

Traction Passenger

Application Summary

This design utilizes a geared machine, ropes, and counterweights instead of hydraulic equipment. The main guide rails are mounted on each side of the car and an additional pair of counterweight rails is located on one side or at the rear. The geared machine, along with the related drive equipment, is generally located above the hoistway in a penthouse machine room. In some limited situations, it can be located next to the hoistway at a lower landing. This latter arrangement is referred to as a basement traction.

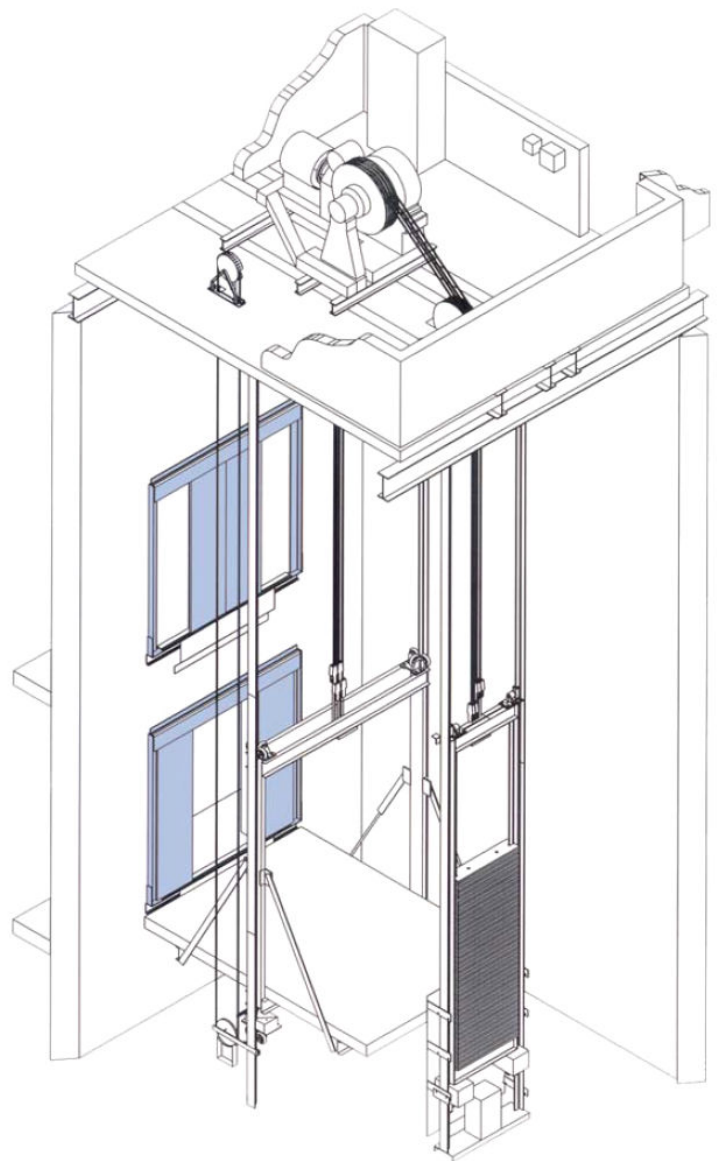
- This design can accommodate both **passenger** and **freight** elevator applications.

Advantages:

- No risk of oil contamination to the ground.
- Accommodates front and rear openings in any configuration.
- Available for both low and high capacity cars.
- Nearly unlimited floor travel is possible.
- Has greater power efficiency than hydraulic applications.
- Allows significantly higher car speeds than hydraulic designs.

Disadvantages:

- The material cost is substantially higher than that of any hydraulic application.
- There are structural building considerations because all of the loading forces affect the overhead beam.
- Elevator maintenance cost is generally greater than that of hydraulic elevators.
- Cycle time for securing the material package and installing it is generally longer than that of hydraulic elevators.



Traction Passenger, Low Rise Geared, Low Capacity

Cap.	Platform	Hoistway	Cab Height	Minimum Pit Depth	Minimum Overhead	Front (F) Rear (R)	Laminate Clear Inside	Door Type	Door Width	Max Speed FPM
2100	6'-0" x 5'-1"	7'-10" x 5'-9"	8'-0"	5'-2"	12'-6"	F	5'-9" x 4'-3 1/2"	1-SP	3'-0"	350
2100	6'-0" x 5'-8"	7'-10" x 6'-8 1/2"	8'-0"	5'-2"	12'-6"	F/R	5'-9" x 4'-3 1/2"	1-SP	3'-0"	350
2500	7'-0" x 5'-1"	8'-10" x 5'-9"	8'-0"	5'-2"	12'-6"	F	6'-9" x 4'-3 1/2"	1-SP	3'-6"	350
2500	7'-0" x 5'-8"	8'-10" x 6'-8 1/2"	8'-0"	5'-2"	12'-6"	F/R	6'-9" x 4'-3 1/2"	1-SP	3'-6"	350
3000	7'-0" x 5'-6"	8'-10" x 6'-2"	8'-0"	5'-2"	12'-6"	F	6'-9" x 4'-8 1/2"	1-SP	3'-6"	350
3000	7'-0" x 6'-1"	8'-10" x 7'-1 1/2"	8'-0"	5'-2"	12'-6"	F/R	6'-9" x 4'-8 1/2"	1-SP	3'-6"	350
3500	7'-0" x 6'-2"	8'-10" x 6'-10"	8'-0"	5'-2"	12'-6"	F	6'-9" x 5'-4 1/2"	1-SP	3'-6"	350
3500	7'-0" x 6'-9"	8'-10" x 7'-9 1/2"	8'-0"	5'-2"	12'-6"	F/R	6'-9" x 5'-4 1/2"	1-SP	3'-6"	350
3500 H	5'-4" x 8'-4"	7'-2" x 9'-2"	8'-0"	5'-2"	12'-6"	F	5'-1" x 7'-5"	2-SP	3'-6"	350
3500 H	5'-4" x 9'-0 1/2"	7'-2" x 10'-4"	8'-0"	5'-2"	12'-6"	F/R	5'-1" x 7'-5"	2-SP	3'-6"	350
4000	8'-0" x 6'-2"	9'-10" x 7'-0"	8'-0"	5'-2"	12'-6"	F	7'-9" x 5'-3"	2-SP	4'-0"	350
4000	8'-0" x 6'-8"	9'-10" x 7'-11 1/2"	8'-0"	5'-2"	12'-6"	F/R	7'-9" x 5'-0 1/2"	2-SP	4'-0"	350
4000 H	6'-0" x 8'-5"	7'-10" x 9'-3"	8'-0"	5'-2"	12'-6"	F	5'-9" x 7'-6"	2-SP	4'-0"	350
4000 H	6'-0" x 9'-1 1/2"	7'-10" x 10'-5"	8'-0"	5'-2"	12'-6"	F/R	5'-9" x 7'-6"	2-SP	4'-0"	350
4500 H	6'-0" x 9'-2"	7'-10" x 10'-0"	8'-0"	5'-2"	12'-6"	F	5'-9" x 8'-3"	2-SP	4'-0"	350
4500 H	6'-0" x 9'-10 1/2"	7'-10" x 11'-2"	8'-0"	5'-2"	12'-6"	F/R	5'-9" x 8'-3"	2-SP	4'-0"	350
5000 H	6'-0" x 9'-7 1/2"	7'-10" x 10'-5 1/2"	8'-0"	5'-2"	12'-6"	F	5'-9" x 8'-8"	2-SP	4'-0"	350
5000 H	6'-0" x 10'-3 1/2"	7'-10" x 11'-7"	8'-0"	5'-2"	12'-6"	F/R	5'-9" x 8'-8"	2-SP	4'-0"	350

Traction Passenger, Low Rise Geared, High Capacity

6000	7'-0" x 8'-6"	8'-10" x 9'-4"	8'-0"	5'-2"	12'-6"	F	6'-9" x 7'-7"	2-SP	4'-0"	350
6000	7'-0" x 9'-2 1/2"	8'-10" x 10'-6"	8'-0"	5'-2"	12'-6"	F/R	6'-9" x 7'-7"	2-SP	4'-0"	350
8000	8'-4" x 10'-0"	10'-2" x 10'-10"	8'-0"	5'-2"	13'-0"	F	8'-1" x 9'-1"	2-SP	4'-0"	300
8000	8'-4" x 10'-8 1/2"	10'-2" x 12'-0"	8'-0"	5'-2"	13'-0"	F/R	8'-1" x 9'-1"	2-SP	4'-0"	300
10000	8'-4" x 11'-8 1/2"	10'-4" x 12'-6 1/2"	8'-0"	5'-2"	13'-0"	F	8'-1" x 10'-9 1/2"	2-SP	4'-0"	200
10000	8'-4" x 12'-5"	10'-4" x 13'-8 1/2"	8'-0"	5'-2"	13'-0"	F/R	8'-1" x 10'-9 1/2"	2-SP	4'-0"	200
12000	10'-4" x 11'-6"	12'-4" x 12'-4"	8'-0"	5'-6"	13'-0"	F	10'-2" x 10'-7"	2-SP	4'-0"	150
12000	10'-4" x 12'-2 1/2"	12'-4" x 13'-6"	8'-0"	5'-6"	13'-0"	F/R	10'-2" x 10'-7"	2-SP	4'-0"	150
15000	12'-0" x 11'-5"	14'-0" x 12'-3"	8'-0"	5'-6"	13'-0"	F	11'-9" x 10'-6"	2-SP	4'-0"	100
15000	12'-0" x 12'-1 1/2"	14'-0" x 13'-5"	8'-0"	5'-6"	13'-0"	F/R	11'-9" x 10'-6"	2-SP	4'-0"	100

H = Hospital Elevator

Speeds exceeding 200 FPM require additional overhead and pit depth; <i>see chart on right</i> . Minimum Pit depth is based on the use of spring buffers. Add 5" to pit depth if oil buffers are required or car speed exceeds 200 FPM.	Speed	Additional Overhead	Additional Pit Depth
	225 FPM	6"	5"
	250 FPM	7"	5"
	300 FPM	8"	5"
	350 FPM	9"	5"



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