Dedicated to People Flow™

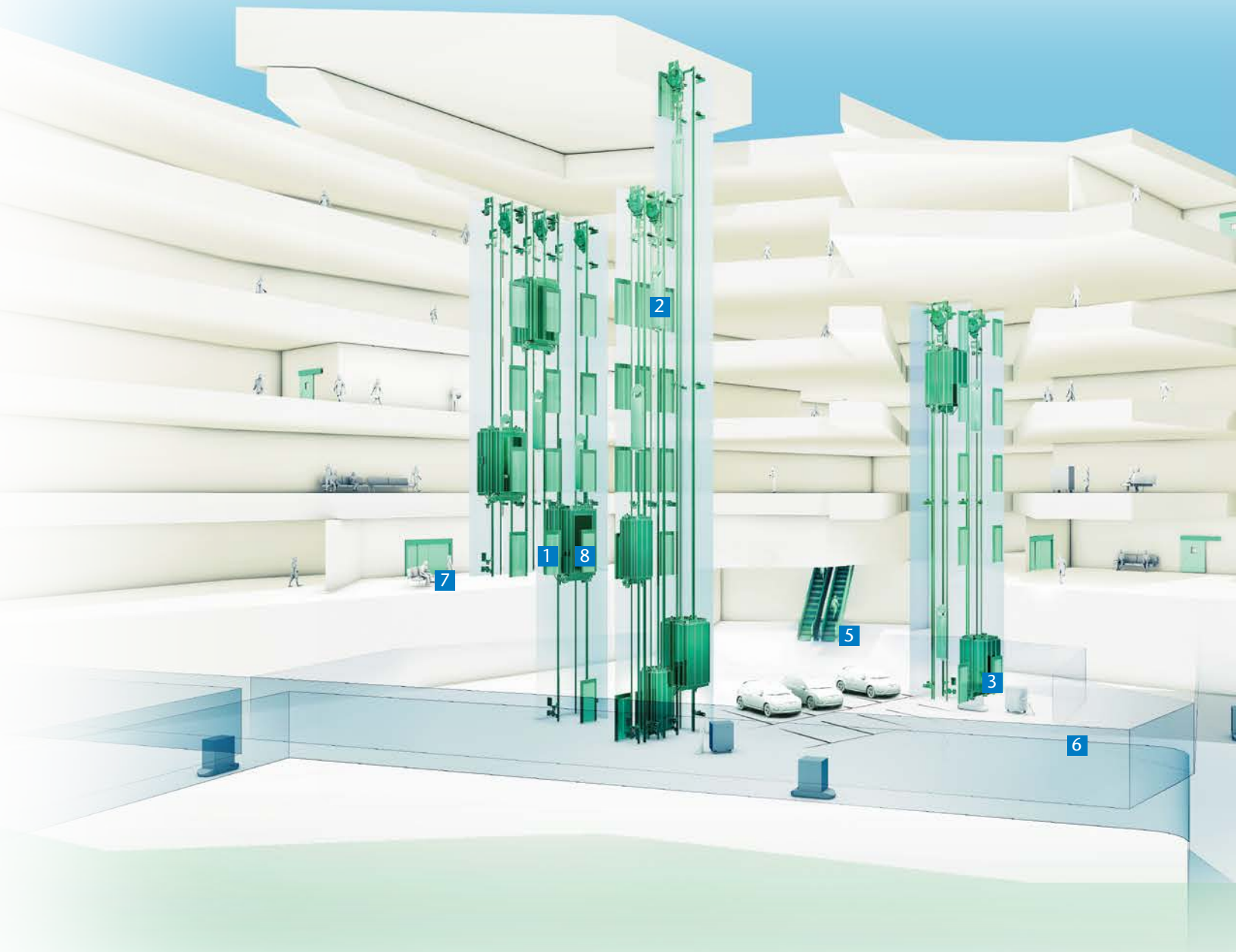
KONE

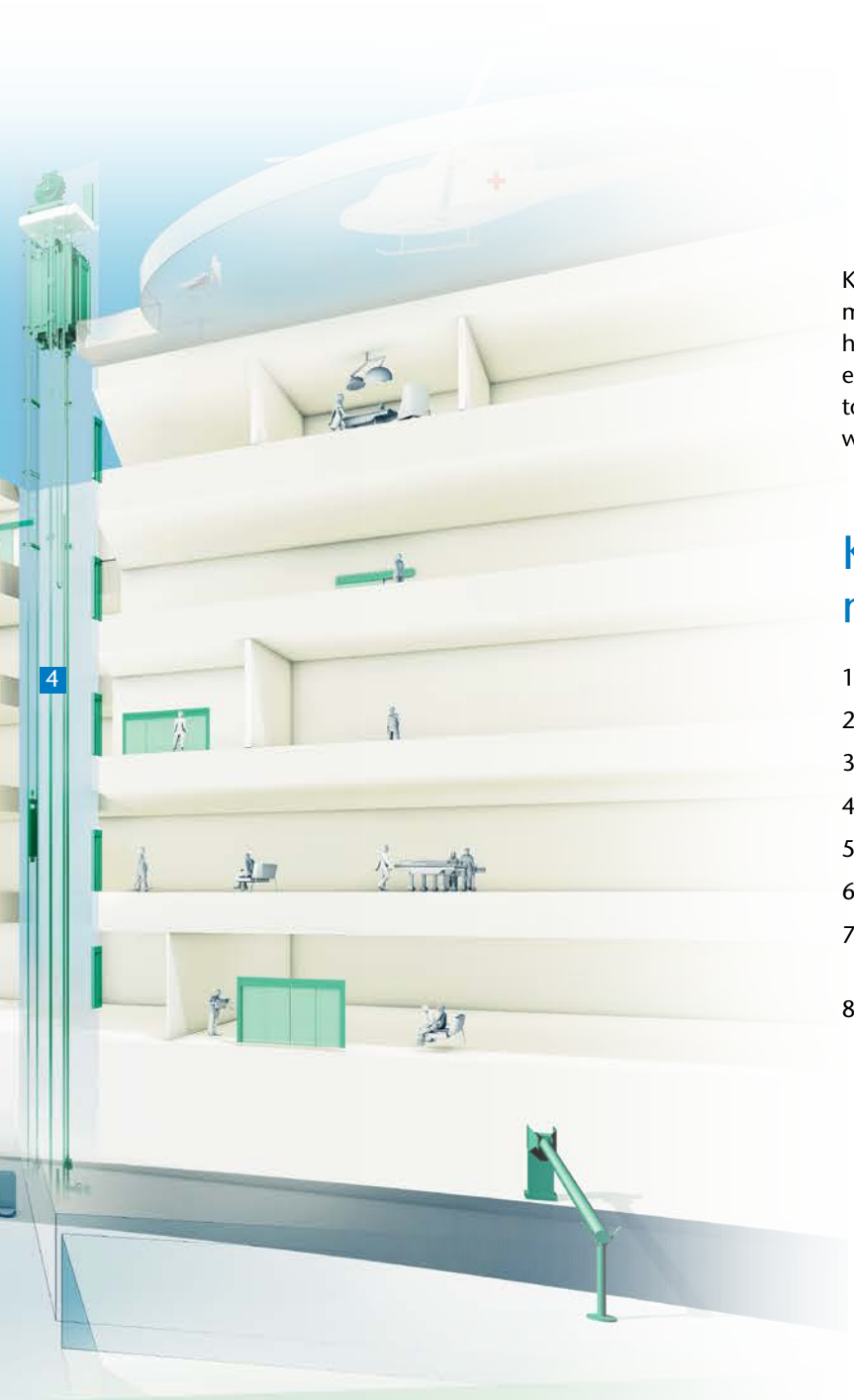
MANAGING THE FLOW OF PEOPLE AND MATERIALS IN MEDICAL FACILITIES

KONE Solutions for Medical Facilities

A full range of solutions for demanding medical facilities

A modern hospital or medical facility offers many challenges for managing the flow of people and materials. Patients in beds need to be transported quickly and smoothly with accompanying staff and medical equipment. Food, laundry, medical supplies and equipment must be transported without interruption. Elevators are used by both patients and visitors, many of whom may have special mobility requirements.





KONE has a long history of designing, implementing, maintaining and modernizing solutions in demanding hospital environments. By taking each phase of the equipment's lifetime into consideration, KONE works to keep the facility operating at maximum service, with a low total cost of ownership.

KONE solutions for medical facilities

1. Visitor/Passenger elevators
2. Patient/Service elevators
3. Freight elevators
4. Trauma elevators
5. Escalators
6. Loading dock
7. Automated guided vehicles integrated with elevators and building management systems
8. Destination control systems for elevator groups

A complete product portfolio – built for demanding medical applications

KONE delivers a full range of elevators and escalators to ensure that patients, staff, visitors and materials move smoothly, efficiently and reliably into, within and out of the hospital.

Elevators

When designing KONE elevators for use in hospitals, we have paid particular attention to safety, reliability, smooth and quiet operation, eco-efficiency and hygiene.

All KONE elevator solutions are KONE EcoDisc® powered and utilize proven KONE components.

Energy-efficient and cost-effective

- Energy-efficient drives and hoisting systems with regenerative features
- Energy-saving LED and fluorescent lighting solutions
- Standby solutions to save energy when equipment is not in use

Efficient management of people flow

- KONE Polaris™ destination control system to improve user guidance and boost traffic handling
- Centralized and exchange of data between KONE systems and other elevator and escalator monitoring, command and management with KONE E-Link™
- Easy exchange of data and integration of KONE solutions with other facility management systems through open standard interfaces

Safe, smooth and reliable

- Accurate leveling to improve safety, comfort and ease of use; important for elderly and disabled people and when loading beds and carts
- Reliable permanent-magnet based gearless KONE EcoDisc hoisting machines with excellent track record; more than 300,000 units in operation globally
- Meets the strictest requirements for electromagnetic compatibility: EN-12016

Space-efficient

- KONE Machine Room-Less elevators save space, allowing more room for patient care and giving architectural freedom for design
- Enables elevator to serve the top floor without a machine room on the roof

Hygienic and visually pleasing

- Designs and colors comforting for patients and staff
- Durable and easy-to-clean materials

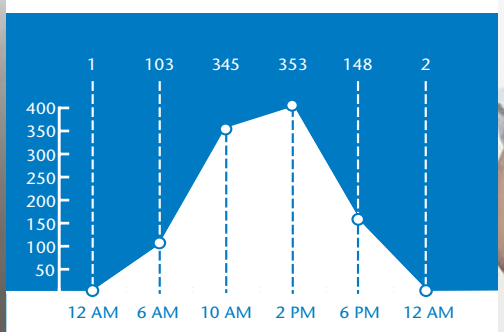
Escalators

Escalators can ensure a smooth flow of people in large hospital building complexes and, for example, serve underground floors or car parks.

- Dedicated product range to match the expected traffic intensity
- Energy-saving features like efficient drives and LED lighting
- Lubrication-free chain that is oil- and odor-free and easier to clean and maintain
- Possibility to connect escalators to central monitoring systems so they can be controlled and managed remotely from a single location even over a large hospital complex

Understanding the flow of people and materials in hospitals

In hospitals the elevators are in constant use from early morning to late evening every day of the week. Sudden increases in elevator service may be caused by lunch time or visitor hours. These and even the extreme conditions like possible evacuation of the whole building needs to be analyzed and simulated during the planning phase.



Intensity of elevator starts/hour in a 15-floor hospital building

Elevator solutions for all medical applications

Elevators are essential for ensuring the smooth flow of people and materials in the hospital. KONE provides a full range of elevator solutions, for supplies and equipment, staff, visitors and patients, whether they are coming in the front door or landing on the roof. When designing solutions for a medical environment, our design criteria is extreme reliability, safety and energy-efficiency, lower cost of ownership and minimum environmental impact. In hospital environments special attention is paid to hygiene. Materials have been carefully selected to be aesthetically pleasing and easy to clean.

KONE patient/trauma elevators

are designed especially for hospital environments, offering the following special features:

- **Specialized car dimensions** – to accommodate the bed and medical equipment, with wide-opening doors and deep car size
- **Smooth loading and unloading** – precise leveling for easy entry of wheelchairs, beds and patients
- **Priority/emergency calls** – for immediate availability during emergency situations
- **Quiet, smooth operation** – to prevent disturbance to traveling patients and in rooms near the elevator shaft

KONE patient/service elevators

are designed especially for hospital environments, offering the following special features:

- **Specialized car dimensions** – to accommodate the bed and medical equipment, with wide-opening doors and deep car size
- **Machine Room-Less** – enables the elevator to serve the top floor without a machine room on the roof of the hospital
- **Smooth loading and unloading** – precise leveling for easy entry of wheelchairs, beds and patients
- **Priority/emergency calls** – for immediate availability during emergency situations
- **Quiet, smooth operation** – to prevent disturbance to traveling patients and in rooms near the elevator shaft

KONE freight elevators

are specifically designed to move heavy loads, offering the following special features:

- **Fast and durable hoisting** – to cope with rough treatment
- **Machine Room-Less** – enables elevator to serve the top floor without a machine room on the roof of the hospital
- **A smooth ride** – to handle fragile loads
- **Accurate leveling** – for easy loading and unloading
- **Full-width doors** – that maximize use of space in the car

KONE visitor/passenger elevators

are designed to transport visitors and staff smoothly and efficiently, offering the following special features:

- **Space efficiency** – maximum car sizes with minimum shaft dimensions. Increases passengers' comfort while saving construction costs
- **Machine Room-Less** – enables the elevator to serve the top floor without a machine room on the roof of the hospital
- **Design** – wide selection of design packages to match the building's architecture
- **Wide duty range** – for the people flow requirements of any hospital

KONE Medical Facilities

Trauma

TYPE
Machine Room Above

MAX TRAVEL
250 ft. (76 m)

MAX LANDINGS
30

SPEED
200, 350, 500 fpm
(1.00, 1.78, 2.54 m/s)

CAR HEIGHT F
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

ENTRANCE HEIGHT G
7, 8 or 9 ft.
(2134, 2438 or 2743 mm)

Trauma — A | A SEISMIC | B | C | D | E

	CAPACITY LBS. (kg)	OPENING TYPE (mm)	HOISTWAY WIDTH (mm)	HOISTWAY WIDTH (mm)	HOISTWAY DEPTH (mm)	INTERIOR WIDTH (mm)	INTERIOR DEPTH (mm)	DOOR WIDTH (mm)
Front Opening	6000 (2724)	2SP-2SPCO	9'-1" (2769)	9'-4" (2845)	11'-5¼" (3486)	6'-0" (1829)	9'-8" (2946)	5'-0" (1524)
	8000 (3632)	2SP-2SPCO	10'-3" (3124)	10'-6" (3200)	11'-9¼" (3588)	7'-0" (2134)	10'-0" (3048)	6'-0" (1829)
	10,000 (4540)	2SP-2SPCO	11'-6" (3505)	11'-9" (3581)	13'-5½" (4102)	8'-0" (2438)	11'-0" (3353)	6'-0" (1829)
Front & Reverse Opening	6000 (2724)	2SP-2SPCO	9'-1" (2769)	9'-4" (2845)	12'-4¼" (3766)	6'-0" (1829)	9'-8" (2946)	5'-0" (1524)
	8000 (3632)	2SP-2SPCO	10'-3" (3124)	10'-6" (3200)	12'-8½" (3874)	7'-0" (2134)	10'-0" (3048)	6'-0" (1829)
	10,000 (4540)	2SP-2SPCO	11'-6" (3505)	11'-9" (3581)	13'-8½" (4178)	8'-0" (2438)	11'-0" (3353)	6'-0" (1829)

Clear Overhead I Pit Depth J

	200 FPM (1.00 m/s)		350 FPM (1.78 m/s)		500 FPM (2.54 m/s)	
CAPACITY LBS. (kg)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)
6000 (2724)	5'-7" (1702)	15'-1" (4597)	5'-10" (1778)	15'-5"- (4699)	6'-8" (2083)	16'-6" (5029)
8000 (3632)	6'-0" (1829)	16'-1" (4902)	6'-2" (1880)	16'-6" (5029)	6'-11" (2108)	17'-6" (5335)
10,000 (4540)	5'-10" (1778)	16'-4" (4978)	5'-11" (1803)	16'-9" (5105)	–	–

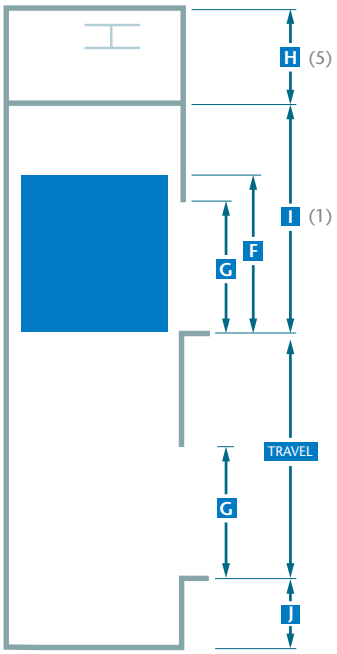
Notes

1. All dimensions are based on an 8'-0" (2438 mm) cab with a 7'-0" (2134 mm) door. Alternate car and door heights are available, but will affect dimension I.
2. If occupied space exists below the hoistway, consult your KONE Sales Professional.
3. Information is based upon structural machine room floor slabs. For machine beam applications, please consult your KONE Sales Professional.
4. Machine room height of 8'-0" (2438 mm) is required and is measured from the machine room floor surface to underside of the lowest obstruction above the machine H. Contact your local KONE Sales Professional for details.
5. The machine room is not centered on the hoistway, and requires an additional 7" (178 mm) in width. The additional 7" (178 mm) should be added to the counterweight side. Contact your local KONE Sales Professional for details.

Visit www.kone.us for the latest job-specific details, CAD drawings, specifications, electrical data, reaction loads and building access requirements.

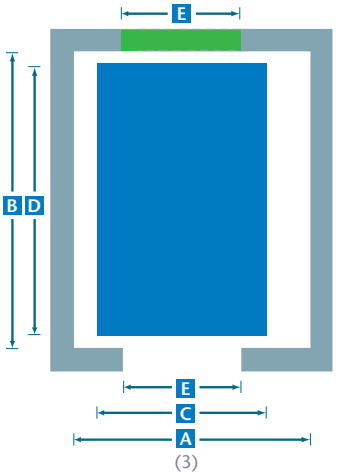
Contact your local KONE Sales Professional on how we may support your design process with BIM Models.

Section View



(2)

Plan Views



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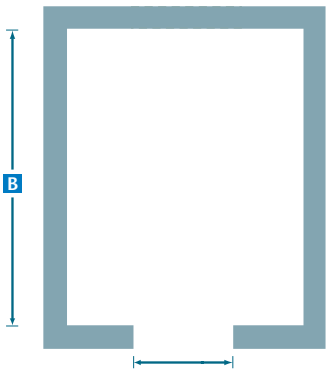


(6)
Machine Room

KONE Medical Facilities

Patient – Service

TYPE
Machine Room-Less

MAX TRAVEL
300 ft. (91.4 m)

MAX LANDINGS
36

SPEED
200, 350, 500 fpm
(1.00, 1.78, 2.54 m/s)

CAR HEIGHT F
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

ENTRANCE HEIGHT G
7, 8 or 9 ft.
(2134, 2438 or 2743 mm)

Patient – Service A A SEISMIC B B SEISMIC C D E

	CAPACITY LBS. (kg)	OPENING TYPE (mm)	HOISTWAY WIDTH (mm)	HOISTWAY WIDTH (mm)	HOISTWAY DEPTH (mm)	HOISTWAY DEPTH (mm)	INTERIOR WIDTH (mm)	INTERIOR DEPTH (mm)	DOOR WIDTH (mm)
Front Opening	4000 (1814)	2SP	8'-5" (2565)	8'-9" (2667)	9'-5" (2870)	9"-8" (2108)	5'-8½" (1740)	7'-6" (2286)	4'-0" (1219)
	4500 (2041)	2SP	8'-5" (2565)	8'-9" (2667)	9'-11" (3023)	10'-2" (3099)	5'-8½" (1740)	8'-0" (2438)	4'-0" (1219)
	5000 (2268)	2SP	8'-5" (2565)	8'-9" (2667)	10'-2" (3099)	10'-5" (3175)	5'-8½" (1740)	8'-7¾" (2642)	4'-6" (1372)*
	5000 AIA (2268)	2SP	8'-5" (2565)	8'-9" (2667)	10'-7¾" (3245)	10'-10¾" (3321)	5'-8½" (1740)	9'-0" (2743)	4'-6" (1372)*
Front & Reverse Opening	4000 (1814)	2SP	8'-5" (2565)	8'-9" (2667)	10'-1" (3073)	10'-1" (3073)	5'-8½" (1740)	7'-6½" (2311)	4'-0" (1219)
	4500 (2041)	2SP	8'-5" (2565)	8'-9" (2667)	10'-7" (3226)	10'-7" (3226)	5'-8½" (1740)	8'-0½" (2464)	4'-0" (1219)
	5000 (2268)	2SP	8'-5" (2565)	8'-9" (2667)	11'-2¾" (3423)	11'-2¾" (3423)	5'-8½" (1740)	8'-8¼" (2667)	4'-6" (1372)*
	5000 AIA (2268)	2SP	8'-5" (2565)	8'-9" (2667)	11'-6¾" (3524)	11'-6¾" (3524)	5'-8" (1727)	9'-0" (2743)	4'-6" (1372)*

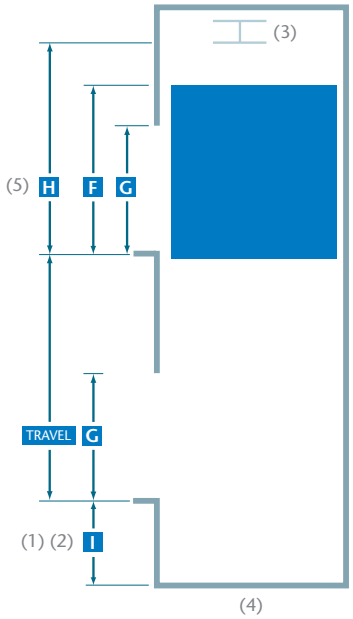
*4'-0" (1219) door width also available

Clear Overhead H Pit Depth I

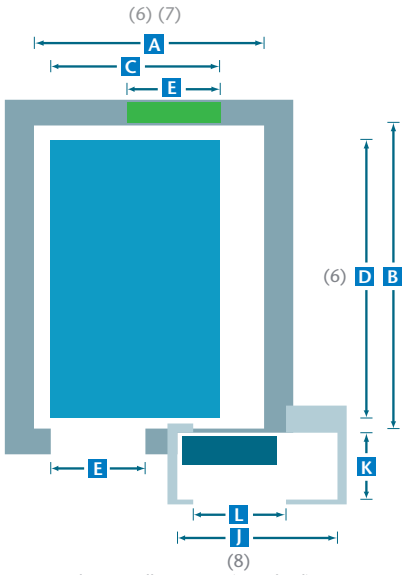
	200 FPM (1.00 m/s)		350 FPM (1.78 m/s)		500 FPM (2.54 m/s)	
CAPACITY LBS. (kg)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)
4000 (1814)	5'-8" (1727)	13'-7" (4141)	5'-8" (1727)	14'-11" (4547)	7'-3" (2210)	15'-8" (4775)
4500 (2041)	5'-8" (1727)	14'-9" (4496)	5'-11" (1803)	15'-3" (4648)	7'-6" (2286)	16'-0" (4877)
5000 and 5000 AIA (2268)	5'-11" (1803)	15'-2" (4623)	5'-11" (1803)	15'-11" (4851)	–	–

	CAPACITY LBS (kg)	CONTROLLER SPACE	J WIDTH (mm)	K DEPTH (mm)	L DOOR WIDTH (mm)
Control Space	4000 to 5000 AIA (1814-2268)	integral or remote cabinet	4'-4" (1321)	1'-8" (508)	4'-0" (1219)
	4000 to 5000 AIA (1814-2268)	adjacent or remote room	5'-0" (1524)	dimension (B)	3'-0" (914)

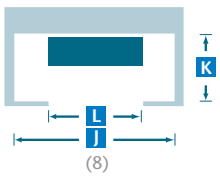
Section View



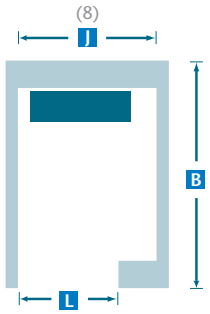
Plan View



Integral Controller Space (standard)



Remote Control Closet (option 1)



Adjacent or Remote Control Room (option 2)

Notes

1. Smaller Pit and Overhead dimensions may be available per specific applications. Contact your KONE Sales Professional for further information.
2. Buffer service platforms are required when pit depth exceeds 8'-6" (2591 mm).
3. A hoist beam(s) (by KONE) is (are) required for installation (by others). Dimension H reflects clear under hoist beam(s).
4. If occupied space exists below the hoistway, consult your KONE Sales Professional.
5. All dimensions are based on an 8'-0" (2438 mm) cab with a 7'-0" (2134 mm) door. Alternate car and door heights are available, but will affect dimension H.
6. If an EBD (Emergency Battery Device) is required, please contact your KONE Sales Professional for further detail regarding dimensions J and L.
7. Contact your local KONE Sales Professional regarding local code variations when utilizing the integral and remote closet options.

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KONE Medical Facilities

Freight

TYPE
Machine Room-Less

MAX TRAVEL
75 ft. (23 m)

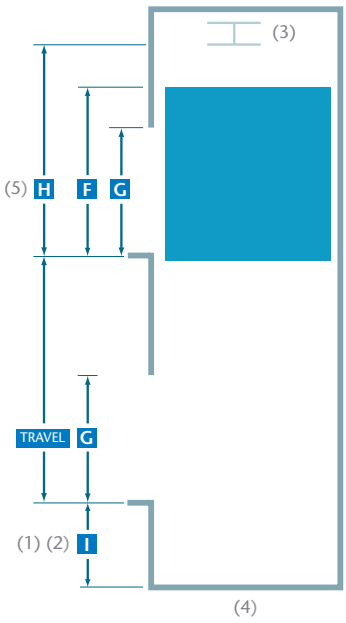
MAX LANDINGS
12

SPEED
100, 150 fpm
(.50, .76 m/s)

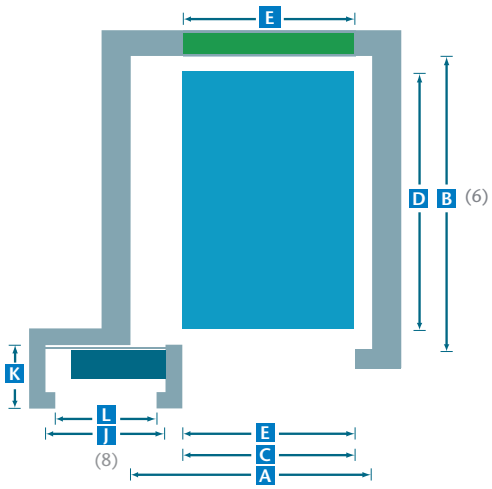
CAR HEIGHT F
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

ENTRANCE HEIGHT G
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

Section View



Plan View



Integral Controller Space (standard)

Freight			A	B	C	D	E
	CAPACITY LBS. (kg)	OPENING TYPE	HOISTWAY WIDTH (mm)	HOISTWAY DEPTH (mm)	INTERIOR WIDTH (mm)	INTERIOR DEPTH (mm)	DOOR WIDTH (mm)
Front Opening	6000 (2724)	Vertical, Bi-Parting	12'-0" (3658)	10'-10" (3302)	8'-0" (2438)	9'-5½" (2883)	8'-0" (2438)
	8000 (3632)	Vertical, Bi-Parting	12'-0" (3658)	10'-10" (3302)	8'-0" (2438)	9'-5½" (2883)	8'-0" (2438)
	10,000 (4540)	Vertical, Bi-Parting	12'-0" (3658)	12'-8" (3861)	8'-0" (2438)	11'-5½" (3492)	8'-0" (2438)
Front & Reverse Opening	6000 (2724)	Vertical, Bi-Parting	12'-0" (3658)	10'-10" (3302)	8'-0" (2438)	9'-5½" (2883)	8'-0" (2438)
	8000 (3632)	Vertical, Bi-Parting	12'-0" (3658)	10'-10" (3302)	8'-0" (2438)	9'-5½" (2883)	8'-0" (2438)
	10,000 (4540)	Vertical, Bi-Parting	12'-0" (3658)	12'-10" (3912)	8'-0" (2438)	11'-5½" (3492)	8'-0" (2438)

Clear Overhead H Pit Depth I				
	100 FPM (.51 m/s)		150 FPM (.76 m/s)	
CAPACITY LBS. (kg)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)
6000 (2724)	9'-8" (2946)	14'-2" (4318)	9'-8" (2946)	14'-2" (4318)
8000 (3632)	10'-2" (3099)	14'-2" (4318)	10'-2" (3099)	14'-2" (4318)
10,000 (4540)	10'-2" (3099)	14'-2" (4318)	10'-2" (3099)	14'-2" (4318)

			J	K	L
	CAPACITY LBS. (kg)	CONTROLLER SPACE	WIDTH (mm)	DEPTH (mm)	DOOR WIDTH (mm)
Control Space	6000-10,000 (2724-4540)	integral or remote cabinet	4'-2" (1270)	1'-8" (508)	3'-6" (1067)
	6000-10,000 (2724-4540)	adjacent or remote room	5'-0" (1524)	dimension (B)	3'-0" (914)

Notes

1. Shallower Pit Depths may be available per specific applications. Contact your KONE Sales Professional for further information.
2. Buffer service platforms are required when pit depth exceeds 8'-6" (2591 mm).
3. A hoist beam(s) (by KONE) is (are) required for installation (by others). Dimension H reflects clear under hoist beam(s).
4. If occupied space exists below the hoistway, consult your KONE Sales Professional.
5. All dimensions are based on an 8'-0" (2438 mm) cab with a 8'-0" (2438 mm) door. Alternate car and door heights are available, but will affect dimension H.
6. All dimensions are based upon regular type vertical bi-parting doors. When a floor height is less than the (door height x 1.5) + 6" (152 mm) then a pass type vertical bi-parting door is required. When pass type doors are required, add 1¾" (45 mm) to the hoistway depth for front opening and 3½" (89 mm) for front and reverse opening configurations.
7. All dimensions are based upon freight elevator loading classification A. Contact your KONE Sales Professional for further information regarding A17.1 or B44 freight elevator loading classifications (Classes A, B, C-1, C-2, C-3).
8. If an EBD (Emergency Battery Device) is required, please contact your KONE Sales Professional for further detail regarding dimensions J and L.
9. Contact your local KONE Sales Professional regarding local code variations when utilizing the integral and remote closet options.

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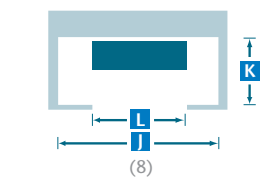
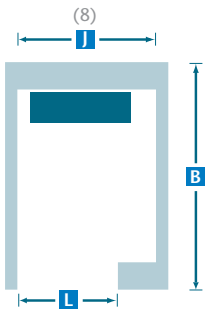
Contact your local KONE Sales Professional on how we may support your design process with BIM Models.



Remote Control Closet (option 1)



Adjacent or Remote Control Room (option 2)

KONE Medical Facilities

Visitor/Passenger

TYPE
Machine Room-Less

MAX TRAVEL[9]
300 ft. (91.4 m)

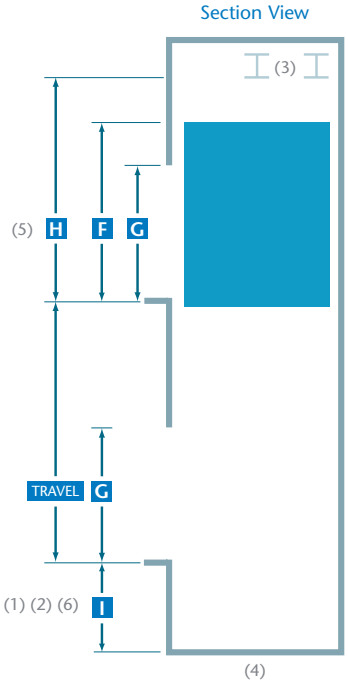
MAX LANDINGS
36

SPEED
200, 350, 500 fpm
(1.00, 1.78, 2.54 m/s)

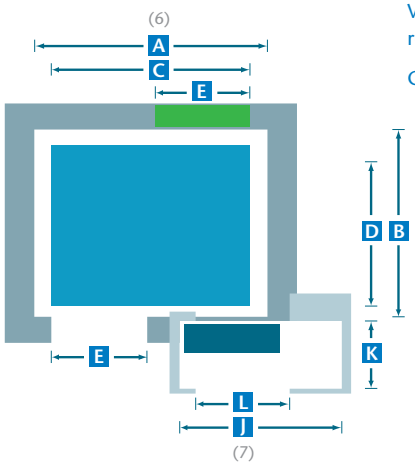
CAR HEIGHT F
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

ENTRANCE HEIGHT G
7, 8 or 9 ft.
(2134, 2438 or 2743 mm)

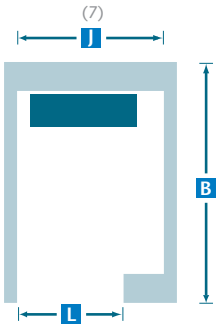
Section View



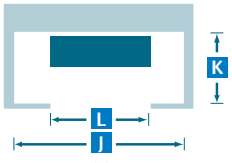
Plan View



Integral Controller Space (standard)



Adjacent or Remote Control Room (option 2)



Remote Control Closet (option 1)

Visitor/Passenger A A SEISMIC B C D E

	CAPACITY LBS. (kg)	OPENING TYPE (mm)	HOISTWAY WIDTH (mm)	HOISTWAY WIDTH (mm)	HOISTWAY DEPTH (mm)	INTERIOR WIDTH (mm)	INTERIOR DEPTH (mm)	DOOR WIDTH (mm)
Front Opening	2000 (907)	SSP	7'-4" (2235)	7'-8" (2337)	6'-8" (2032)	5'-8½" (1740)	4'-3¼" (1302)	3'-0" (914)
	2500 (1134)	SSP-CO	8'-4" (2540)	8'-8" (2642)	6'-8" (2032)	6'-8½" (2045)	4'-3¼" (1302)	3'-6" (1067)
	3000 (1361)	SSP-CO	8'-4" (2540)	8'-8" (2642)	7'-2" (2184)	6'-8½" (2045)	4'-9¼" (1454)	3'-6" (1067)
	3500 (1588)	SSP-CO	8'-4" (2540)	8'-8" (2642)	7'-10" (2388)	6'-8½" (2045)	5'-5¼" (1657)	3'-6" (1067)
	4000 (1814)	CO	9'-4" (2845)	9'-8" (2946)	7'-10" (2388)	7'-8½" (2350)	5'-5¼" (1657)	4'-0" (1219)
Front & Reverse Opening	2500 (1134)	SSP-CO	9'-5" (2870)	9'-9" (2972)	7'-1" (2159)	6'-8½" (2045)	4'-3¾" (1314)	3'-6" (1067)
	3000 (1361)	SSP-CO	9'-5" (2870)	9'-9" (2972)	7'-6" (2286)	6'-8½" (2045)	4'-9¾" (1467)	3'-6" (1067)
	3500 (1588)	SSP-CO	9'-5" (2870)	9'-9" (2972)	7'-9½" (2375)	6'-8½" (2045)	5'-5¾" (1670)	3'-6" (1067)
	4000 (1814)	CO	10'-5" (3175)	10'-9" (3277)	7'-9½" (2375)	7'-8½" (2350)	5'-5¾" (1670)	4'-0" (1219)

Clear Overhead H **Pit Depth** I

	200 FPM (1.00 m/s)			350 FPM (1.78 m/s)			500 FPM (2.54 m/s)		
	I	H	H SEISMIC	I	H	H SEISMIC	I	H	H SEISMIC
CAPACITY LBS. (kg)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	CLEAR OVERHEAD (mm)	PIT DEPTH (mm)	CLEAR OVERHEAD (mm)	CLEAR OVERHEAD (mm)
2000 (907)	5'-4" (1626)	15'-6" (4724)	16'-11" (5156)	5'-7" (1702)	16'-11" (5156)	16'-11" (5156)	5'-7" (1702)	15'-9" (4801)	16'-11" (5156)
2500 (1134)	5'-5" (1651)	15'-0" (4572)	16'-11" (5156)	5'-5" (1626)	16'-7" (5055)	16'-11" (5156)	5'-5" (1651)	15'-2" (4623)	16'-11" (5156)
3000 (1361)	5'-5" (1651)	15'-2" (4623)	16'-11" (5156)	5'-5" (1626)	16'-10" (5131)	16'-11" (5156)	5'-5" (1651)	15'-5" (4699)	16'-11" (5156)
3500 (1588)	5'-5" (1651)	14'-10" (4521)	16'-11" (5156)	5'-5" (1626)	16'-4" (4978)	16'-11" (5156)	7'-3" (2210)	16'-4" (4978)	16'-11" (5156)
4000 (1814)	5'-8" (1727)	15'-1" (4597)	16'-11" (5156)	5'-8" (1727)	16'-7" (5055)	16'-11" (5156)	7'-6" (2286)	16'-11" (5156)	16'-11" (5156)

			J	K	L
	CAPACITY LBS. (kg)	CONTROLLER SPACE	WIDTH (mm)	DEPTH (mm)	DOOR WIDTH (mm)
Control Space	2000 to 4000 (907-1814)	integral or remote cabinet	4'-4" (1321)	1'-8" (508)	4'-0" (1219)
	2000 to 4000 (907-1814)	adjacent or remote room	5'-0" (1524)	dimension (B)	3'-0" (914)

Notes

1. Smaller Pit and Overhead dimensions may be available per specific applications. Contact your KONE Sales Professional for further information.
2. Buffer service platforms are required when pit depth exceeds 8'-6" (2591 mm).
3. A hoist beam(s) (by KONE) is (are) required for installation (by others). Dimension H reflects clear under hoist beam(s).
4. If occupied space exists below the hoistway, consult your KONE Sales Professional.
5. All dimensions are based on an 8'-0" (2438 mm) cab with a 7'-0" (2134 mm) door. Alternate car and door heights are available, but will affect dimension H.
6. For front-only passenger car in seismic applications (zone 2 or greater) add 12" (305 mm) to the pit depth dimensions for speeds > 200 fpm (1 m/s).
7. Add 8" (203 mm) in non-seismic and 12" (305 mm) in seismic zones to clear overhead dimension H for front-only passenger car if cab features glass back wall.
8. If an EBD (Emergency Battery Device) is required, please contact your KONE Sales Professional for further detail regarding dimensions J and L.
9. Contact your local KONE Sales Professional regarding local code variations when utilizing the integral and remote closet options.

Visit www.kone.us for the latest job-specific details, CAD drawings, specifications, electrical data, reaction loads and building access requirements.

Contact your local KONE Sales Professional on how we may support your design process with BIM Models.

KONE TravelMaster™ 110

KONE TravelMaster 110 escalators are available in three step widths and glass or solid balustrades with many other available options and finishes. The robust design, coupled with excellence in manufacturing and service, keep KONE at the top of the list of preferred suppliers of escalators for airports and lightly used railways or metro stations, public access, office or retail applications.

Notes

(1) Details represent standard KONE escalator configurations. Please consult your Sales Professional to review all possible deviations.

(2) Please visit www.kone.us for the latest job-specific details, electrical data, reaction loads and building access requirements.

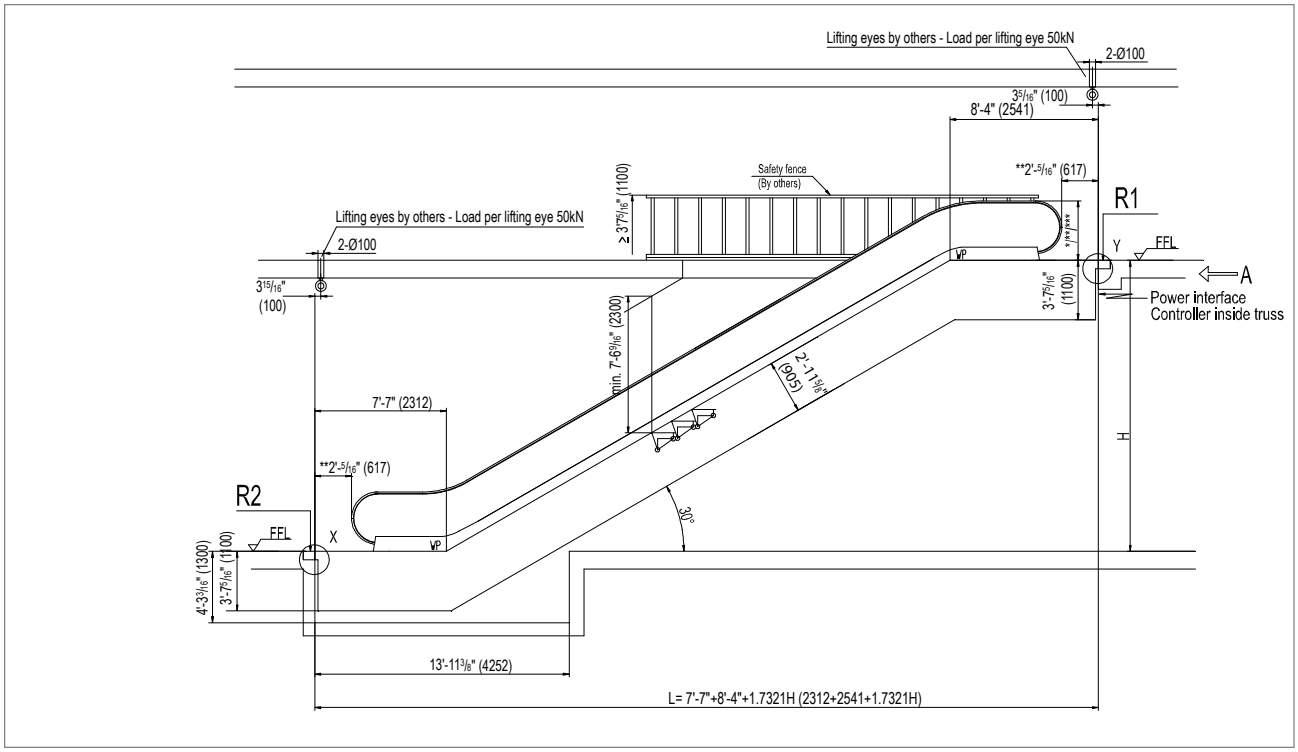
Overview of technical specifications

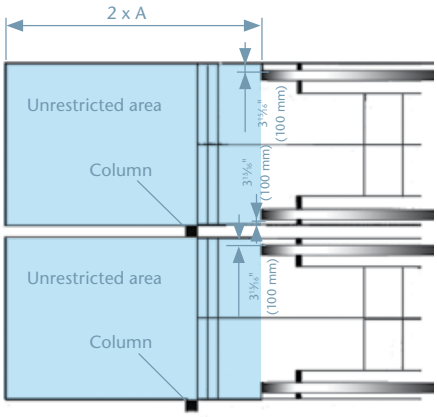
KONE TravelMaster 110 basic data	
Inclination	30°
Horizontal steps	2/2 or 3/3
Transition radii (top/bottom)	1.0/1.0 and 1.5/1.0
Maximum rise	31'-2" (9.5 m)
Operational environment	Indoor, semi-outdoor, full-outdoor
Step width	24", 32" and 40" (600 mm, 800 mm, 1000 mm)
Balustrade type	■ ⅜" (10 mm) or ½" (12 mm) tempered glass with slim handrail profile ■ Stainless steel sandwich panel balustrade ■ Balustrade extension of 1'-3" (400 mm) or 2'-3⁹⁄₁₆" (700 mm)
Balustrade height	3'-3⅜" (1000 mm)
Speed	78 f/m (0.4 m/s) with inverter, 100 f/m (0.5 m/s)
Step chains	Inside roller chains
Duty cycle	12-16 hours/day
Typical service life	100,000 hour*

* Actual service life is directly related to operation hours and load profile. Contact your KONE representative for more information.

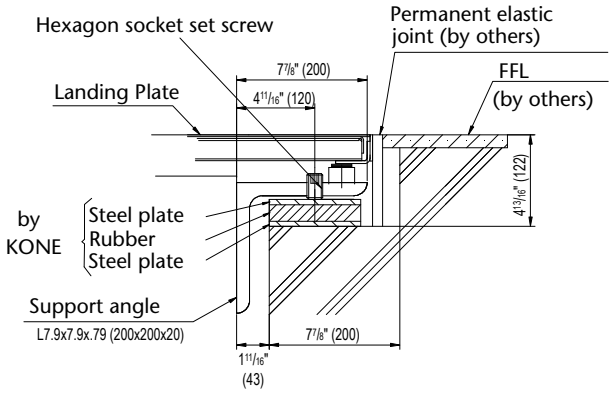
Architectural planning data – Example

30° inclination / 1.0 transition radii / 2 horizontal steps at each landing / vertical rise up to 31'-2" (9.5 m)/ 3'-3⅜" (1000 mm) step width Code: ASME A17.1





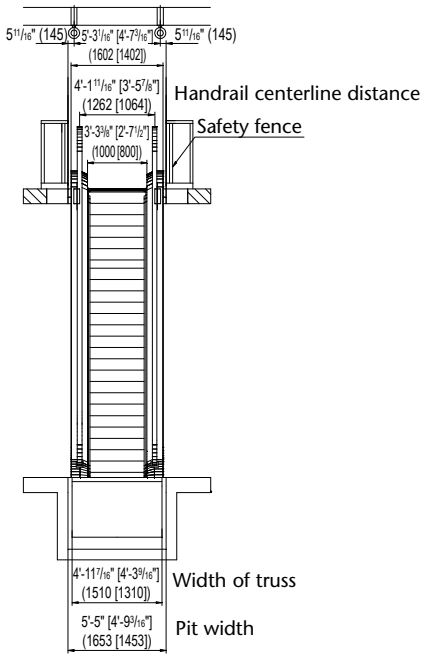
A = Distance between handrail centerlines.



Reaction force (kN)				
	2'-7½" (800 mm)		3'-3⅜" (1000 mm)	
2 steps	R1 = 4.8L/1000 + 10.4	R2 = 4.8L/1000 + 2.5	R1 = 5.5L/1000 + 11	R2 = 5.5L/1000 + 2.6

[1] Other local codes dimensional requirements are available upon request, please contact your local KONE Sales representative for more information.

[2] Upper end pit depth: 4'-3⅜" (1300 mm) for rises over 19'-8⅜" (6 m).



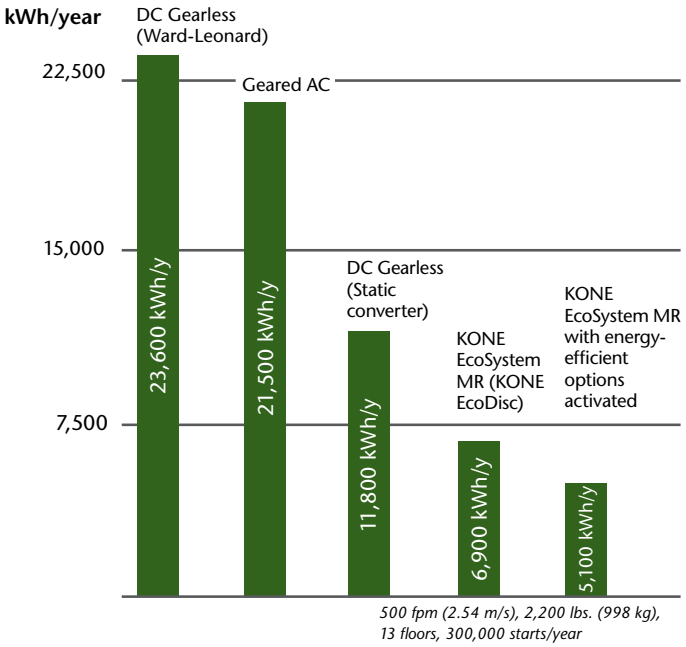
- All dimensions are in inches (millimeters)
- Maximum vertical rise: H = 31'-2" (9500 mm)
- Upper truss extension maximum 2'-3 9/16" (700 mm)
- Lower truss extension maximum 2'-3 9/16" (700 mm)
- Additional cladding material maximum 10 lbs./ft² (49 kg/m²)
- *** = Balustrade height 3'-3⅜" (1000 mm)
- For escalator with step width of 1'-11⅝" (600 mm) please contact your KONE sales office

Note:
If you would like to obtain the exact dimensions for your specific project, we recommend you use the Escalator Design Tools, which can be found on www.kone.us.

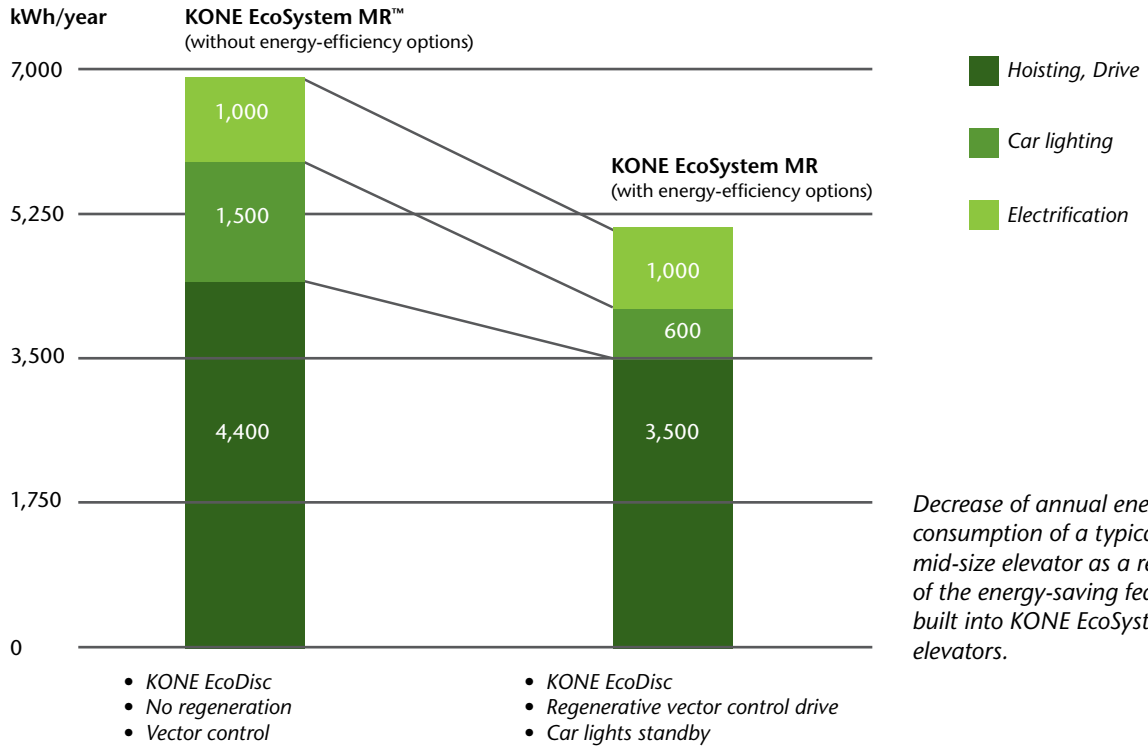
KONE Eco-efficient™ elevators for medical facilities

The cost of owning an elevator is made up of three components: the purchase price, the cost of maintenance and the running costs. Thanks to their dependability and energy-efficiency, KONE elevators significantly reduce the total cost of ownership.

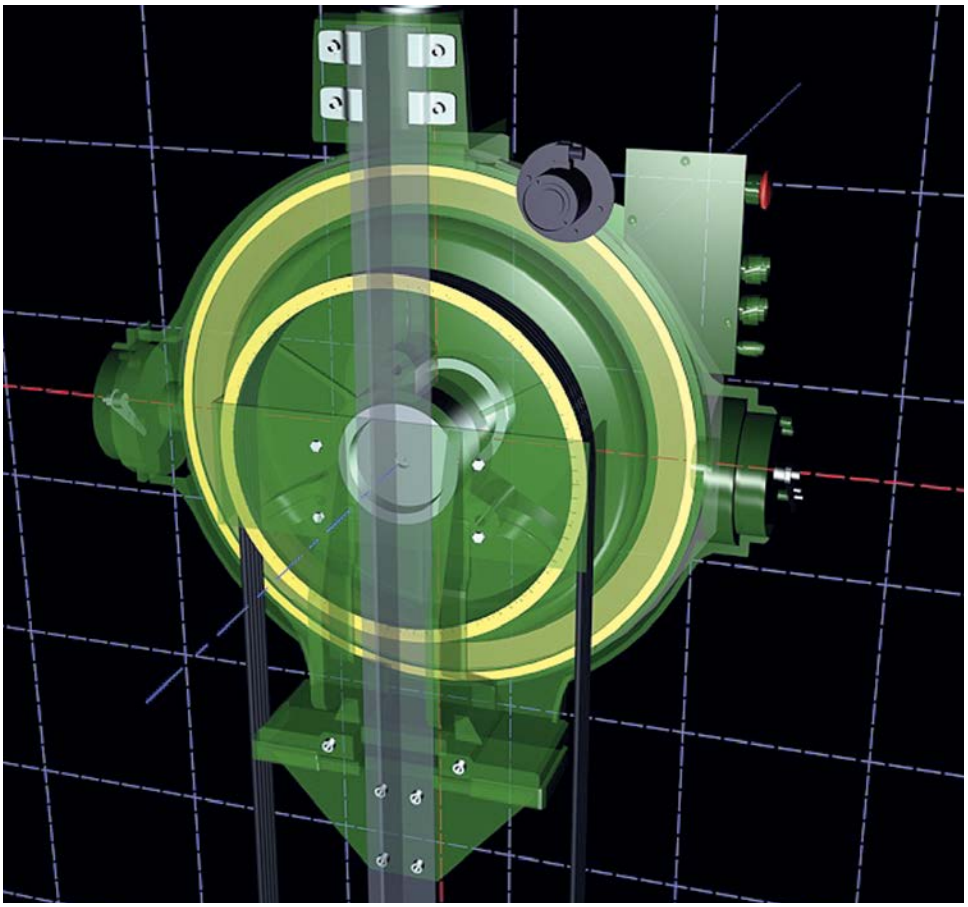
KONE has constantly been the forerunner in developing the most energy-efficient elevator hoisting technology in the industry, as can be seen in the chart on the right. The annual energy consumption of a typical mid-size elevator has been reduced from over 20,000 kWh to one third. The latest KONE energy-saving options can squeeze this consumption even further, to close to 5,000 kWh/year.



The energy consumption of an Eco-efficient KONE elevator



Decrease of annual energy consumption of a typical mid-size elevator as a result of the energy-saving features built into KONE EcoSystem MR elevators.



Efficient hoisting and energy regeneration

The very high mechanical and electrical efficiency of the KONE EcoDisc saves a considerable amount of energy compared with other solutions: it consumes 50% less energy than a geared two-speed traction elevator and 70% less than a hydraulic elevator. It also recovers braking energy which can be converted into electricity for use elsewhere in the hospital. This regenerative feature alone can save 20-30% of the elevator's annual energy consumption.

Energy-efficient lighting and standby solutions

A host of other options such as energy-efficient car lighting and solutions that switch car lights, fan and signalization to standby mode when the elevator is not in use, further reduce the energy consumption of the elevator. LED lights, for example, consume 80% less energy than halogen lights, and last ten times longer.

Dedicated enhancements for medical segment

KONE offers a wide selection of options and accessories to help you monitor, manage and maximize the performance of your facility.

The OPC interface can also be used to deliver information to in-car flat screens. This helps to deliver information to visitors and staff using the elevators.

Easy integration with other systems

KONE elevators and elevator management systems can be integrated with other building automation systems through Open Connectivity Standards (OPC). In a hospital this offers significant benefits, as the different logistical and information management tasks can be seamlessly integrated and optimized between different suppliers and brands without costly customized developments.

Photo by Swisslog AG

AGVs are automatic guided vehicles that navigate unmanned throughout the building. When needed, the AGV calls the elevator via WLAN and OPC interface and changes it to "freight service mode." The elevator serves the current passengers and goes to the floor where the AGV is waiting. The AGV then enters and requests a floor. Upon arrival, the AGV drives out and the elevator returns to normal mode.

Integrating horizontal and vertical logistics

Thanks to the OPC standards used in KONE management systems, KONE has integrated elevators with AGV (Automated Guided Vehicles) systems in many hospitals. This offers many logistical advantages, since AGVs are not limited to horizontal movement only but can also travel from floor to floor.

The AGV units automatically navigate in the hospital, delivering food, laundry and medical supplies based on commands from the logistics system and a building map in the AGV's memory. AGVs do not collide into each other or with people as they can "see." AGV units can also "speak" and ask people to please step out of the way.

KONE E-Link elevator monitoring and management system

KONE E-Link provides an accurate view of the transportation status, demand, performance and availability of elevators and escalators in the building. This helps you ensure that the equipment delivers the best possible performance at all times. KONE E-Link has an open interface to allow integration with other facility management systems.

- Real-time view of equipment status locally and remotely. Large building complexes or geographically remote buildings can be monitored and managed from a single location.
- Traffic history playback for event history, security and possible legal purposes
- Faster reaction to malfunctions, possible misuse and troubleshooting
- Faster rescue of entrapped passengers
- Local and remote control of equipment, scheduled commands like lockings and change of operation mode
- Easy integration with other facility management systems in the building

KONE Polaris Destination Control

The KONE Polaris Destination Control system offers two benefits for medical facilities: better traffic handling and improved passenger guidance.

- Users in the lobby select their destination floor before entering the elevator; when the elevator arrives, the destination floor is already registered
- The Destination Operating Panel can work as an interactive directory showing the different wards and departments
- Conventional landing call stations and indicators can be used on other landings

The Destination Operating Panel can work as a directory showing the different wards. When the user enters the lobby, he or she selects the destination on the Destination Operating Panel. The DOP indicates which elevator will be available. When the elevator arrives, it automatically takes the visitor to the desired floor.

Lower cost of ownership for the lifetime of the facility

Major Projects is KONE's global team of experts, with dedicated solutions available to help customers through every stage of the building process. KONE experts have extensive experience with complex hospital projects, from early design stages throughout the building life cycle. When designing the building, thorough people flow analysis ensures that you have the right equipment for your requirements. Comprehensive project management services support the construction phase of the project. Preventive maintenance saves costs throughout the lifetime of the equipment, and flexible modernization solutions enable you to upgrade elevators and escalators as needed.

Design

We supply more than elevators and escalators. We provide a complete KONE People Flow® solution, designed to serve you for the lifetime of the building. So our work begins a long time before the elevator shafts go up on the construction site. We can provide thorough analysis and simulations of the flow of patients, staff, visitors and supplies in the hospital, in order to match the capabilities of the equipment with your requirements.

Visual design of elevators in hospitals is important, not only from an aesthetic point of view, but also from functional, durability and hygienics point of view. KONE works with your design team to ensure that the people flow solution meets the requirements of the medical facility and is integrated with the architect's vision. You can choose from our wide range of interior options or you can create a fully custom-designed solution.

Modernize

Modernizing your elevators, escalators and doors is an investment that can pay for itself. For patients and visitors, KONE modernization solutions increase safety, convenience and accessibility. For facility managers, they minimize disruption and maximize availability. And for hospital administration, they improve energy efficiency, reduce operating costs, and make elevator life-cycle management and budgeting more predictable.

With KONE Care for Life™ services, we help you determine when and how to modernize, with a thorough assessment of the safety, accessibility, reliability, eco-efficiency and appearance of your elevators. Depending on the results of this analysis, KONE can recommend a solution ranging from small repairs to modular modernization to full replacement.

Build

KONE has been involved in many major hospital projects. Our experienced project management teams guarantee smooth coordination with all parties involved in the project. KONE can also provide solutions that speed up the construction process. KONE's construction time elevators enable fast and efficient vertical transportation of people and materials during the construction phase.

Once the equipment has been installed, our experts examine and evaluate its performance, ensuring that all requirements have been met.

Operate and Maintain

Elevators, escalators and doors in medical facilities must function without interruption around the clock. Our trained maintenance technicians serve all types of equipment, both from KONE and from other manufacturers.

KONE maintenance is based on preventive care, to solve problems before they can lead to downtime. With the KONE Remote Monitoring System™, we can keep an eye on the condition of your equipment from our KONE Customer Care Centers™. If the operation of the equipment deviates from normal, we dispatch a service team, with spare parts and knowledge of the problem. Often we can solve the problem before passengers have even noticed there was one.

KONE offers three maintenance solutions, KONE Care™ Standard, Plus and Premium, tailored to the different levels of requirements. You can further enhance the solution with additional services from the service portfolio.

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