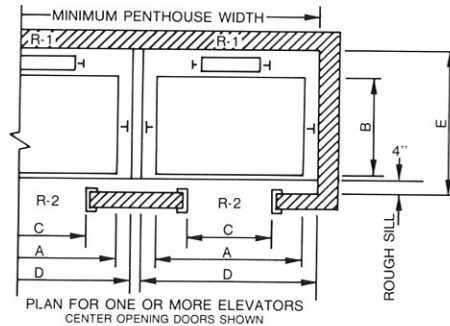


## Moderate Speed:

Moderate Speed Traction Elevators perform efficiently and economically when serving traffic demands in medium and low rise buildings.

HANDICAPPED REQUIREMENTS AVAILABLE TO MEET NEII STANDARDS, LOCAL CODES OR LAWS.  
National Elevator Industry, Inc. (NEII) Handicapped Standards are:  
Placement of car controls, hall buttons and phone (or intercommunication equipment) for easy access.  
Tactile markings for operating switches, buttons and hoistway door jambs.  
Handrails in car — dual ray door protection — audible signals in car position indicator and lanterns.  
CAR SIZE: Certain minimums may apply. Consult your Montgomery Professional.

For hoistway entrance and sill detail information see page 7.



RECOMMENDED SIZES AND CAPACITIES				
TYPE BUILDING	SMALL OFFICE	AVERAGE OFFICE HOTEL	LARGE OFFICE OR STORE	
CAPACITY	2000#	2500#†	3000#†	3500#†
A	6'-0"	7'-0"	7'-0"	7'-0"
B	5'-0"	5'-0"	5'-6"	6'-2"
C	3'-0"	3'-6"	3'-6"	3'-6"
D	7'-4"	8'-4"	8'-4"	8'-4"
E	6'-10"	6'-10"	7'-4"	8'-0"

CAPACITY	OVERHEAD LOADS/LBS. (APPROXIMATE) PER ELEVATOR							
	UP TO 350 FPM†		400 FPM		500 FPM-TO-700 FPM		800 FPM-TO-1200 FPM	
	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2
2000#	18500	9500	N/A	N/A	N/A	N/A	N/A	N/A
+2500#	22000	11500	25000	15000	28000	18000	31000	21000
+3000#	23000	11500	26000	15000	29000	18000	32000	22000
+3500#	24500	13000	28000	16000	30000	19000	33000	23000

MINIMUM PIT-OVERHEAD & MACHINE ROOM DIMENSIONS										
SPEED	200†	300	350†	400	500	600	700	*800	*1000	*1200
L	16'-0"	15'-0"	15'-0"	15'-0"	18'-6"	18'-6"	18'-6"	18'-6"	18'-6"	18'-6"
O	15'-6"	16'-0"	16'-6"	16'-8"	17'-6"	18'-6"	19'-6"	21'-6"	21'-6"	23'-0"
P	5'-0"	5'-0"	5'-0"	5'-7"	7'-8"	8'-6"	9'-2"	12'-0"	12'-0"	12'-0"

### NOTES:

- † Duties noted conform to Montgomery **CTX™** standard Geared Traction applications. Consult your Montgomery Professional for more information on **CTX™**.
1. Reactions include allowances for impact but DO NOT include weight of concrete slab.
2. Pit depths, overhead clearance and penthouse sizes are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
3. Add 5" to "E" for counterweight with safety.
4. Layouts and dimensions shown are for center opening type entrances. Other types available.

5. Dimension "O" based on standard height elevator cab.
6. All data is general. Sizes/speeds shown explain frequently used duties. Number of floors served, car size, speed and cab design are the result of actual application. Consult your Montgomery Professional for specific recommendations where space is limited and/or other conditions necessitate further study. Your Montgomery Professional can help provide exact information for your working drawings.

- \* Add 2" to Dimension "D" for car speed over 700 FPM.
- \*\* When car travel is over 150 feet, add ¼" to overall hoistway width and depth for each additional 25 feet of travel.
- \*\*\* Increase pit dimension for 400 FPM to 7'-8" where Cable COMPENSATION is required.



## Basement Type-Moderate Speed:

Basement type traction elevators are utilized for limited overhead conditions in new and existing buildings. The hoisting machine is off-set at the side of the hoistway. The machine may be located at any suitable elevation and need not be at the "basement." This type of elevator facilitates future floor expansion.

HANDICAPPED REQUIREMENTS AVAILABLE TO MEET NEII STANDARDS, LOCAL CODES OR LAWS.

National Elevator Industry, Inc. (NEII) Handicapped Standards are:

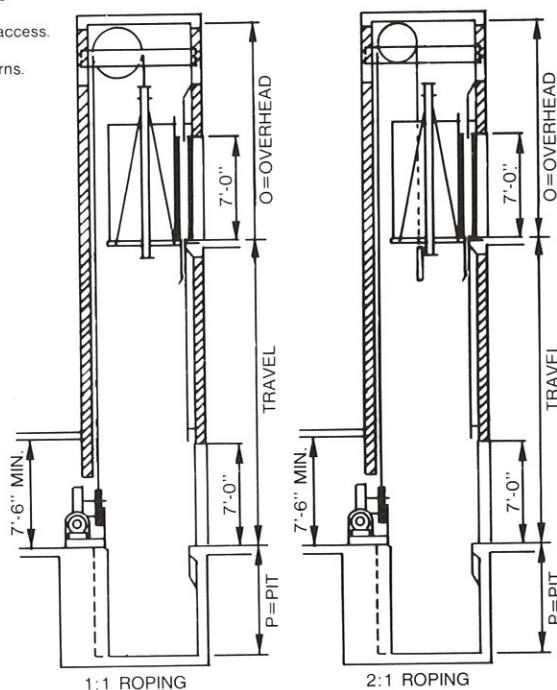
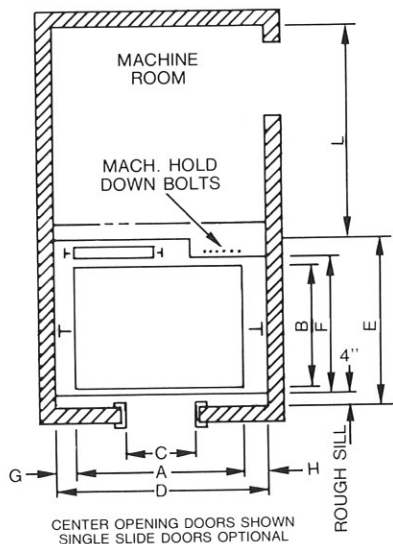
Placement of car controls, hall buttons and phone (or intercommunication equipment) for easy access.

Tactile markings for operating switches, buttons and hoistway door jamba.

Handrails in car – dual ray door protection – audible signals in car position indicator and lanterns.

CAR SIZE: Certain minimums may apply. Consult your Montgomery Professional.

For hoistway entrance and sill detail information see page 7.



**1:1 ROPING ARRANGEMENT**  
is used when only moderate overhead clearance is available, and only when a shallow pit depth is feasible.

### RECOMMENDED SIZES & CAPACITIES

TYPE BUILDING	APARTMENT OR SMALL OFFICE	AVERAGE OFFICE HOTEL		LARGE OFFICE OR STORE
CAPACITY	2000#	2500#	3000#	3500#
A	6'-0"	7'-0"	7'-0"	7'-0"
B	5'-0"	5'-0"	5'-6"	6'-2"
C	3'-0"	3'-6"	3'-6"	3'-6"
D	7'-10"	8'-4"	8'-4"	8'-4"
E	6'-10"	6'-10"	7'-4"	8'-0"
F	5'-5"	5'-5"	5'-11"	6'-7"
G	11"	8"	8"	8"
H	11"	8"	8"	8"

### RECOMMENDED MACHINE ROOM OVERHEAD & PIT DIMENSIONS

SPEED	100	200	250	300	350
L	10'-6"	10'-6"	10'-6"	10'-6"	10'-6"
O	16'-7"	17'-1"	17'-5"	17'-6"	17'-9"
P	4'-0"	5'-0"	5'-0"	5'-0"	5'-0"

### 2:1 ROPING ARRANGEMENT

permits a minimum overhead installation. Because of the sheave arrangement, it is necessary to have a greater pit depth than for a comparable 1:1 installation.

### RECOMMENDED SIZES & CAPACITIES

TYPE BUILDING	APARTMENT OR SMALL OFFICE	AVERAGE OFFICE HOTEL	
CAPACITY	2000#	2500#	3000#
A	6'-0"	7'-0"	7'-0"
B	5'-0"	5'-0"	5'-6"
C	3'-0"	3'-6"	3'-6"
D	7'-10"	8'-10"	8'-10"
E	6'-10"	6'-10"	7'-4"
F	5'-5"	5'-5"	5'-11"
G	10"	10"	10"
H	12"	12"	12"

### RECOMMENDED MACHINE ROOM OVERHEAD & PIT DIMENSIONS

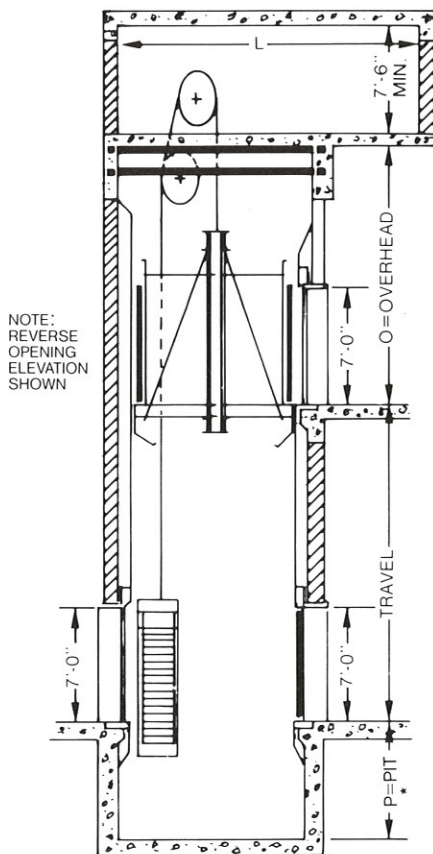
SPEED	100	200	250	300
L	10'-6"	10'-6"	10'-6"	10'-6"
O	13'-0"	13'-2"	13'-7"	13'-8"
P	5'-6"	6'-6"	6'-11"	7'-4"

#### NOTES:

- Pit depths, overhead clearance and penthouse sizes are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
- Add 5" to "E" for counterweight with safety at speeds of 200 F.P.M. or more.
- Layouts and dimensions shown are for center opening type entrances.

- Dimension "O" based on standard height elevator cab.
- All data is general. Sizes/speeds shown explain frequently used duties. Number of floors served, car size, speed and cab design are the result of actual application. Consult your Montgomery Professional for specific recommendations where space is limited and/or other conditions necessitate further study. Your Montgomery Professional can help provide exact information for your working drawings.



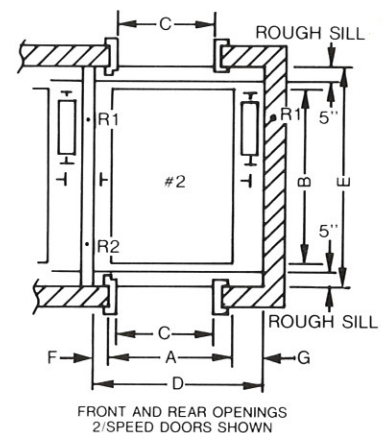
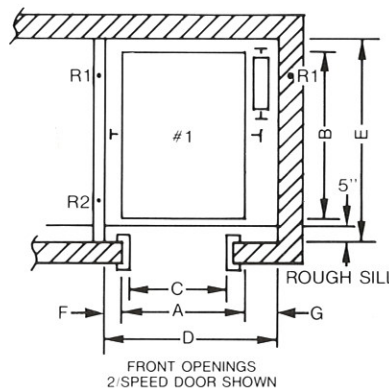


## Hospital Shape (Passenger/Service):

Passenger/Service (Hospital Shape) Traction Elevators are designed in a wide range of speeds for individual applications. Emergency and independent service as well as auxiliary power features are available.

HANDICAPPED REQUIREMENTS AVAILABLE TO MEET NEII STANDARDS, LOCAL CODES OR LAWS.  
National Elevator Industry, Inc. (NEII) Handicapped Standards are:  
Placement of car controls, hall buttons and phone (or intercommunication equipment) for easy access.  
Tactile markings for operating switches, buttons and hoistway door jambs.  
Handrails in car — dual ray door protection — audible signals in car position indicator and lanterns.  
CAR SIZE: Certain minimums may apply. Consult your Montgomery Professional.

For hoistway entrance and sill detail information see page 7.



## ONE OR MORE ELEVATORS

### RECOMMENDED SIZES & CAPACITIES

CAPACITY	3500#		4000#		4500#		5000#	
	#1	#2	#1	#2	#1	#2	#1	#2
A	5'-4"	5'-4"	5'-8"	5'-8"	5'-8"	5'-8"	6'-4"	6'-4"
B	8'-4"	9'-0"	8'-8"	9'-4"	9'-4"	10'-0"	8'-10"	9'-6"
C	3'-8"	3'-8"	4'-0"	4'-0"	4'-0"	4'-0"	4'-6"	4'-6"
D	7'-4"	7'-4"	7'-8"	7'-8"	7'-8"	7'-8"	8'-4"	8'-4"
E	9'-3"	10'-3 1/2"	9'-7"	10'-7 1/2"	10'-3"	11'-3 1/2"	9'-9"	10'-9 1/2"
F	8"	8"	8"	8"	8"	8"	8"	8"
G	1'-4"	1'-4"	1'-4"	1'-4"	1'-4"	1'-4"	1'-4"	1'-4"
MINIMUM PIT, OVERHEAD AND MACHINE ROOM DIMENSIONS								
SPEED	100	200	350	500				
L	18'-0"	18'-0"	18'-0"	19'-0"				
O	15'-6"	15'-9"	16'-6"	17'-7"				
P	4'-0"	4'-0"*	5'-1"***	6'-7"***				

### APPROXIMATE OVERHEAD LOADS/LBS. PER PASSENGER ELEVATOR

CAPACITY	R-1	R-2
3500	28500	10500
4000	29500	11000
4500	30500	11500
5000	36000	15500

### NOTES:

- Reactions include allowances for impact but DO NOT include weight of concrete slab.
- Pit depths, overhead clearance and penthouse sizes are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
- Add 5" to "D" for counterweight with safety at speeds of 200 F.P.M. or more.
- Layouts and dimensions shown are for two speed type entrances.
- Dimension "O" based on standard height elevator cab.
- All data is general. Sizes/speeds shown explain frequently used duties. Number of floors served, car size, speed and cab design are the result of actual application. Consult your Montgomery Professional for specific recommendations where space is limited and/or other conditions necessitate further study. Your Montgomery Professional can help provide exact information for your working drawings.

\*5'-0" Pit required when "B" exceeds 9'-0".

\*\*5'-6" Pit required when "B" exceeds 9'-0".

\*\*\*7'-8" Pit required with cable compensation.





# montgomery<sup>®</sup> PASSENGER & SERVICE ELEVATORS

## Hydraulic:

Hydraulic Elevators are designed to meet varying performance requirements with car speeds to 200 feet per minute and maximum travel to 70 feet. They are easily adapted to most low rise buildings and frequently produce economic advantages over hoist rope traction elevators.

HANDICAPPED REQUIREMENTS AVAILABLE TO MEET NEII STANDARDS, LOCAL CODES OR LAWS.

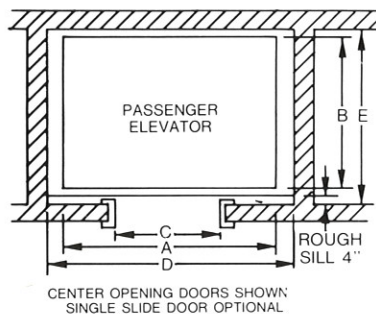
National Elevator Industry, Inc. (NEII) Handicapped Standards are:

Placement of car controls, hall buttons and phone (or intercommunication equipment) for easy access. Tactile markings for operating switches, buttons and hoistway door jambs.

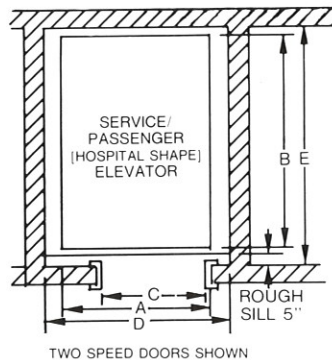
Handrails in car — dual ray door protection — audible signals in car position indicator and lanterns.

CAR SIZE: Certain minimums may apply. Consult your Montgomery Professional.

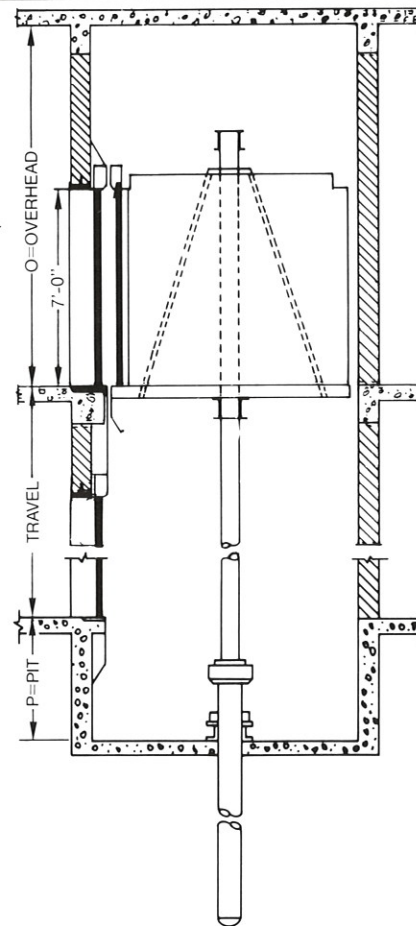
For hoistway entrance and sill detail information see page 7.



DETAIL X



DETAIL Y



DETAIL Z

FOR OFFICE BUILDINGS, HOTELS, MOTELS, APARTMENTS, BANKS, STORES, LIBRARIES, ETC. (Details X & Z)					
CAPACITY	1500#	2000#	2500#	3000#	3500#
A	4'-10"	6'-0"	7'-0"	7'-0"	8'-0"
B	5'-0"	5'-0"	5'-0"	5'-6"	5'-6"
C	2'-8"	3'-0"	3'-6"	3'-6"	4'-0"
D	6'-8"	7'-4"	8'-4"	8'-4"	9'-4"
E	5'-9"	5'-9"	5'-9"	6'-3"	6'-3"
O	12'-8"	12'-8"	12'-8"	12'-8"	12'-8"
P	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"

HOSPITALS AND INSTITUTIONS				1 - Single Entrance 2 - Double Entrance		
(Details Y & Z)						
CAPACITY	3500#		4000#		4500#	
	1	2	1	2	1	2
A	5'-4"	5'-4"	5'-8"	5'-8"	5'-8"	5'-8"
B	8'-4"	9'-0"	8'-8"	9'-4"	9'-4"	10'-0"
C	3'-8"	3'-8"	4'-0"	4'-0"	4'-0"	4'-0"
D	6'-9"	6'-9"	7'-4"	7'-4"	7'-4"	7'-4"
E	9'-3"	10'-3½"	9'-7"	10'-7½"	10'-3"	11'-3½"
O	13'-0"	13'-0"	13'-0"	13'-0"	13'-0"	13'-0"
P	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"	4'-0"

### NOTES:

1. A legal machine room meeting Code requirements and ventilated with temperature maintained between 65° and 100°F, must be provided. Machine room location preferably should be at the lowest landing adjacent to the hoistway. Machine room size varies depending on capacity and speed of elevator. Consult your Montgomery Professional for the exact size.
2. Pit depths and overhead clearances are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
3. Layout and dimensions shown for passenger elevators based on center opening type entrances and for hospital elevators based on two speed type entrances.
4. Dimension "O" based on standard height elevator cab.
5. All data is general. Sizes/speeds shown explain frequently used duties. Number of floors served, car size, speed and cab design are the result of actual application. Consult your Montgomery Professional for specific recommendations where space is limited and/or other conditions necessitate further study. Your Montgomery Professional can help provide exact information for your working drawings.

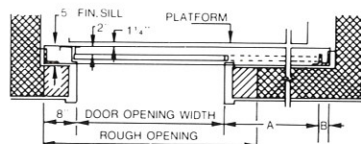
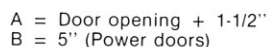


Montgomery standard entrances, as shown, are available in a wide range of finishes and materials designed for masonry wall installation (as shown) and also drywall application. Custom entrances are also available. Contact your local Montgomery Professional for details.

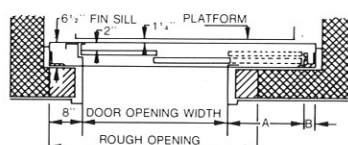
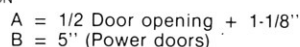
NOTE: Wherever possible, front hoistway walls should not be erected until after door equipment is installed.

ROUGH OPENING (for standard unit-type frames installed in masonry walls):  
Width of door opening plus 8" on each side. Height of door opening plus 8" above.

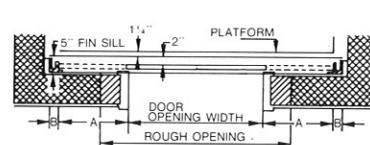
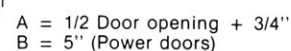
Maximum opening width approximately 1/2 width of car. Opening width should not exceed 3'-6". Provides a sliding door at moderate cost.



Door opening is approximately 2/3 width of car.



Opening is approximately 1/2 width of car. Simultaneous opening of each door panel, at equal speed, reduces opening time to 1/2 that required for other types of sliding doors.



NOTE:  
FREIGHT DOOR FRAMES  
AND SILLS NOT BY  
MONTGOMERY

Diagram illustrating a door opening with a platform and door frame. The diagram shows a cross-section of a door frame labeled "5 DOOR FRAME TO CAR" and a platform labeled "PLATFORM". The door opening is marked with dimensions "X" and "DOOR OPENING".

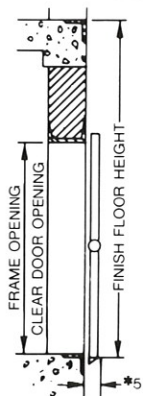
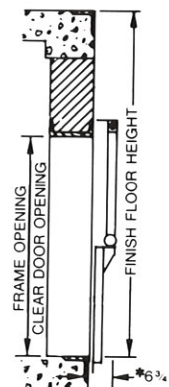


Diagram illustrating the door opening mechanism. The diagram shows a cross-section of a door frame assembly. Key components labeled include:
 

- 6 3/4" DOOR FRAME TO CAR
- PLATFORM
- UPPER PANEL
- LOWER PANEL
- DOOR OPENING
- Dimensions: X (distance from frame to panel edge) and DOOR OPENING (total width of the opening).



MINIMUM FLOOR HEIGHT BASED ON OPENING HEIGHT OF DOOR		
OPENING HEIGHT OF DOOR	REGULAR TYPE DOOR	*PASS TYPE DOOR
6'-6"	10'-3"	9'-3"
7'-0"	11'-0"	9'-9"
7'-6"	11'-9"	10'-3"
8'-0"	12'-6"	10'-9"
8'-6"	13'-3"	11'-3"
9'-0"	14'-0"	11'-9"
10'-0"	15'-6"	12'-9"

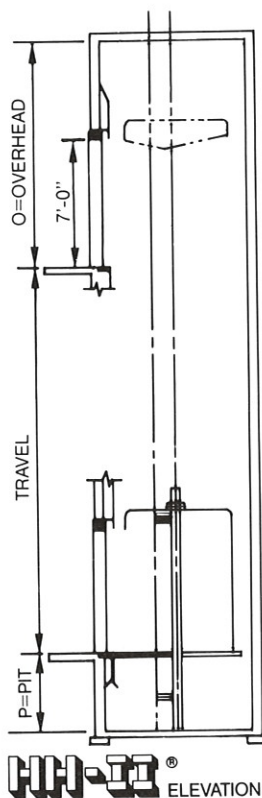
\*Minimum floor heights shown for pass type doors may be reduced by using special constructed doors. Consult your local Montgomery Professional for exact information for your drawings.

### DIMENSION KEY

X - 12" minimum return required for motorized door of either type shown.

X - 9" minimum return required for manual door of either type shown. Minimum pit depth = 1/2 door height plus 6". Pit depth for door may be more or less than pit depth required for elevator, depending on height of door. Door frames must extend to the floor beam above unless walls are poured concrete or brick.

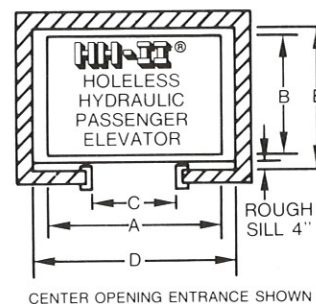
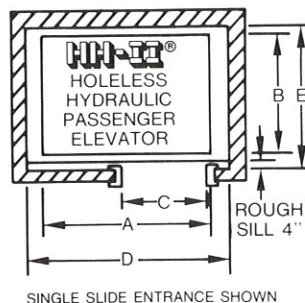




## **Holeless Hydraulic:**

HH-II Holeless Hydraulic Elevators offer very competitive pricing as well as extremely short lead time for fabrication, shipment and installation. The HH-II line of Holeless Hydraulic Elevators is offered in two sizes; each designed to service two landings in line. Car speeds of 80 FPM and 125 FPM are available. All necessary approvals are accomplished on a single sheet!

Because of the broad range of STANDARD FEATURES on the HH-II, Montgomery is able to fabricate and ship all necessary material in as little as six weeks from the date of order and approval receipt. However, there is no sacrifice in the flexibility of entrance and decor options to "customize" your HH-II Holeless Hydraulic Passenger Elevator. The Montgomery Triad Passenger Elevator Car is standard on the HH-II.



HH-II CAPACITIES-SPEEDS-GENERAL DATA-SPACE REQUIREMENTS				
Type		Holeless Hydraulic		
Service		Passenger		
Speed		80 FPM & 125 FPM		
Min. Travel		8'-4"		
Max. Travel		Consult your Montgomery Professional		
Max. Landings		2 Inline		
Capacity		2000 lbs.		2500 lbs.
Clear Car Size (Wide x Deep)		5'-8" x 4'-3"		6'-8" x 4'-3"
Alphabetical Dimensions	A	6'-0"		7'-0"
	B	5'-0"		5'-0"
	C	3'-0"		3'-6"
	D	7'-4"		8'-4"
	E	5'-9"		5'-9"
Pit (P) & Overhead (O)		Pit depth and clear overhead dimensions may be varied to suit building conditions. Consult your Montgomery Professional.		
Machine Room (W x D x H)		7'-6" x 5'-0" x 7'-6" (min.)		
Hoistway Entrance Types (All 7'-0" High): Standard Optional Optional		Single Slide R/H Single Slide L/H Center Opening		

## HH-II and MX-3 Notes:

- HANDICAPPED REQUIREMENTS AVAILABLE TO MEET NEII STANDARDS, LOCAL CODES OR LAWS.  
National Elevator Industry, Inc. (NEII)  
Handicapped Standards are:  
Placement of car controls, hall buttons and phone (or intercommunication equipment) for easy access.  
Tactile markings for operating switches, buttons and hoistway door jambs.  
Handrails in car — dual ray door protection — audible signals in car position indicator and lanterns.  
CAR SIZE: Certain minimums may apply. Consult your Montgomery Professional.
- For hoistway entrance and sill detail information see page 7.
- A legal machine room meeting code requirements and ventilated with temperature

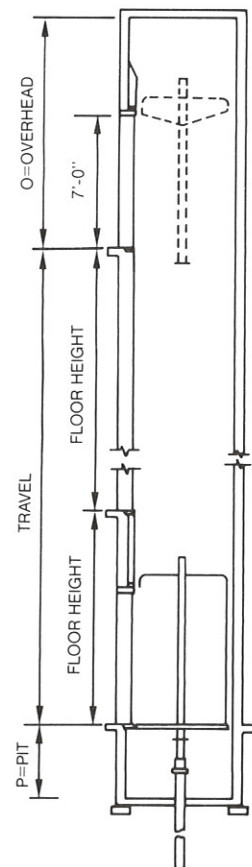
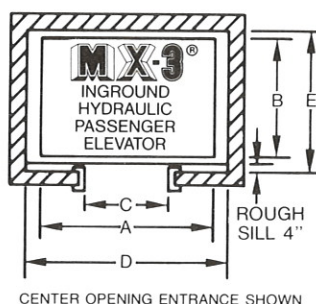
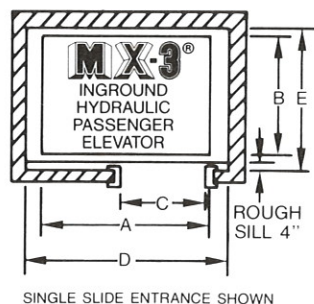


# STANDARDS OF EXCELLENCE

## MX-3<sup>®</sup> Inground Hydraulic:

The MX-3 Standard Hydraulic Passenger Elevator is born from the technologies initially developed for Montgomery's HH-II product line. The MX-3 is an Inground Hydraulic Elevator which offers very competitive pricing as well as extremely short lead time for fabrication, shipment and installation. The MX-3 line of Inground Hydraulic Elevators is offered in three sizes; each designed to service three landings in line. Car speeds of 80 FPM and 125 FPM are available. All necessary approvals are accomplished on a single sheet!

Because of the broad range of STANDARD FEATURES on the MX-3, Montgomery is able to fabricate and ship all necessary material in as little as eight weeks from the date of order and approval receipt. However, there is no sacrifice in the flexibility of entrance and decor options to "customize" your MX-3 Inground Hydraulic Passenger Elevator. The Montgomery Triad Passenger Elevator Car is standard on MX-3.



MX-3<sup>®</sup> ELEVATION

- between 65° and 100°F must be provided.
4. Pit depth and overhead clearance are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
5. Consult your local Montgomery Office for more information regarding Notes 3 and 4.
6. All data is general. Consult your local Montgomery Professional for exact information for your working drawings.
7. R/H = RIGHT HAND  

i.e. Standing in car facing door  
 Door OPENS to right.

L/H = LEFT HAND

### HH-II Expanded Application:

Maximum travel for HH-II has been increased where provisions for partial inground jack installation are provided. Consult your Montgomery Professional for more details on this expanded application.

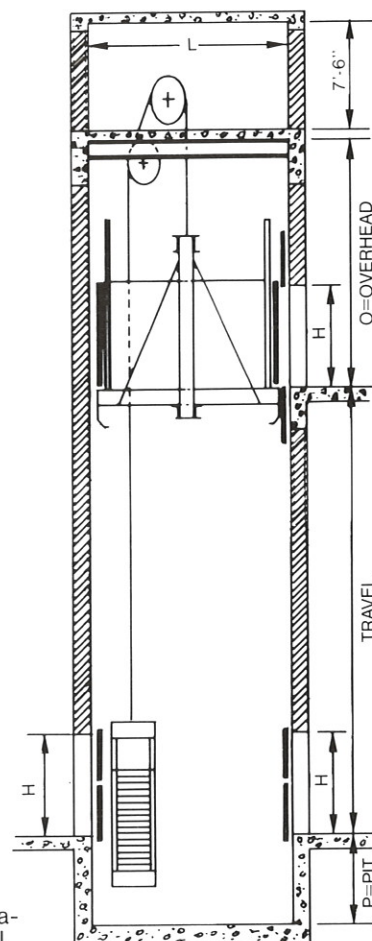
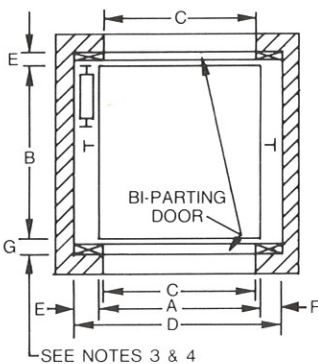
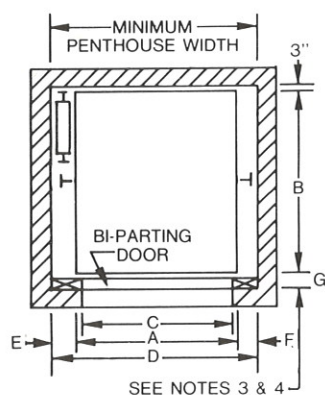
MX-3 CAPACITIES-SPEEDS-GENERAL DATA-SPACE REQUIREMENTS				
Type		Inground Hydraulic		
Service		Passenger		
Speed		80 FPM & 125 FPM		
Min. Travel		16'-8"		
Max. Travel		Consult your Montgomery Professional		
Max. Landing		3 Inline		
Capacity		2000 lbs.	2500 lbs.	3000 lbs.
Clear Car Size (Wide x Deep)		5'-8" x 4'-3"	6'-8" x 4'-3"	6'-8" x 4'-9"
Alphabetical Dimensions	A	6'-0"	7'-0"	7'-0"
	B	5'-0"	5'-0"	5'-6"
	C	3'-0"	3'-6"	3'-6"
	D	7'-4"	8'-4"	8'-4"
	E	5'-9"	5'-9"	6'-3"
Pit Depth (P)		4'-0"	4'-0"	4'-0"
Clear Overhead (O)		12'-2" @ 80 FPM 12'-4" @ 125 FPM		
Machine Room (W x D x H)		7'-6" x 5'-0" x 7'-6" (min.)		
Hoistway Entrance Types (All 7'-0" High):		Single Slide R/H Single Slide L/H Center Opening		



## Traction:

Traction Freight Elevators meet and exceed the heavy duty requirements of freight type loading. Special applications are available to meet unusual and hazardous conditions. As an optional feature we recommend our automatic load weighing device, which warns against overloading. Also recommended are power operated hoistway doors and car gate(s) for medium and heavy duty installations.

For freight door details see page 7.



For further information regarding ANSI/ASME Freight Elevator Loading Classifications (Classes A, B, C-1, C-2 & C-3) consult your local Montgomery Professional.

### LIGHT AND MEDIUM DUTY FREIGHT ELEVATORS

CAPACITY	2500#	3000#	4000#	6000#	8000#
A	5'- 4"	6'- 4"	6'- 4"	8'- 4"	8'- 4"
B	7'- 0"	8'- 0"	8'- 0"	10'- 0"	10'- 0"
C	5'- 0"	6'- 0"	6'- 0"	8'- 0"	8'- 0"
D	7'-10"	8'-10"	8'-10"	10'-10"	10'-10"
E	1'- 7"	1'- 7"	1'- 7"	1'- 7"	1'- 7"
F	11"	11"	11"	11"	11"
L	13'- 0"	14'- 0"	14'- 0"	14'- 0"	14'- 0"

### MINIMUM PIT & OVERHEAD DIMENSIONS FOR LIGHT & MEDIUM DUTY FREIGHT ELEVATORS

CAR SPEED	50	75	100	200
O	16'-0"	16'-0"	16'-0"	16'-0"
P	5'-6"	5'-6"	5'-6"	6'-0"

### HEAVY DUTY POWER TRUCK LOADING FREIGHT ELEVATORS

CAPACITY	10,000#	12,000#	16,000#	18,000#	20,000#
A	8'- 4"	10'- 4"	10'- 4"	10'- 4"	12'- 4"
B	12'- 0"	14'- 0"	14'- 0"	16'- 0"	20'- 4"
C	8'- 0"	10'- 0"	10'- 0"	10'- 0"	12'- 0"
D	11'- 4"	13'- 6"	14'- 0"	14'- 2"	16'- 6"
E	1'- 7"	1'- 7"	1'- 7"	1'- 7"	1'- 7"
F	11"	11"	11"	11"	11"
L	14'- 0"	15'- 0"	15'- 0"	17'- 0"	21'- 0"

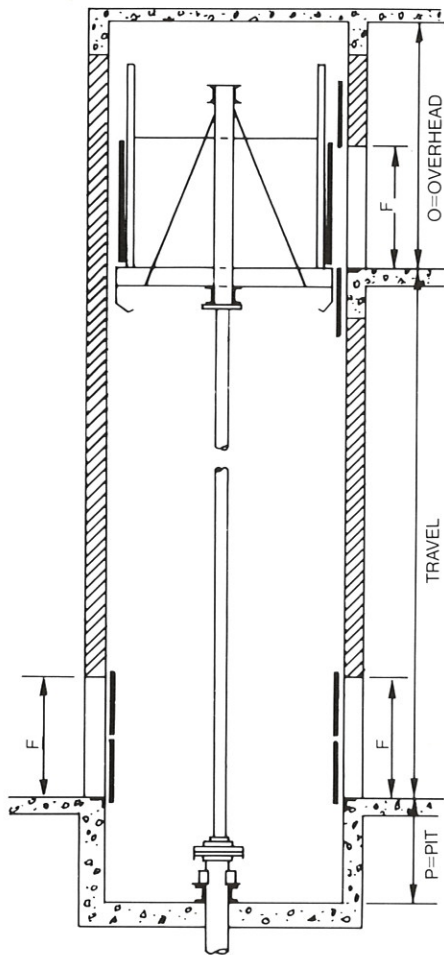
### MINIMUM PIT & OVERHEAD DIMENSIONS FOR HEAVY DUTY POWER TRUCK FREIGHT ELEVATORS

CAR SPEED	50	75	100	200
O	Consult your Montgomery Professional			
P				

#### NOTES:

- Pit depths, overhead clearance and penthouse sizes are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
- For capacities over 20,000 lbs. or speeds over 200 f.p.m., consult your Montgomery Professional.
- Dimension G = 5" for regular type counter balanced hoistway doors and 6¾" for pass type counter balanced hoistway doors.
- Pass type hoistway doors are required when floor heights are less than 11'-0" for 7'-0" openings and less than 14'-0" for 9'-0" openings. See chart on page 7 for other door sizes.
- Dimension H = 7'-0" on light & medium duty and 8'-0" (or as required) for heavy duty doors. Doors higher than 8'-0" require additional overhead height.
- For large heavy duty doors consult your Montgomery Professional.
- All data is general. Consult your local Montgomery Professional for exact information for your working drawings.
- For reactions, consult your local Montgomery Professional.

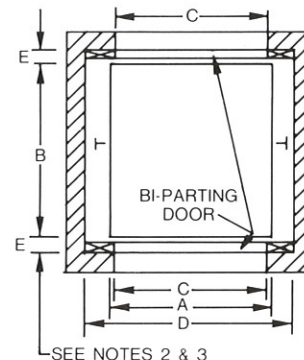
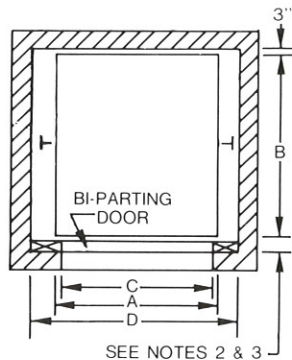




### Hydraulic:

Hydraulic Freight Elevators also meet and exceed the heavy duty requirements of freight type loading. They are recommended for nominal speed and travel requirements. Features of this type elevator include minimum hoistway clearances, economical design of the hoistway and elimination of the overhead machine room. The recommended machine room location is at the lowest landing adjacent to the hoistway, but can be located in a semi-remote area from the hoistway.

For freight door information see page 7.



For further information regarding ANSI/ASME Freight Elevator Loading Classifications (Classes A, B, C-1, C-2 & C-3) consult your local Montgomery Professional.

#### LIGHT AND MEDIUM DUTY FREIGHT ELEVATORS

CAPACITY	2000#	3000#	4000#	5000#	6000#	8000#
A	5'-0"	5'-6"	6'-6"	8'-6"	8'-6"	8'-6"
B	6'-0"	7'-0"	8'-0"	10'-0"	12'-0"	12'-0"
C	4'-8"	5'-2"	6'-2"	8'-2"	8'-2"	8'-2"
D-manual doors	6'-4"	6'-10"	7'-10"	9'-10"	10'-0"	10'-6"
D-power doors	6'-10"	7'-4"	8'-4"	10'-4"	10'-6"	10'-6"
O-7'-0" high doors	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"
O-8'-0" high doors	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
P	4'-6"	4'-6"	4'-6"	4'-6"	4'-6"	5'-0"

#### HEAVY DUTY POWER TRUCK LOADING FREIGHT ELEVATORS

CAPACITY	10,000#	12,000#	16,000#	18,000#	20,000#
A	10'-6"	10'-6"	10'-6"	10'-6"	12'-6"
B	14'-0"	14'-0"	16'-0"	16'-0"	20'-0"
C	10'-2"	10'-2"	10'-2"	10'-2"	12'-2"
D-manual doors	12'-6"	12'-6"	12'-6"	12'-6"	14'-6"
D-power doors	12'-6"	12'-6"	12'-6"	12'-6"	14'-6"
O-7'-0" high doors	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"
O-8'-0" high doors	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
P	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"

#### NOTES:

- Dimensions O and P are based on car speeds up to 150 fpm.
- Dimension E = 5" for regular type counter balanced hoistway doors and 6 3/4" for pass type counter balanced hoistway doors.
- Pass type hoistway doors are required when floor heights are less than 11'-0" for 7'-0" openings and less than 14'-0" for 9'-0" openings. See chart on page 7 for other door sizes.
- Dimension F = 7'-0" on light and medium duty, 8'-0" or as required for heavy duty.
- A legal machine room meeting Code requirements and ventilated with temperature maintained between 65° and 100°F, must be provided. Machine room location preferably should be at the lowest landing adjacent to the hoistway. Machine room size varies depending on capacity and speed of elevator. Consult your Montgomery Professional for the exact size.

- Pit depths and overhead clearances are in accordance with ANSI/ASME code requirements. Local codes may vary these requirements.
- Layout and dimensions shown for freight elevators based on bi-parting counter-balanced type hoistway doors.
- Consult your local Montgomery Office for more information regarding Notes 5 and 6.
- For capacities over 20,000 lbs. and for large heavy doors, consult your Montgomery Professional.
- All data is general. Consult your local Montgomery Professional for exact information for your working drawings.
- For reactions, consult your local Montgomery Professional.



Escalators move more people at a lower cost per passenger than any other form of vertical transportation. They may be used as the primary carrier in retail buildings, in transportation terminals and in highly populated office buildings. They can also effectively augment elevator systems, especially in high rise office buildings, permitting elevator systems to provide more effective service to other areas of the building.

**EFFICIENCY:** two steps on the same level at entry and exit speeds and safeguards traffic "a montgomery exclusive"

**DESIGN/ENGINEERING:** heavy duty construction for long life and trouble free operation

**LOW COST MAINTENANCE:** attained by high quality heavy duty equipment

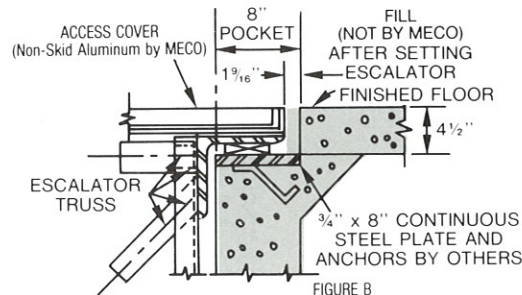
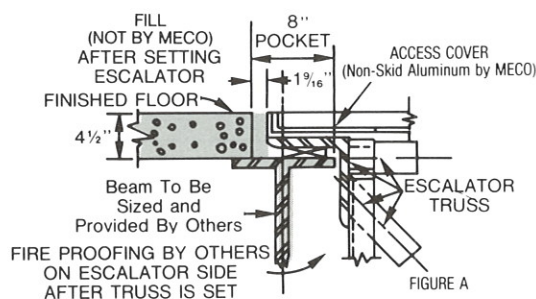
**APPEARANCE:** durable modern materials retain attractive appearance

**SAFETY:** more and better safety devices than any other escalator

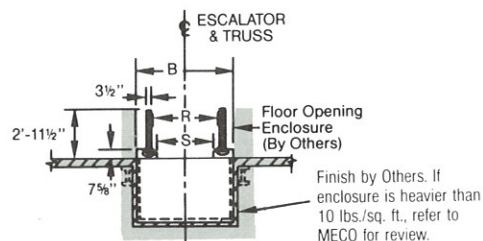
**DEPENDABILITY:** quickly and easily serviced . . . less down time

**MANUFACTURE:** designed and built in the **UNITED STATES**

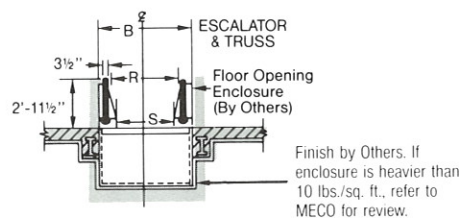
### crystal 2000<sup>®</sup> glass balustrade & solid balustrade—end support details



### crystal 2000<sup>®</sup> glass balustrade—section

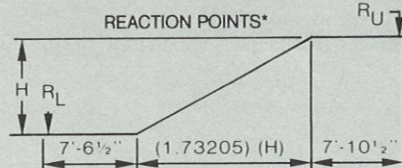


### solid balustrade—section



#### ESCALATOR REACTIONS\*

3E	ESCALATOR
RL	$(550)H + 10,000$ RU = $(550)H + 11,100$
4E	ESCALATOR
RL	$(660)H + 10,570$ RU = $(660)H + 11,670$
5E	ESCALATOR
RL	$(660)H + 11,650$ RU = $(660)H + 12,750$



\*Reaction formulae based on:  
50% dead load  
25% live load  
25% impact  
Includes weight of 10 lbs./sq. ft. covering on sides and soffit.

Consult MECO for reactions if intermediate support is used.

#### WIDTH CHART

Model No.	Capacity Persons Per Hour At		Rated Width R	Step Width S	Overall Width B (Note 1)	Well Width Rough Opening (Note 2)
	90 fpm	120 fpm				
3E	5,000	6,500	32"	24"	4'-4"	Overall
4E	7,000	9,000	40"	32"	5'-0"	Width
5E	8,000	10,000	48"	40"	5'-8"	B + 2"

#### LAYOUT NOTE:

The following information, when available, must be shown on all layouts for use of the balustrade manufacturer.

D — Dimension from finished floor to the finished plaster ceiling or bottom of smoke guard.

E-F — Detail and kind of wellway railings or fire shutter enclosures which are not furnished by the balustrade manufacturer.

SHADED AREAS NOT BY MECO









## Escalator Standard Equipment:

### STANDARD EQUIPMENT INCLUDES

complete truss fabricated of welded, hot rolled, structural steel tubes; precision worm gear drive; roller and ball bearings throughout; flange mounted motor; permanent magnet brake; portable controller,\* complete electrical and mechanical safety system; reversing stations; interchangeable precision assembled steps with cleated risers; matched endless step chains; accurately aligned track system; complete balustrade including skirts; inner panels, decks and endless moving neoprene rubber handrail; floor access covers to upper and lower machinery well both within truss area.

### REQUIREMENTS

1. Floor around escalator is not to be laid until escalator is installed.
2. Flooring within 8" of escalator floor access doors (top and bottom) is not to be laid until floor access doors are in place.
3. Electric conduits, sprinkler pipes or soffit lights must be installed entirely outside of truss at all points except where codes require sprinkler protection of escalator machinery. Consult Montgomery for location within truss.
4. No walls or other parts of building structure are to be carried on truss.

\*CSA listed

### OWNER TO PROVIDE AND INSTALL THE FOLLOWING

1. All escalator supports including bearing plates if concrete beams are used.
2. 3 phase, 60 cycle power supply and 110 volt light supply to controller.
3. Combination lamp receptacle and convenience outlet in machine room and lower reversing station.
4. The material used for the exterior is not to exceed 10 lbs./sq. ft. for the enclosure of the escalator.
5. All items marked "by others."

CONTACT ANY OF OUR SALES AND SERVICE OFFICES TO OBTAIN EXPERT PLANNING ASSISTANCE INCLUDING COMPLETE LAYOUT AND SPECIFICATIONS

### MOTOR HORSEPOWER REQUIREMENTS

### POWER DATA

#### 90 FPM SIZE FLOOR HEIGHT

10 HP	3E	5'-6" to 24'-0"
	4E	5'-6" to 17'-0"
	5E	5'-6" to 15'-0"
15 HP	3E	Over 24'-0" to 36'-0"
	4E	Over 17'-0" to 26'-0"
	5E	Over 15'-0" to 23'-0"
20 HP	3E	Over 36'-0" to 42'-0"
	4E	Over 26'-0" to 30'-0"
	5E	Over 23'-0" to 26'-0"

#### 120 FPM

10 HP	3E	5'-6" to 19'-0"
	4E	5'-6" to 14'-0"
	5E	5'-6" to 12'-0"
15 HP	3E	Over 19'-0" to 28'-0"
	4E	Over 14'-0" to 20'-0"
	5E	Over 12'-0" to 18'-0"
20 HP	3E	Over 28'-0" to 32'-0"
	4E	Over 20'-0" to 23'-0"
	5E	Over 18'-0" to 21'-0"

#### 120/90 FPM (2 SPEED)

10/7.5 HP	3E	5'-6" to 16'-0"
	4E	5'-6" to 12'-0"
	5E	5'-6" to 11'-0"
15/11.25 HP	3E	Over 16'-0" to 24'-0"
	4E	Over 12'-0" to 18'-0"
	5E	Over 11'-0" to 16'-0"
20/15 HP	3E	Over 24'-0" to 32'-0"
	4E	Over 18'-0" to 23'-0"
	5E	Over 16'-0" to 21'-0"

#### 90 FPM

HP	200 VOLTS		460 VOLTS		575 VOLTS	
	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT
	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES
10	128.25	33.12	57.75	14.4	46.2	11.5
15	213.75	50.6	93.07	22.0	74.47	17.6
20	270.75	64.4	117.75	28.0	94.2	22.4

#### 120 FPM

HP	200 VOLTS		460 VOLTS		575 VOLTS	
	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT
	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES
10	130.5	29.4	56.77	12.8	45.45	10.2
15	191.25	47.4	83.1	20.6	66.45	16.5
20	264.75	60.0	114.97	26.1	91.95	20.9

#### 120/90 FPM (2 SPEED)

HP	200 VOLTS		460 VOLTS		575 VOLTS	
	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT	STARTING CURRENT	RUNNING CURRENT
	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES	IN AMPERES
10/7.5	135.75/105.75	30.8/25.9	69.75/62.25	14/12.9	54/47.25	11.1/10.4
15/11.25	190.5 /135.75	45/37.4	95.25/65.25	20.1/16.6	72/48	16.1/13.2
20/15	331.5 /186	64.5/49.7	130.5 /84.75	27/21.8	102.75/70.5	21.7/17.8

ALL POWER DATA BASED ON 3 PHASE 60 HERTZ



## Power Walks & Power Ramps:

provide fast, safe, high-volume horizontal, or combined horizontal and inclined (to 12 degrees) transportation of people within buildings, or outdoors. Exposition centers, stadiums, auditoriums, transportation terminals, parking lots to buildings and in or out of buildings are a few walk-ramp applications to transport people where walking is not advantageous.

### STANDARD EQUIPMENT INCLUDES

complete truss fabricated of welded, hot rolled, structural steel tubes (or combination of truss and tubular stanchion); precision worm gear drive; roller and ball bearings throughout; flange mounted motor; permanent magnet brake; portable controller; \* complete electrical and mechanical safety system; reversing stations; interchangeable precision assembled treadway pallets with interlocking treads on adjacent pallets; matched endless pallet chains; accurately aligned track system; complete balustrades including inner panels; decks with endless moving neoprene rubber hand rail; and floor access covers to upper and lower machinery wells both within truss area.

### BALUSTRADE APPLICATION

for use with Power Walks and/or Power Ramps may be either solid (e.g. stainless steel, bronze, etc.) or can be glass. This alternative is available for use on either side (e.g. either device may have a solid balustrade on one side and a glass balustrade on the other...or...intermediate sections of glass versus solid in the continuous run).

### CONSULT MONTGOMERY

Contact your local Montgomery Professional for application data, layout and/or specification data needed to plan a complete installation.

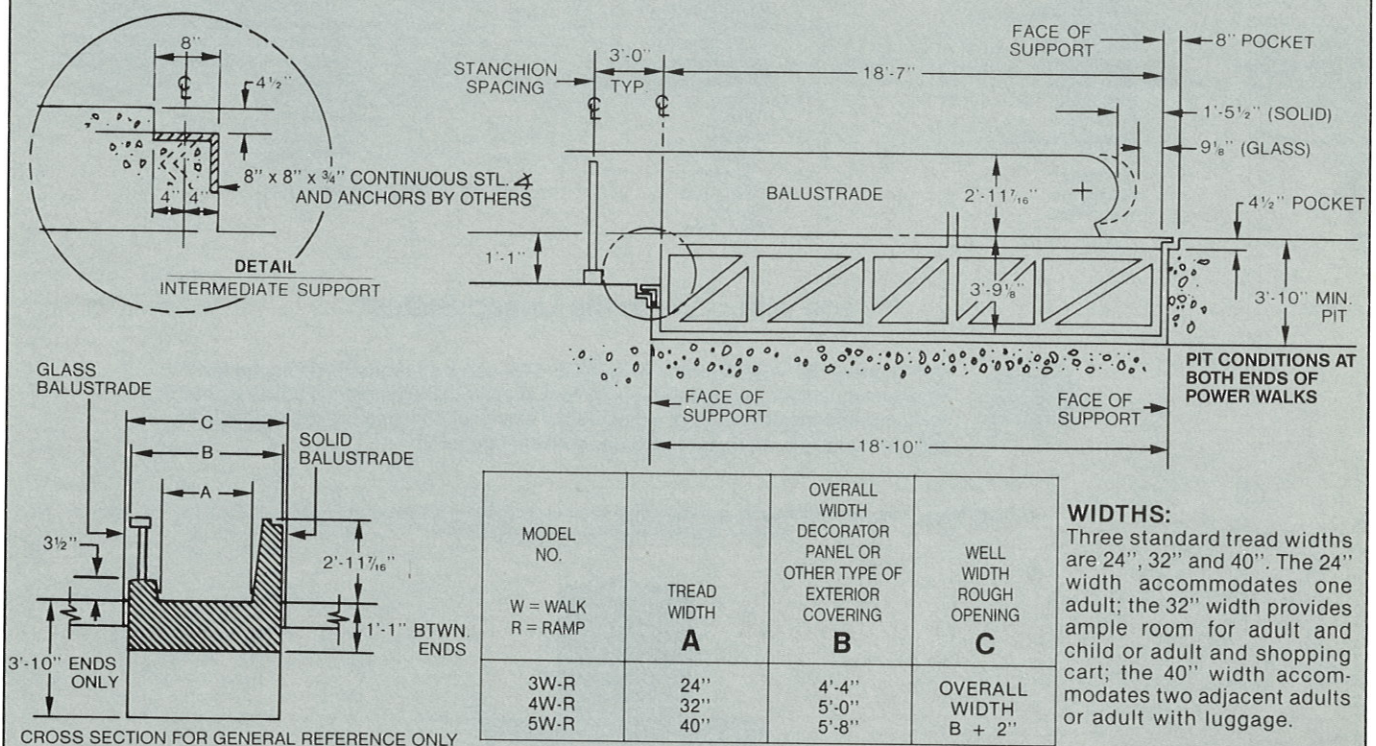
\*CSA listed



Lambert International Airport.  
St. Louis, Missouri.

## PLANNING POWER WALKS/POWER RAMP

Power Walk length in excess of 300 lineal feet requires special engineering evaluation. Consult your local Montgomery Professional. Any arrangement or combination of horizontal and inclines, to a maximum of 12 degrees, can be provided. Montgomery Power Walks can be designed in concert with Montgomery Power Ramps to provide transition from level to incline/decline to traverse existing elevated floors, etc. Such transition will occur within the "Face of Support" dimension shown below. The transition of elevation (incline/decline) requires a minimum of 13" in height.





# MONTGOMERY SALES/SERVICE OFFICES

## UNITED STATES

<b>Alabama</b> Birmingham Dothan Huntsville Mobile Montgomery	Hilo Honolulu Lihue Wailuku	Flint Grand Rapids Lansing Muskegon Traverse City	Toledo (Toledo Elev. & Machine Co.) Youngstown
<b>Alaska</b> Anchorage (CMW Company)	<b>Idaho</b> Idaho Falls	<b>Minnesota</b> Minneapolis-St. Paul	<b>Oklahoma</b> Enid Oklahoma City Tulsa
<b>Arizona</b> Phoenix Tucson	<b>Illinois</b> Bloomington Carbondale Champaign Charleston Chicago Danville Decatur Galesburg Kankakee LaSalle Moline (Corp. Hdqts.) Mt. Vernon Oak Brook Peoria Quincy (Wagner Elev. Serv., Inc.) Rock Island Rockford (Lamps Elev. Sales & Serv.) Springfield Sterling	<b>Mississippi</b> Biloxi Columbus Hattiesburg Jackson Meridian Vicksburg	<b>Pennsylvania</b> Clymer (Commercial Elev. Co.) Philadelphia (Contact MECO Home Office, Moline, IL) Pittsburgh (Commercial Elev. Co.)
<b>Arkansas</b> Fayetteville/Springdale Ft. Smith Little Rock	<b>Indiana</b> Fort Wayne (Early Elev. Corp.) Indianapolis Kokomo (Early Elev. Corp.) Lafayette Marion (Early Elev. Corp.) South Bend (Early Elev. Corp.) Terre Haute	<b>Missouri</b> Columbia Jefferson City Joplin Kansas City Kirksville (Wagner Elev. Serv., Inc.) St. Joseph St. Louis Springfield	<b>South Carolina</b> Charleston
<b>California</b> Fresno Irvine Long Beach Los Angeles Modesto Monterey Palm Springs Riverside Sacramento San Bernardino San Diego San Francisco San Jose Santa Maria Santa Rosa Stockton Torrance Vandenburg A.F.B.	<b>Iowa</b> Burlington (Wagner Elev. Serv., Inc.) Cedar Rapids Clinton Des Moines Dubuque Iowa City Ottumwa (Wagner Elev. Serv., Inc.) Sioux City (Carter Elev. Co., Inc.) Waterloo	<b>Montana</b> Billings Butte Great Falls Helena Missoula	<b>South Dakota</b> Aberdeen (Carter Elev. Co., Inc.) Rapid City (Carter Elev. Co., Inc.) Sioux Falls (Carter Elev. Co., Inc.)
<b>Colorado</b> Colorado Springs Denver Greeley	<b>Kansas</b> Dodge City Hays Lawrence Salina Topeka Wellington Wichita	<b>Nebraska</b> Lincoln Omaha	<b>Tennessee</b> Chattanooga Johnson City Knoxville Memphis Nashville (Capitol City Elev. Co., Inc.)
<b>Connecticut</b> Hartford Milford Norwalk Rocky Hill	<b>Kentucky</b> Bowling Green (Murphy Elev. Co.) Lexington (Murphy Elev. Co.) Louisville (Murphy Elev. Co.)	<b>Nevada</b> Las Vegas Laughlin Reno Stateline	<b>Texas</b> Amarillo Austin Beaumont Bryan-College Station Corpus Christi Dallas El Paso Forth Worth Galveston Houston Laredo Lubbock Midland Richardson San Antonio Tyler Waco
<b>District of Columbia</b> Washington D.C.	<b>Louisiana</b> Baton Rouge Lafayette New Orleans Shreveport	<b>New Jersey</b> (Contact MECO Home Office, Moline, IL)	<b>Utah</b> Ogden Salt Lake City
<b>Florida</b> Cocoa Daytona Beach Ft. Lauderdale Ft. Myers Ft. Walton Gainesville Jacksonville Lakeland Marco Island Miami Naples Orlando Panama City Pensacola Sarasota/Bradenton St. Petersburg Tallahassee Tampa West Palm Beach	<b>Maryland</b> Baltimore Beltville	<b>New Mexico</b> Albuquerque	<b>Vermont</b> Burlington
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