

Introducing the ThyssenKrupp TWIN® elevator system

2 cabs, 1 shaft, 0 crowds

As the construction boom continues in major Asian cities, the average height of buildings is rising - along with the value of land. The taller a building, the greater the transportation capacity of its elevator system needs to be as increasing numbers of passengers travel ever higher to an increasing numbers of floors. In this context, the TWIN elevator system, exclusively supplied by ThyssenKrupp Elevator, is the ideal solution for saving both time and space. It is the only elevator system on the market that offers two cars moving in one shaft independently and it addresses a wide range of issues that owners, operators and occupants of tall buildings face before, during and after construction.

TWIN keeps waiting time to a minimum

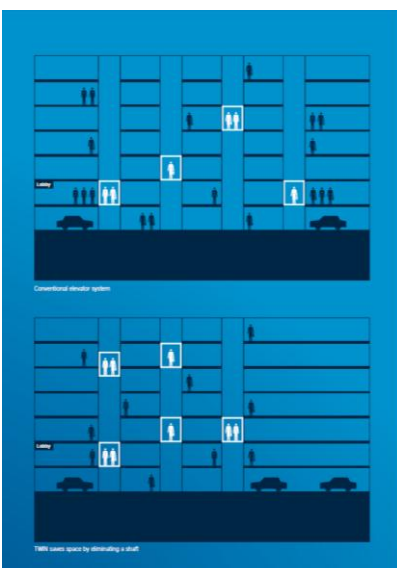


[Destination Selection Control \(DSC\) - the brains behind the TWIN system](#)

Due to the fact that the two cars operate independently in the same shaft, TWIN is able to take two passengers to two different floors at the same time. No longer do passengers need to wait in a stationary double-deck elevator while passengers get in or out of the deck above or below. To keep the elevators out of each other's way and to reduce unnecessary waiting time, TWIN exploits the advantages of a passenger grouping system: ThyssenKrupp Elevator's intelligent Destination Selection Control (DSC) system – minimises travel time by reducing the number of stops each elevator

has to make and improving service levels for end users. Passengers use a swipe card or PIN code and indicate the floor they want on the touch screen terminal graphics, the computer assisted system then determines the elevator that will get there fastest and displays it on the screen. In addition to optimizing the traffic flow, the DSC system also makes the elevator group operation more flexible and can be adapted according to the requirement of the owner or different tenants, including VIP or emergency call overrides to gain immediate access to an elevator.

TWIN increases usable floor space and design possibilities



Saving floor space without sacrificing handling capacity is now a very real possibility

Traditionally, improving the service level of your elevator system has meant a loss of rentable space due to a bigger elevator core. Only TWIN gives you the choice of better traffic handling capacity without increasing the footprint of the elevator core, or the same handling capacity as a conventional elevator system but with a smaller core. Building owners can now decide if they want to: either offer more usable, rentable floor space to tenants and incur lower construction costs in the process without a loss in performance or alternatively, upgrade the service level provided by their building to tenants.



Operating at different speeds and in different directions, TWIN brings a new twist to the term 'architecture in motion'

Furthermore, a sometimes unexpected design benefit of TWIN is the visual impact that its panorama car option can bring to a building exterior or atrium as passersby stop to watch the cars move tantalizing towards and away from each other.

TWIN increases passenger handling capacity

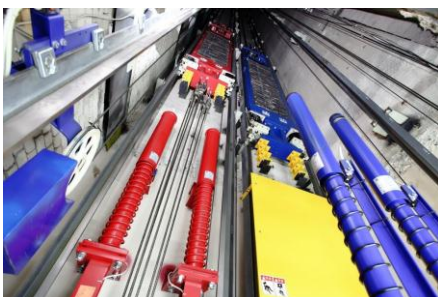
In addition to maximising the passenger handling capacity for new buildings, TWIN can be retrofitted as a modernisation option to increase the traffic handling capacity of existing elevator shafts by boosting the capacity of the system. Alternatively, modernizing with TWIN allows you to free up shafts for other uses such as air conditioning or network cabling while keeping the passenger handling capacity the same as before - or even increasing it.

TWIN saves energy



By using standard sized, energy-efficient gearless machines, single cars and single counterweights, TWIN requires 30% less energy than conventional double-deck systems

All TWIN elevators are powered by energy-efficient gearless machines and equipped with regenerative drives which feed the energy produced by the motor during the generative mode back into the power supply system in the building. TWIN offers an additional 30% energy saving over conventional double-deck solutions in non-shuttle elevator applications. Though double-deck elevators are an increasingly popular choice in today's high-rise buildings, they have however a heavier total mass to move, whereas TWIN needs about 30% less connected electrical loads, which means smaller ratings for transformers and electrical wiring. Due to less power required for the TWIN system than double-deck elevators, there is also less heat output in the machine rooms resulting in lower costs for air-conditioning. Another advantage of TWIN over double-deck is that the emergency diesel generator of the building can be downsized by about 50%. Furthermore, the TWIN system even offers the ability to park and switch off one of the cars when traffic is light, thus saving additional energy that makes a significant contribution to lower running costs over the course of the building's lifetime.



Even when only one person is travelling, a double-deck lift system has to move a double sized car and counterweight. TWIN can operate with just one

TWIN has safety and reliability built in



The TWIN system is continuously monitored to ensure safe distances between cars are maintained at all times.

ThyssenKrupp Elevator has developed an innovative quadruple redundancy safety system, facilitated by DSC, namely, anti-collision routing, automatic monitoring of minimum safety distances, an emergency stop function and automatic engagement of the safety gear which, in the unlikely event that the first three stages fail, all work together to keep 2 cabs a safe distance apart at all times. In compliance with IEC EN 61508, these last two safety levels are continuously monitored by an independent control system - giving the TWIN system the highest possible international safety classification in the world today (SIL3). On top of this, building owners and occupants

alike will be reassured by the high quality standards, attention to detail and precision manufacturing one would expect from the only German elevator solutions provider with a global market presence. Ingenious thinking, extraordinary engineering, a highly developed control system and an exemplary safety concept are brought together in the TWIN system.

And you don't have to travel too far to find a building that is taking advantage of TWIN's unique advantages; TWIN systems have been installed in new and modernized buildings in numerous countries, including Germany, the United Kingdom, Australia, China, South Korea, Saudi Arabia and Russia. More are being planned every year.

For further information about TWIN, readers should go to <http://thyssenkrupp-elevator-ap.com>