

Dedicated to People Flow™



MANAGING THE FLOW OF PEOPLE AND GOODS IN MEDICAL BUILDINGS

KONE solutions for medical facilities

A full range of people and goods flow 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.



w solutions for



KONE has a long history of designing, implementing, maintaining and modernizing the people and goods flow 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 efficiency, with low total cost of ownership.

KONE solutions for medical facilities

1. Passenger elevators
2. Bed elevators
3. Service elevators
4. Helipad elevators
5. Escalators
6. Automatic building doors
7. Gates
8. Loading bays
9. Hermetic sealing doors
10. Automated guided vehicles integrated with elevators and building management systems
11. Destination control systems for elevator groups

The entire product portfolio – built for demanding medical applications

KONE supplies a full range of elevators, escalators and building doors to ensure that patients, staff, visitors and goods 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 powered by KONE EcoDisc® 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 and goods flow

- KONE Polaris™ destination control system to improve user guidance and boost traffic handling
- Centralized elevator and escalator monitoring, command and management, and exchange of data between systems, with KONE E-Link™
- Easy exchange of data and integration 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 trolleys
- Reliable permanent magnet based gearless KONE EcoDisc® hoisting units with excellent track record, more than 300 000 units in operation globally
- Meets the strictest requirements for electromagnetic compatibility: EN-12015 and EN-12016

Space-efficient construction

- KONE machine-room-less elevators save space, allowing more room for patient care and giving architectural freedom for design
- No need for a machine room on the roof, allowing flat roof structures. Helipad elevators can operate through the roof next to landing zone

Hygienic and visually pleasing

- Pleasing designs and colors, comforting for patients and staff
- Durable and easy-to-clean materials

Escalators

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

- Dedicated product range to match the anticipated traffic intensity
- Energy saving features like efficient drives, LED lighting and stand-by solutions
- Lubrication free chain is oil and odor free, easier to clean and maintain
- The 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

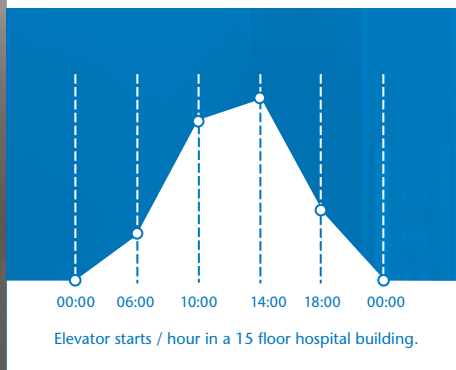
Doors

KONE provides a full range of door solutions. KONE also supplies solutions for the movement of goods into the hospital, such as loading bays and gates.

- Solutions to reduce the loss of warm or cool air, making building heating or cooling more energy efficient
- KONE hermetic sealing doors are used for protection against X-ray radiation, or when extreme hygiene or resistance to fire or noise is needed

Understanding the flow of people and goods in hospitals

In hospitals the elevators are in constant use from early morning to late evening, every day of the week. A sudden increase in elevator service may occur during lunchtime or visiting hours. These and even extreme conditions such as a possible evacuation of the building need to be analyzed and simulated during the planning phase.



Elevator solutions for all medical ap

Elevators are essential for ensuring the smooth flow of people and goods 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 the medical environment, our criteria are extreme reliability, safety and energy-efficiency, which lower the cost of ownership and the 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 bed elevators

KONE bed elevators are designed especially for hospital environments, offering the following 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
- **Emergency/priority/remote calls** – for immediate availability during emergency situations
- **Quiet, smooth operation** – to prevent disturbance to traveling patients and in rooms near the elevator shaft
- **Flush-mounted operating panels** to avoid collisions with medical equipment
- **Indirect, non-glare lighting** and clear indicators to improve visibility and provide guidance for users

KONE passenger elevators

KONE passenger elevators are designed to transport visitors and staff smoothly and energy-efficiently.

- **Space efficiency** – maximum car sizes with minimum shaft dimensions. Increases passengers' convenience while saving construction costs
- **Machine-room-less** – enables elevator to serve the top floor – or even the roof – without a machine room on the roof of the hospital
- **Design** – wide selection of design alternatives to match the buildings architecture
- **Wide duty range** – to satisfy the people flow requirements of any hospital



KONE service elevators

To move heavy loads, you need an elevator that is designed specifically for that purpose:

- **Fast and durable hoisting** to cope with rough treatment
- **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 elevator types and duty ranges for medical applications

	Nominal load		Travel (m)	Speed (m/s)
	(persons)	(kg)		
Bed elevators	17-53	1000-5000	up to 70	1.0-2.0
Service elevators	17-53	1000-5000	up to 23	0.6-1.0
Passenger elevators	8-17/21	630-1275/1600	40-80	1.0-3.5

For more detailed information about available car and shaft sizes, see separate planning information or contact your KONE sales representative.

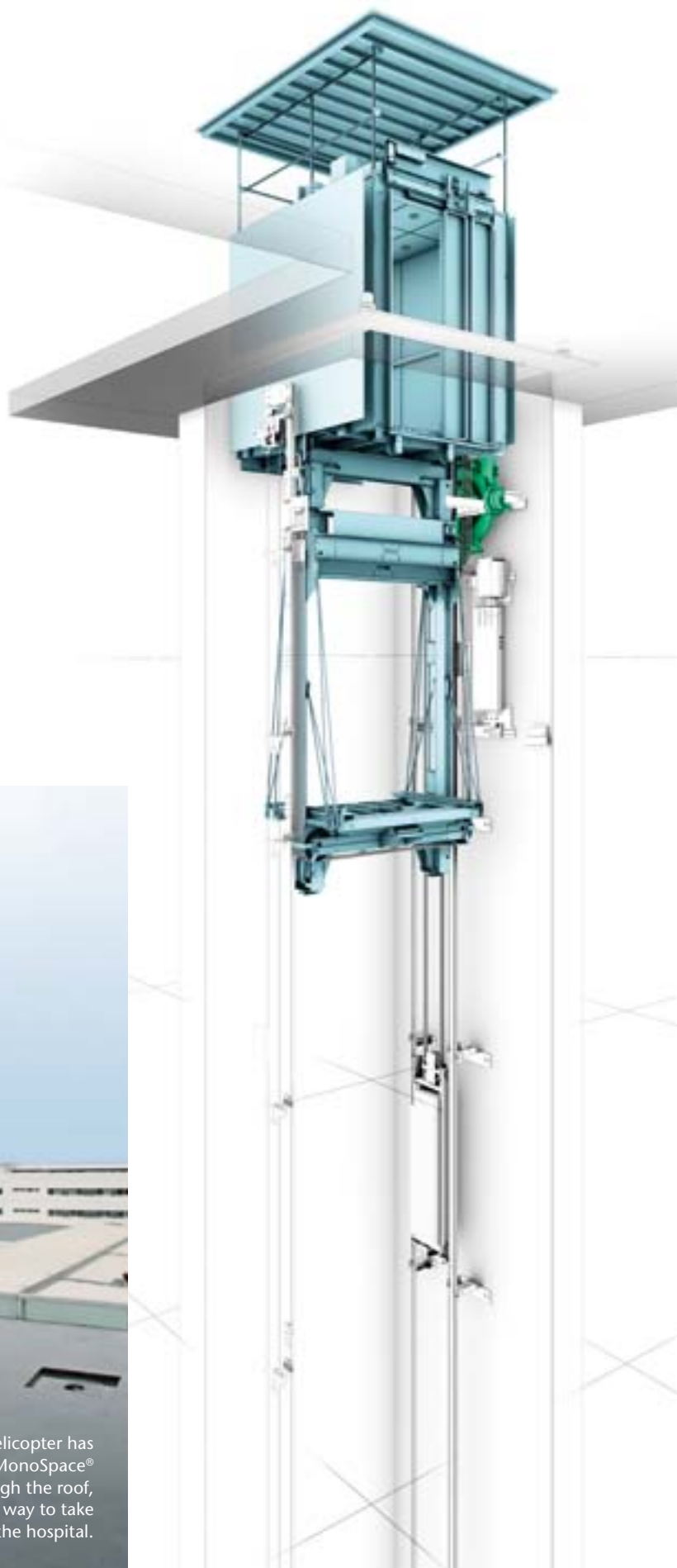
plications

KONE helipad elevators

In urban areas, often the best way to access the hospital in an emergency is by helicopter. Because of the safety areas around the helipad, the elevators to the roof have traditionally been located relatively far from landing spot, so valuable time is lost and the patient may be exposed to open air and rough weather. The KONE MonoSpace® elevator does not need a machine room on top of the shaft, so the elevator car can literally come through the hospital roof close to the helicopter as soon as it has landed. Several KONE helipad elevators are in operation in hospitals around the world.



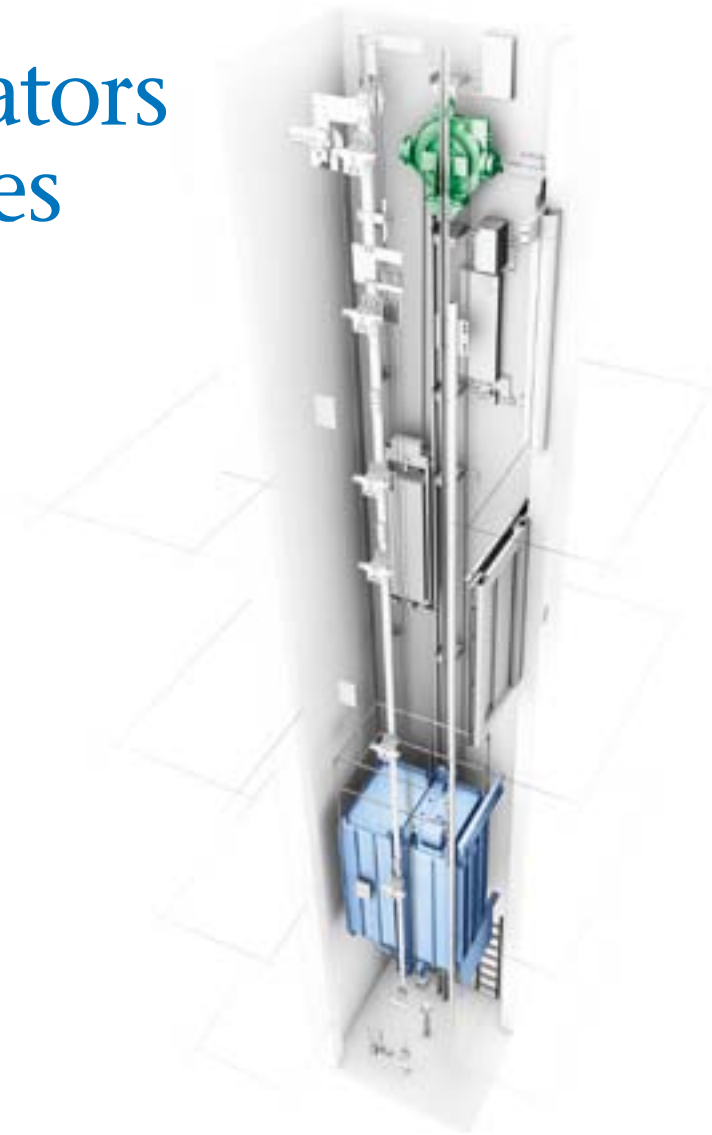
As soon as the helicopter has landed, the KONE MonoSpace® elevator rises through the roof, providing the fastest way to take passengers into the hospital.



Eco-efficient™ elevators for medical facilities

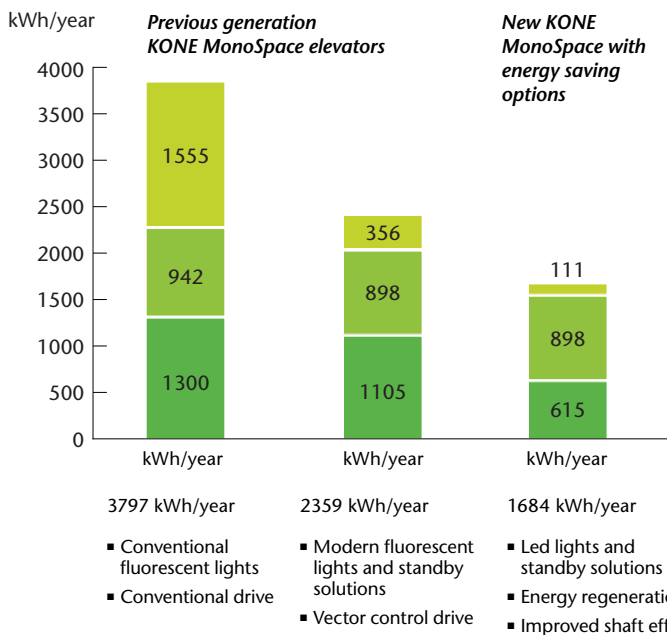
The cost of owning an elevator is made up of three components: the purchase price, the cost of maintenance, and the running costs. Thanks to their dependability and energy-efficiency, KONE elevators significantly reduce the total cost of ownership.

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 5000 kWh/year.

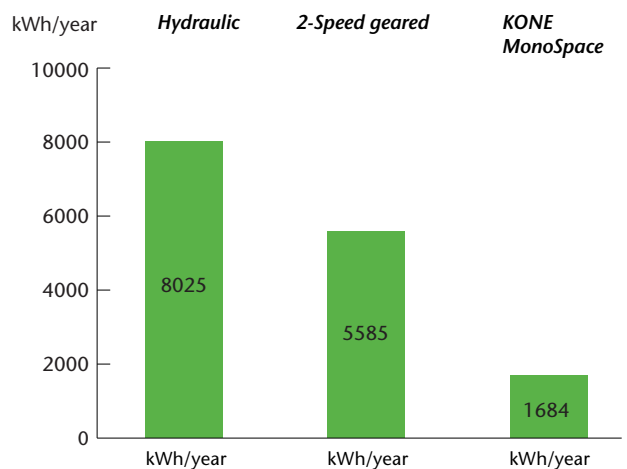


MonoSpace energy consumption

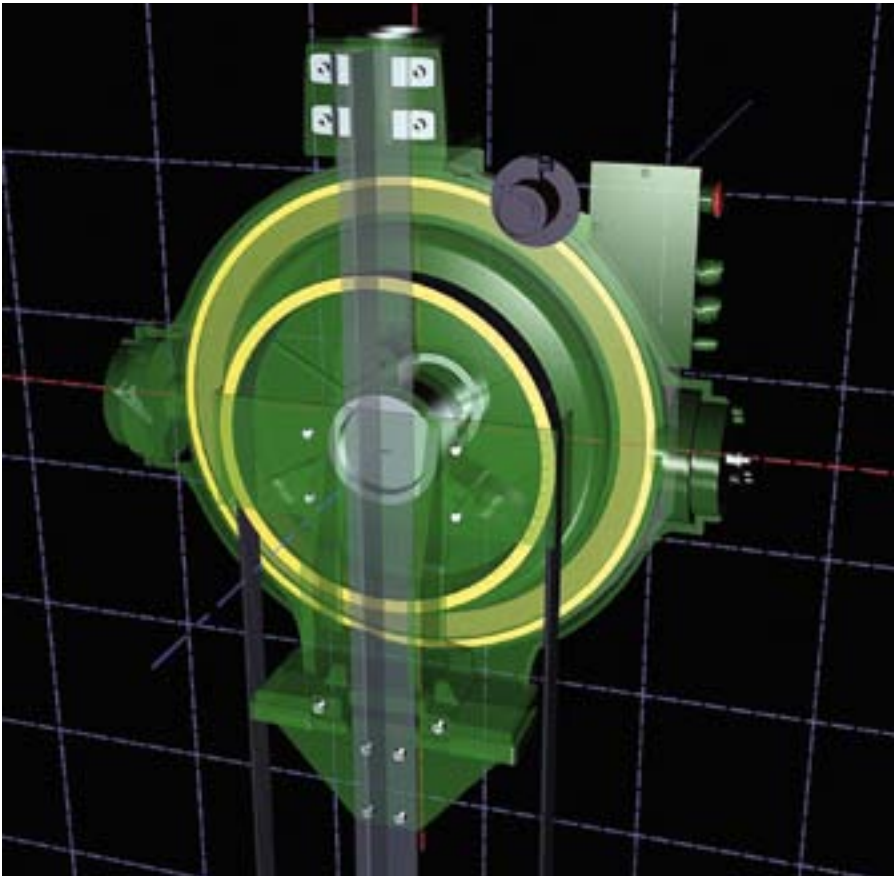
■ Car lighting ■ Electrification ■ Hoisting



Energy consumption compared to previous technologies



* The basis for the calculations is: an elevator speed of 1 m/s, a load of 1000 kg, 150,000 starts/year, 350 running hours, a travel height of 12 m and 5 floors.



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 stand-by solutions

A host of other options such as energy-efficient car lighting and solutions that switch car lights, fan and signalization to stand-by 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 the demanding medical segment

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



The OPC interface is used to deliver information on in-car flat screens. This helps to guide 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 using 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 through the hospital. When needed, the AGV calls the elevator via WLAN and OPC interface and changes the elevator 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

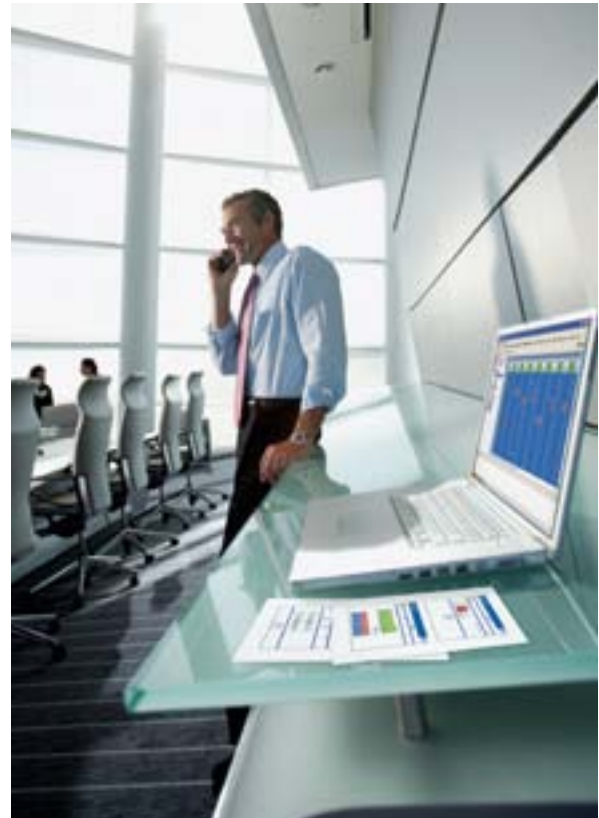
Thanks to the OPC standards used in KONE management systems, KONE has integrated elevators with AGV (Automated Guided Vehicles) systems in many hospitals. This offers many logistical advantages, since AGVs are not limited to horizontal movement only but can also travel from floor to floor.

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 possible 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.

KONE hermetic sealing sliding doors

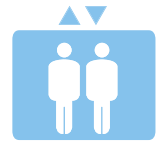
For conditioned rooms, KONE hermetic sealing sliding doors are the ideal solution, with low weight and very good noise reduction.

- Designed for use in operating theatres and other clean room environments
- Equipped with special rubber seals, rounded profiles and door panels covered on both sides with high pressure laminate
- Can reduce the noise level by as much as 34 dB
- Provide protection against fire and X-ray radiation





KONE passenger elevators



KONE passenger elevators are designed to transport visitors and staff smoothly and energy-efficiently.

- **Space efficiency** – maximum car sizes with minimum shaft dimensions. Increases passengers' convenience while saving construction costs
- **Machine-room-less** – enables elevator to serve the top floor, or even the roof, without a machine room on the hospital roof
- **Design** – wide selection of design alternatives to match the building's architecture
- **Selected surface materials** – visually pleasing, easy-to-clean surface materials, durable and smooth floor materials for smooth movement of beds and wheelchairs
- **Wide duty range** – to satisfy the people flow requirements of any hospital
- **Meets the requirements of EN81-70** – the code for improving the use of elevators for people with disabilities



KONE bed elevators

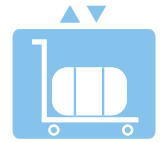


KONE bed elevators are designed especially for hospital environments, offering the following features:

- **Specialized car dimensions** – wide-opening doors and deep car sizes to accommodate the bed with accompanying staff and medical equipment
- **Smooth loading and unloading** – precise leveling for easy entry of wheelchairs, beds and patients
- **Emergency/priority/remote calls** – for immediate availability during emergency situations
- **Quiet, smooth operation** – to prevent disturbance to traveling patients and in rooms near the elevator shaft
- **Flush-mounted operating panels** – to avoid collisions with medical equipment
- **Indirect, non-glare lighting options** – to avoid the glare of light for patients lying in bed
- **Clear indicators** – to improve visibility and provide guidance for users



KONE service elevators



To move heavy loads, you need an elevator that is designed specifically for that purpose:

- **Fast and durable hoisting and car interior** – to cope with heavy duty treatment
- **A smooth ride** – to handle fragile loads
- **Accurate leveling** – for easy loading and unloading
- **Full-width doors** – for easy entry and maximum use of space in the car
- **Hygienic** – easy-to-clean materials



Visual options

Ceilings



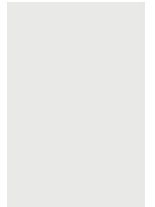
Type: LF1
Finishing: White painted
Light type: T5 fluorescent tubes



Type: LF51
Finishing: Silver brushed stainless steel (ST4)
Light type: T5 fluorescent tubes



Painted metal



White painted

Stainless steel



ST4
Silver brushed



Type: LF88
Finishing: Silver brushed stainless steel (ST4)
Light type: LED (round)



Type: LF94
Finishing: Silver brushed stainless steel (ST4)
Light type: T5 fluorescent tubes



Type: LF95
Finishing: Silver brushed stainless steel (ST4)
+ white painted center panel
Light type: T5 fluorescent tubes



Type: LF97/LF97M
Finishing: Silver brushed stainless steel (ST4)
Light type: LED (square)



Type: LF104
Finishing: Silver brushed stainless steel (ST4) + white painted center panel
Light type: T5 fluorescent tubes



Walls

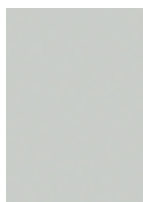


Stainless steel

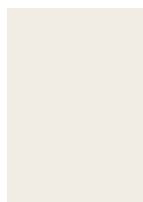


ST4
Silver brushed

Painted steel



PP1
Dolphin grey



PP10
Pure white



PP18
Light ivory

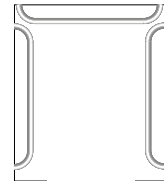
Handrails



HR24R
Flat stainless steel with curved ends



HR24R
(EN81-70)
Tube with rounded ends



HR54S
(EN81-70)
Tube with rounded ends



HR54S
Curved stainless steel



Buffer rails

Up to three buffer rails per wall



PR5
Beech Oak

Floors

Composite Stone

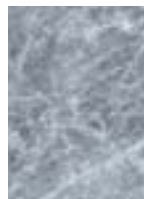


M4
Natural white

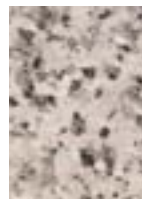


M5
Pebble grey

PVC



D-7
Light blue



D-20
Light granite



D-21
Copper beige



D-22
Silver grey

Rubber



RC7
Black

Zinc-coated steel



FE-1
Tear plate 3 mm

Signalization for medical elevators

KDS50 signalization Car operating panel (COP)



Faceplate finishing:

- Brushed stainless steel
- Black electroplated stainless iron

Display:

- 7-segment or dot matrix

Partial height COP-1
Black electroplated stainless iron faceplate

Partial height COP-2
Brushed stainless steel faceplate

Handicap operating panel (Optional)

Black plastic faceplate Stainless steel faceplate

KDS300 signalization Car operating panel (COP)



Dot matrix display

Other colors:
White
Red
Blue
Green

Yellow

Full graphic display

Available for swing COP

Segmented LCD display

White with blue or black background

Handicap operating panel (Optional)

Black plastic faceplate Stainless steel faceplate

Landing devices

Hall indicator (HI)



Hall lantern (HL)



Landing call stations (LCS)



Landing call station with indicator (LCI)



Landing devices

Hall indicator (HI)



Hall lantern (HL)



Landing call stations (LCS)



Landing call station with indicator (LCI)



KONE Design signalization

KDS D20

Partial height Car operating panel (COP)



Snow White

Solid colors



Jet Black



Wash Grey



Carp Red

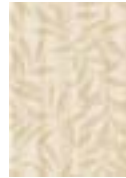


Satin Blue

Graphic pattern



Spring Shadow



Autumn Window



Cool Dunes



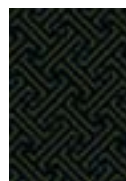
Silk Shine



Fortune Ripple



Imperial Gold



Luck Mosaic

KDS D40

Full height Car operating panel (COP)



Jet Black

Same color options as in Partial height signalization

Landing devices

Hall indicator (HI)



Hall lantern (HL)



Snow White



Wash Grey



Carp Red



Satin Blue



Jet Black

A selection of 5 solid colors is available for landing devices.

Landing call station (LCS)



Landing call station with indicator (LCI)



Car and shaft dimensions



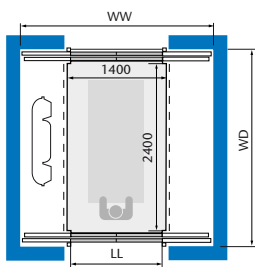
Bed Elevators

SEC = Single entrance car
TTC = Through type car

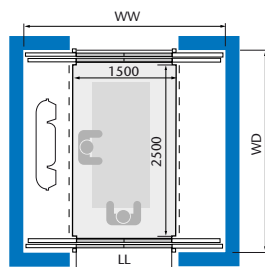
Load kg	Persons	Bed elevator	Max. speed m/s	Max stops	Car type	Car size BBxDD mm	Door width LL mm	Shaft width WW mm	Shaft depth WD mm	Overhead* SH mm	Pit depth* PH mm	Available elevator types
1600	21	Bed + 1 person	2.0	24	SEC	1400x2400	1300	2295	2850	4400	2000	★
					TTC	1400x2400	1300	2295	3090	4400	2000	★
1600	21	Bed + 1 person	2.0	24	SEC	1400x2400	1300	2350	2850	4300	1700	★
					TTC	1400x2400	1300	2350	3090	4300	1700	★
1800	24	Bed + 2 persons	2.0	24	SEC	1500x2500	1300	2295	2945	4400	2200	★
					TTC	1500x2500	1300	2295	3190	4400	2200	★
1800	24	Bed + 2 persons	1.75	24	SEC	1500x2500	1300	2350	2945	4400	1800	★
					TTC	1500x2500	1300	2350	3190	4400	1800	★
2000	26	Bed + 3 persons	2.0	24	SEC	1500x2700	1300	2295	3150	4400	2200	★
					TTC	1500x2700	1300	2295	3390	4400	2200	★
2000	26	Bed + 3 persons	1.75	24	SEC	1500x2700	1300	2350	3145	4400	1800	★
					TTC	1500x2700	1300	2350	3390	4400	1800	★
2500	33	Bed + 3 - 5 persons	1.0/1.6	24	SEC	1800x2700	1500	2600/2600	3150/3150	3900	1850	★
					TTC	1800x2700	1500	2600	3310	3900	1850	★

*) Dimensions are acc. to max. speed & CH=2400.
For other selections, please consult the local KONE sales representative.

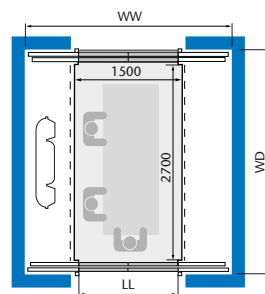
1600 kg / 21 persons
Through type / center opening



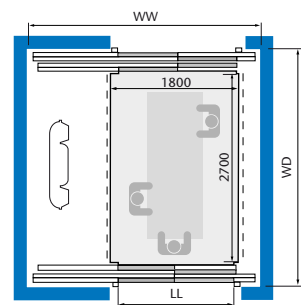
1800 kg / 24 persons
Through type / center opening



2000 kg / 26 persons
Through type / center opening



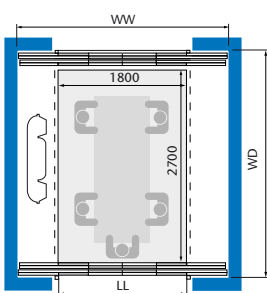
2500 kg / 33 persons
Through type / side opening



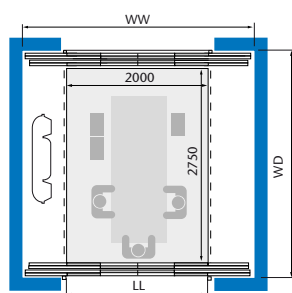
Load kg	Persons	Bed elevator	Max. speed m/s	Max stops	Car type	Car size BBxDD mm	Door width LL mm	Shaft width WW mm	Shaft depth WD mm	Overhead* SH mm	Pit depth* PH mm	Available elevator types
2500	33	Bed + 3 - 5 persons	1.0/1.6	12	SEC	1800x2700	1800	3050	3100	4100	1600/1700	★
					TTC	1800x2700	1800	3050	3250	4100	1600/1700	★
3000	40	Bed + 3 persons + monitoring equipment	1.0/1.6	12	SEC	2000x2750	2000	3250	3150	4100	1600/1700	★
					TTC	2000x2750	2000	3250	3300	4100	1600/1700	★
4000	54	Bed + 5 persons + monitoring equipment	1.0	12	SEC	2100x3400	2100	3350	3800	4100	1750	★
					TTC	2100x3400	2100	3350	3950	4100	1750	★
5000	67	Bed + 5 persons + monitoring equipment	1.0	12	SEC	2500x3500	2500	3900	3900	4500	2100	★
					TTC	2400x3650	2400	3750	4200	4500	2100	★

*) Dimensions are acc. to max. speed & CH=2400.
For other selections, please consult the local KONE sales representative.

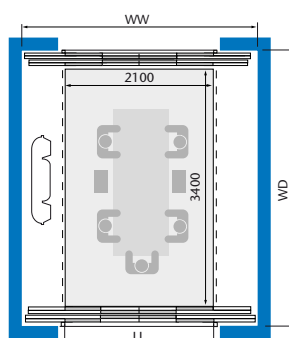
2500 kg / 33 persons
Through type / center opening



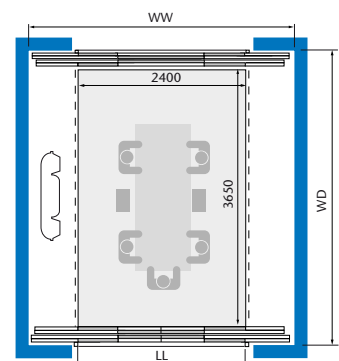
3000 kg / 40 persons
Through type / center opening



4000 kg / 54 persons
Through type / center opening



5000 kg / 67 persons
Through type / center opening





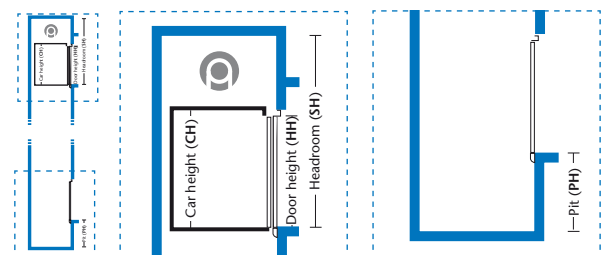
Service Elevators

SEC = Single entrance car
TTC = Through type car

Load kg	Persons	Bed elevator	Max. speed m/s	Max stops	Car type	Car size BBxDD mm	Door width LL mm	Shaft width WD mm	Shaft depth WD mm	Overhead* SH mm	Pit depth* PH mm	Available elevator types
1000	13	-	2.0	24	SEC	1100x2100	1000	1950	2450	4150	2050	★
					TTC	1100x2100	1000	1950	2590	4150	2050	★
1000	17	Bed + 1 person	2.0	24	SEC	1100x2100	1000	1950	2420	4150	1500	★
					TTC	1100x2100	1000	1950	2590	4150	1500	★
1275	17	Bed + 1 person	2.0	24	SEC	1200x2300	1100	2400	2650	4200	1700	★
					TTC	1200x2300	1100	2400	2790	4200	1700	★
1350	17	Bed + 1 person	2.0	24	SEC	1300x2300	1100	2400	2750	4400	1700	★
					TTC	1300x2300	1100	2400	2790	4400	1700	★
1600	21	Bed + 1 person	2.0	24	SEC	1400x2400	1300	2295	2850	4400	2000	★
					TTC	1400x2400	1300	2295	3090	4400	2000	★
1600	21	Bed + 1 person	2.0	24	SEC	1400x2400	1300	2350	2850	4300	1700	★
					TTC	1400x2400	1300	2350	3090	4300	1700	★
1800	24	Bed + 2 persons	2.0	24	SEC	1500x2500	1300	2295	2945	4400	2200	★
					TTC	1500x2500	1300	2295	3190	4400	2200	★
1800	24	Bed + 2 persons	2.0	24	SEC	1500x2500	1300	2350	2945	4400	1800	★
					TTC	1500x2500	1300	2350	3190	4400	1800	★
2000	26	Bed + 3 persons	2.0	24	SEC	1500x2700	1300	2295	3150	4400	2200	★
					TTC	1500x2700	1300	2295	3390	4400	2200	★
2000	26	Bed + 3 persons	2.0	24	SEC	1500x2700	1300	2350	3145	4400	1800	★
					TTC	1500x2700	1300	2350	3390	4400	1800	★
2500	33	Bed + 3 - 5 persons	1.6	24	SEC	1800x2700	1500	2600/2600	3150/3150	3900	1850	★
					TTC	1800x2700	1500	2600	3310	3900	1850	★
2500	33	Bed + 3 - 5 persons	1.0	12	SEC	1800x2700	1800	3050	3100	4100	1600	★
					TTC	1800x2700	1800	3050	3250	4100	1600	★
3000	40	Bed + 3 persons + monitoring equipment	1.0	12	SEC	2000x2750	2000	3250	3150	4100	1600	★
					TTC	2000x2750	2000	3250	3300	4100	1600	★
4000	54	Bed + 5 persons + monitoring equipment	1.0	12	SEC	2100x3400	2100	3350	3800	4100	1750	★
					TTC	2100x3400	2100	3350	3950	4100	1750	★
5000	67	Bed + 5 persons + monitoring equipment	1.0	12	SEC	2500x3500	2500	3900	3900	4500	2100	★
					TTC	2400x3650	2400	3750	4200	4500	2100	★

*) Dimensions are acc. to max. speed & CH=2400.
For other selections, please consult the local KONE sales representative.

- ★ KONE MonoSpace
- ★ KONE MiniSpace
- ★ KONE TranSys



Passenger elevators

SEC = Single entrance car
TTC = Through type car

Load kg	Persons	Bed elevator	Max. speed m/s	Max stops	Car type	Car size BBxDD mm	Door width LL mm	Shaft width WW mm	Shaft depth WD mm	Overhead* SH mm	Pit depth* PH mm	Available elevator types
1000	13	-	2.0	24	SEC	1600x1400	1000	2300	1950	4150	2000	★
					SEC	1600x1400	1000	2250	1950	4150	1550	★
1150	15	-	2.0	24	SEC	1800x1450	1100	2550	2000	4150	2000	★
					SEC	1800x1450	1100	2500	1950	4150	1570	★
1350	18	-	2.0	24	SEC	2000x1500	1100	2700	2100	4400	2000	★
					TTC	2000x1500	1100	2500	2150	4250	1650	★
1600	21	-	2.0	24	SEC	2100x1600	1100	2800	2150	4300	2000	★
					TTC	2100x1600	1100	2700	2250	4250	1650	★

*) Dimensions are acc. to max. speed & CH=2400.
For other selections, please consult the local KONE sales representative.

KONE TravelMaster 110™

planning dimensions

KONE TravelMaster™ escalators are available in three step widths and glass or solid balustrades with many other available options and nishes. 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 railway or metro stations, public access, office or retail applications.

KONE TravelMaster™ 110 basic data	
Inclination	30° or 35°
Horizontal steps	2/2, 3/3
Transition radii (top/bottom)	1.0/1.0 and 1.5/1.0
Maximum rise	9.5 m
Operational environment	Indoor, semi-outdoor, full-outdoor
Step width	600 mm, 800 mm, 1000 mm
Balustrade type	10 mm tempered glass with slim handrail profile. Stainless steel sandwich panel balustrade, balustrade extension of 400 mm or 700 mm.
Balustrade height	Standard: 900 mm, Optional: 1000 mm/1100 mm
Speed	0.5 m/s and 0.65 m/s
Step chains	Inside roller chains
Duty cycle	12-16 hours depending on the passenger load
Typical service life	100,000 hours

KONE TravelMaster™ 110 width dimensions, mm			
W1 – width of step	1000	800	600
W2 – handrail centre line distance	1262	1064	866
W3 – Hoisting holes distance	1360	1160	960
W4 – Width of truss	1510	1310	1110
W5 – Width of escalator	1547	1347	1147
W6 – Width of pit	1650	1450	1250

Available truss configurations

TransitMaster™ 120

Inclination 30 – 1.0/1.0 radius – 2 Level Step – 1000 mm step width
 Inclination 30 – 1.0/1.0 radius – 2 Level Step – 800 mm step width
 Inclination 30 – 1.0/1.0 radius – 2 Level Step – 600 mm step width

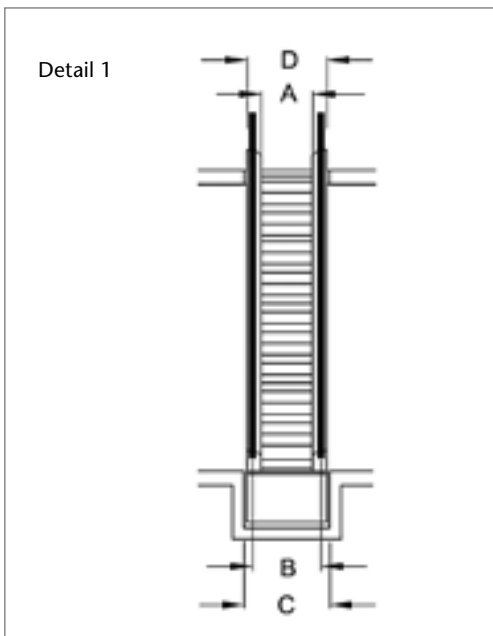
Inclination 35 – 1.0/1.0 radius – 2 Level Step – 1000 mm step width
 Inclination 35 – 1.0/1.0 radius – 2 Level Step – 800 mm step width
 Inclination 35 – 1.0/1.0 radius – 2 Level Step – 600 mm step width

Inclination 35 – 1.0/1.0 radius – 3 Level Step – 1000 mm step width
 Inclination 35 – 1.0/1.0 radius – 3 Level Step – 800 mm step width
 Inclination 35 – 1.0/1.0 radius – 3 Level Step – 600 mm step width

Below 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 1000 mm step width
 Below 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 800 mm step width
 Below 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 600 mm step width
 Above 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 1000 mm step width
 Above 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 800 mm step width
 Above 6 m rise – Inclination 30 – 1.5/1.0 radius – 3 Level Step – 600 mm step width

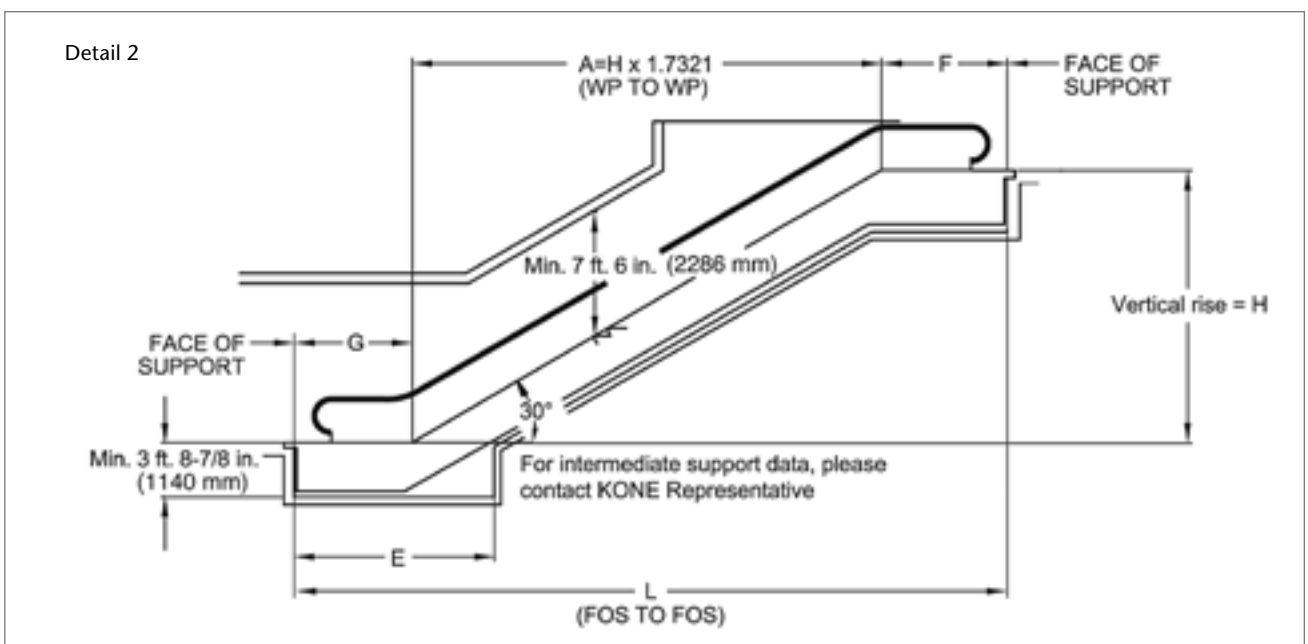
Note

All packages are available with 900 mm, 1000 mm and 1100 mm balustrade height.



Notes

- (1) Details represent standard KONE escalator configurations. Please consult your Sales professional to review all possible deviations.
- (2) Please visit kone.com for the latest job-specific details, electrical data, reaction loads and building access requirements.



Lower cost of ownership for the life

KONE has long experience in complex hospital projects, from the early design stages and throughout the building's lifecycle. When designing the building, thorough people flow analysis ensures that customer have the right equipment for their 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 to upgrade elevators and escalators as needed.



Design services

KONE supplies more than elevators, escalators and building doors. We provide a complete people flow™ solution, designed to serve for the lifetime of the building. So 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 any requirements.



Visual design of elevators in hospitals is important, not only from the aesthetics point of view, but also from functional, durability and hygienic points of view. KONE works with customer's design team to ensure that the people flow solution meets the requirements of the medical facility and is integrated with the architect's vision. Customers can choose from wide range of high quality materials to create an elevator or escalator that suits any type of architecture. KONE can also help customer to create fully customized solutions.

Construction services

KONE has been involved in many major hospital projects; a few examples can be seen on the following pages. Our experienced project management teams guarantee smooth coordination with all parties involved in the project. KONE also can supply solutions that speed up the construction process. KONE's construction time elevators enable



fast and efficient vertical transportation of people and goods during the construction phase. Once the equipment has been installed, our experts examine and evaluate its performance, ensuring that all quality requirements have been met.

time of the facility



Maintenance services

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



KONE's maintenance and monitoring solutions maximize reliability and safety while minimizing downtime and costs. KONE Care™ maintenance solutions are based on preventive maintenance methods, the aim being to fix faults before they develop into bigger problems. The KONE Customer Care Center™ offers round-the-clock service and tracks equipment operation information, service records, and technical data.



Modernization services

Modernizing your elevators, escalators or building 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 customer 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.

References



Hospital de Oviedo Asturias (HUCA), Spain



CHU de St Etienne Hôpital Nord, France



KK Women's and Children's Hospital , Singapore



Peking Union Medical College hospital, Beijing, China



China Navy General hospital, Beijing, China



Hospital of Chinese medicine, Suzhou, China



KONE provides innovative and eco-efficient solutions for elevators, escalators and automatic building doors. We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life-cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace[®], KONE MaxiSpace[™], and KONE InnoTrack[™]. You can experience these innovations in architectural landmarks such as the Trump Tower in Chicago, the 30 St Mary Axe building in London, the Schiphol Airport in Amsterdam and the Beijing National Grand Theatre in China.

KONE employs approximately 34,000 dedicated experts to serve you globally and locally in over 50 countries.

KONE Corporation
www.kone.com

This publication is for general informational purposes only and we reserve the right at any time to alter the product design and specifications. No statement contained in this publication shall be construed as a warranty or condition, express or implied, as to any product, its fitness for any particular purpose, merchantability, quality or shall be interpreted as a term or condition of any purchase agreement for the products or services contained in this publication. Minor differences between printed and actual colors may exist. KONE[®], Dedicated to People Flow[™], KONE MonoSpace[®], KONE MiniSpace[™], KONE EcoDisc[®], KONE Alta[™], KONE MaxiSpace[™], KONE InnoTrack[™], KONE EcoMaster[™], KONE MovingMedia[™], are trademarks or registered trademarks of KONE Corporation. Copyright © 2010 KONE Corporation.