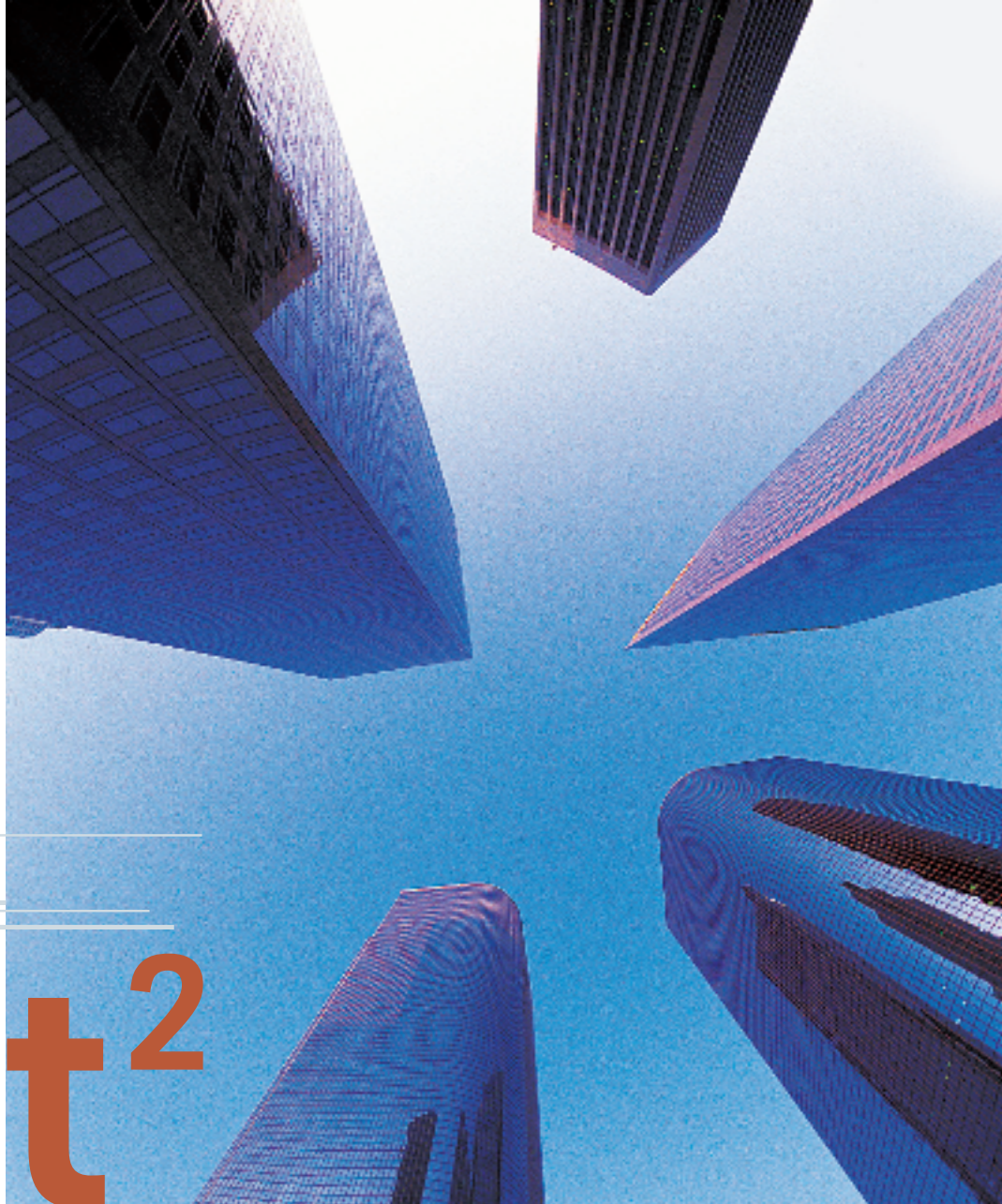
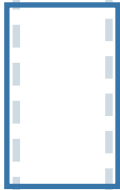
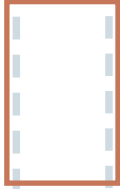


**TWIN –**

**The revolutionary system in  
elevator design.**

Two cars. One shaft. One quantum leap.



**Lift<sup>2</sup>**

A Company  
of ThyssenKrupp  
Elevator

**ThyssenKrupp Aufzüge**



**ThyssenKrupp**



## Unbelievable, but two.

For the first time, one elevator shaft is sufficient for two independent cars. TWIN gains room<sup>2</sup>.

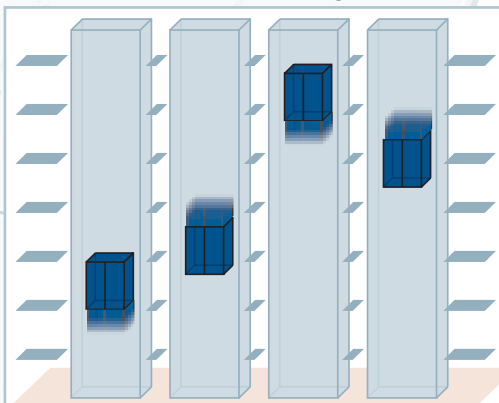
ThyssenKrupp Aufzüge is the first elevator manufacturer implementing the idea of two cars travelling independently in a single shaft.



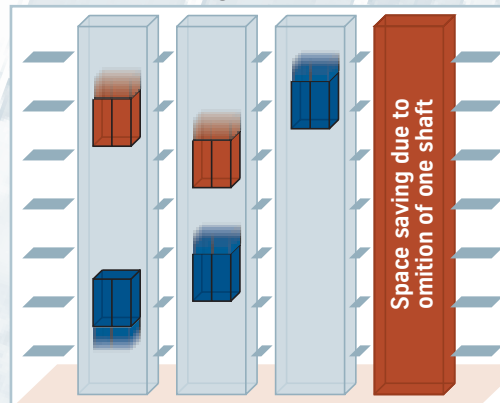
The TWIN-system was installed and first operated at Stuttgart University. Before that, TÜV had checked the system and approved it without limitations.



Traditional elevator group



Elevator group with TWIN



**The same handling capacity with 25% less shaft.**

The picture on the left shows a group with 4 elevators. On the right: The revolutionary solution with a group of 5 elevators consisting of two TWIN-systems and one conventional elevator.

This means a significant increase of useable space, respectively saving of construction volume, or significantly increased handling capacity.



# m<sup>2</sup>

Gaining or saving space equals gaining or saving capital.

## Who said there could only be one?

### 1931

Already during the early thirties, patents for elevator systems with two cars in one shaft were registered. However, too many technical and control relevant questions remained unanswered for mass production and the genius idea remained a vision.

### 2003 - The vision becomes reality.

ThyssenKrupp Aufzüge is the first elevator manufacturer presenting the revolutionary TWIN elevator system. Thanks to extraordinary engineering work, a highly developed control system, and an exemplary safety concept an innovative solution was developed, which permits the operation of two independent cars in a single shaft. TWIN therefore saves elevator shafts, which results in a reduction of erection costs or more rental space. And all of that with at least the same handling capacity.



# The strong elevator is most powerful in twos.

Technology meets innovation and creates groundbreaking dimensions of flexibility. TWIN frees<sup>2</sup>.

New benefit potentials in building design, modernization and time savings.



## Easy modernization.

No other type of technology can increase the handling capacity of an elevator group without major construction measures as significantly as TWIN.

Fig.: Layout of drives for the TWIN-system

## TWIN potentials for new installations and modernization

### Space savings through omission of a shaft

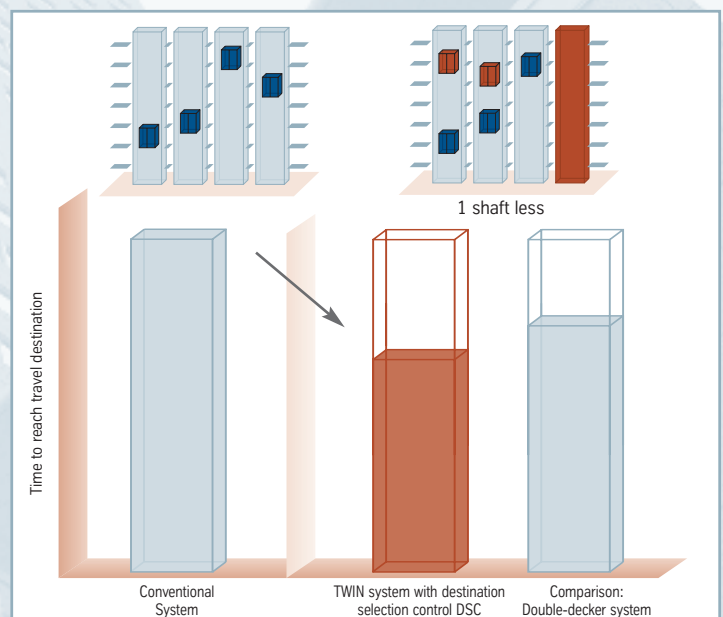
The range of applications with new installations

1. Through omission of elevator shafts:
  - Saving construction volume, or
  - additionally available floor space (more rental space).

or

2. More handling capacity with the same number of elevator shafts or the same handling capacity with fewer elevator shafts.

In both cases ideal if two main entrance landings exist.



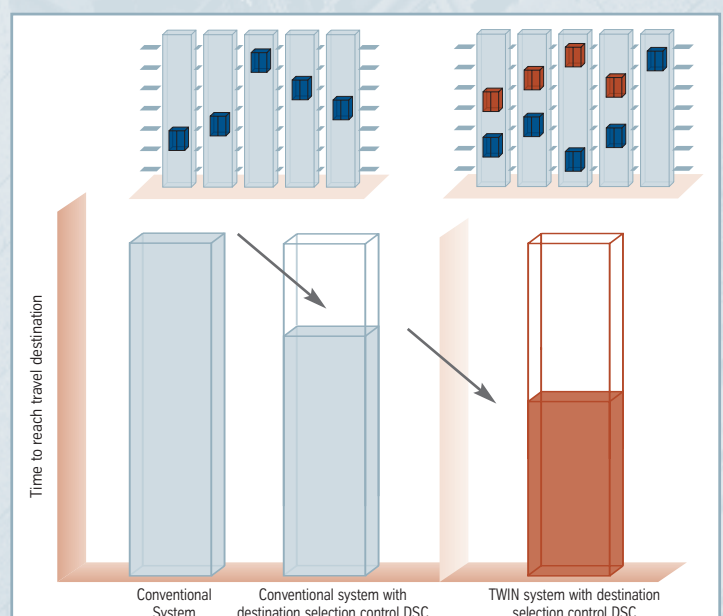
### The range of applications with modernized systems

1. Increased handling capacity with existing buildings:
  - To solve problems if handling capacity requirements change for a particular building.

or

2. An elevator shaft must be "vacated" for other types of use:
  - To install technology in the building (airconditioning technology, wiring, etc.).
  - Handling capacity of the entire elevator group remains intact, or becomes even greater.

In both cases ideal if two main entrance landings exist.



### **Optimal run in pairs.**

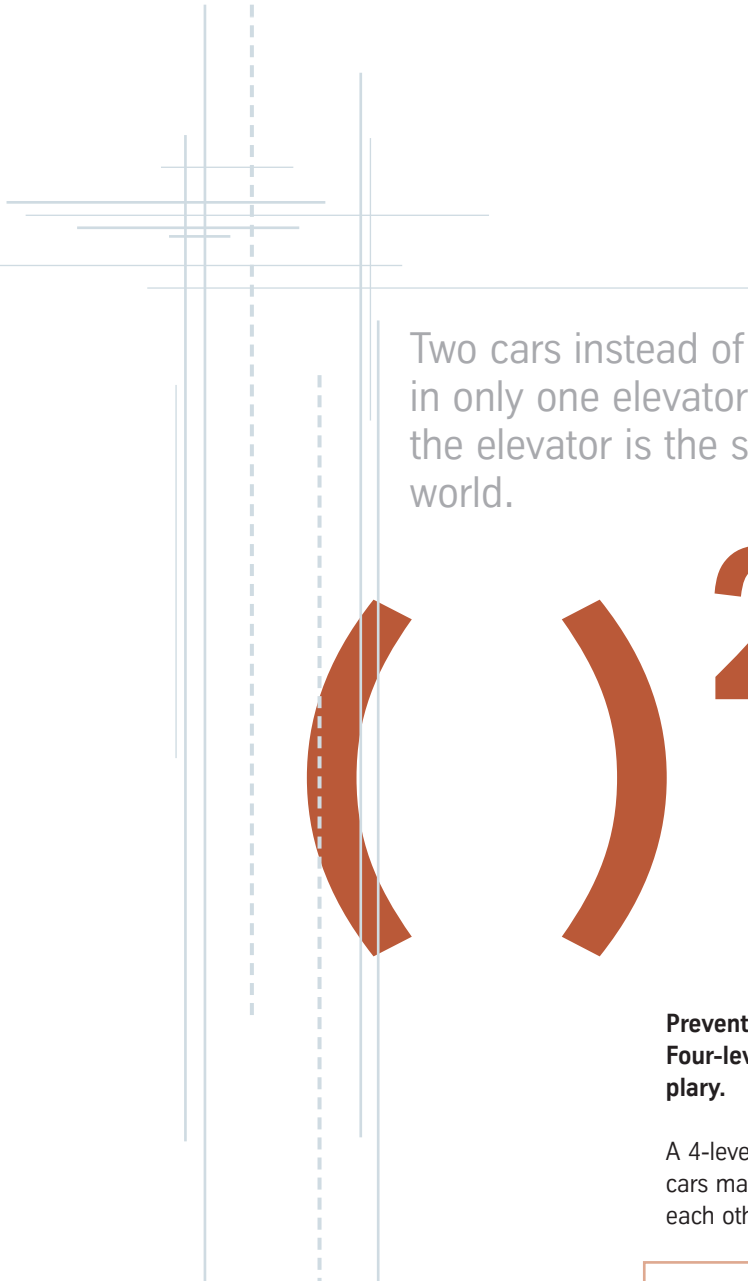
Both elevators are equipped with their own traction drive and travel above one another on the same rails. The intelligent ThyssenKrupp destination selection control DSC is the central and indispensable component of the TWIN and provides perfect coordination of the elevator group. The passage target landing is recorded in addition to the travel direction during the call prior to entering the car, which prompts the control to assign the most suitable elevator to the call location. Compared to conventional elevator systems, TWIN also provides Information<sup>2</sup> and car<sup>2</sup>. This results in the new Elevator<sup>2</sup>.

Ideal for building heights between 50 and 200 meters, TWIN also provides entirely new solutions for building design and layout of elevator groups. This makes completely new traffic concepts in buildings possible.



# x<sup>2</sup>

Any achievement setting new standards  
provides as yet unknown answers to  
currently unanswered questions.



Two cars instead of one can now travel independently in only one elevator shaft. This underlines the fact that the elevator is the safest means of transportation in the world.

( )<sup>2</sup>

**Preventive and protective measures.  
Four-level concept serves as an exemplary.**

A 4-level safety concept assures that the cars maintain a minimal clearance from each other during any operation condition.

**1. Safety level**

Target calls are always distributed so that the cars will not hinder each other and always maintain a minimal clearance.

**2. Safety level**

Monitoring of minimum clearances. When the cars approach each other, the speed is reduced so that an operational stop is possible at any time without exceeding the minimum clearance.

**3. Safety level**

Emergency stop. When another safety clearance is exceeded, the drives are stopped and the operating brakes activated.

**4. Safety level**

If the absolutely unlikely event occurs where none of the three safety levels lead to slowing down the cars, the safety gears on both cars are activated by force.

The safety concept of the TWIN passed all comprehensive tests as part of internal development procedures, as well as the TÜV test, thus having impressively demonstrated a safety standard that meets even the highest demands.



## Two Hundred Percent.

A new kind of safety concept guarantees:  
TWIN is safe<sup>2</sup>.

With our safety devices, eventualities  
don't stand a chance.



### With safe clearance.

View from the lower car to the  
car travelling above. The  
adjacent picture shows  
activation of Level 3 of the  
safety concept.



### ThyssenKrupp destination selection control DSC.

The passenger enters his destination by means of the special user interface (colour display with touch screen) even before stepping into the elevator, the controller assigns the call to the elevator which will quickest take the passenger to his destination. The ThyssenKrupp destination selection control DSC is an integral component of the TWIN system.



### ThyssenKrupp Monitoring.

Optimal information for the evaluation of traffic performance and control of diverse elevator functions.

Presented by:

**ThyssenKrupp Aufzugswerke GmbH**

A Company of ThyssenKrupp Elevator  
Bernhäuser Straße 45, 73765 Neuhausen a.d.F., Germany  
Phone: +49 (0) 7158 12-0, Fax: +49 (0) 71 58 12-25 85  
Email: [info@tke-aufzuege-de.thyssenkrupp.com](mailto:info@tke-aufzuege-de.thyssenkrupp.com)  
Internet: [www.thyssen-aufzuege.com](http://www.thyssen-aufzuege.com)

Printed in Germany 9700 000 5156-0 02/03  
The details quoted in this brochure can only be  
viewed as binding when confirmed expressly in writing.  
Reproduction, reprint and storage without consent of the  
editor is illegal.