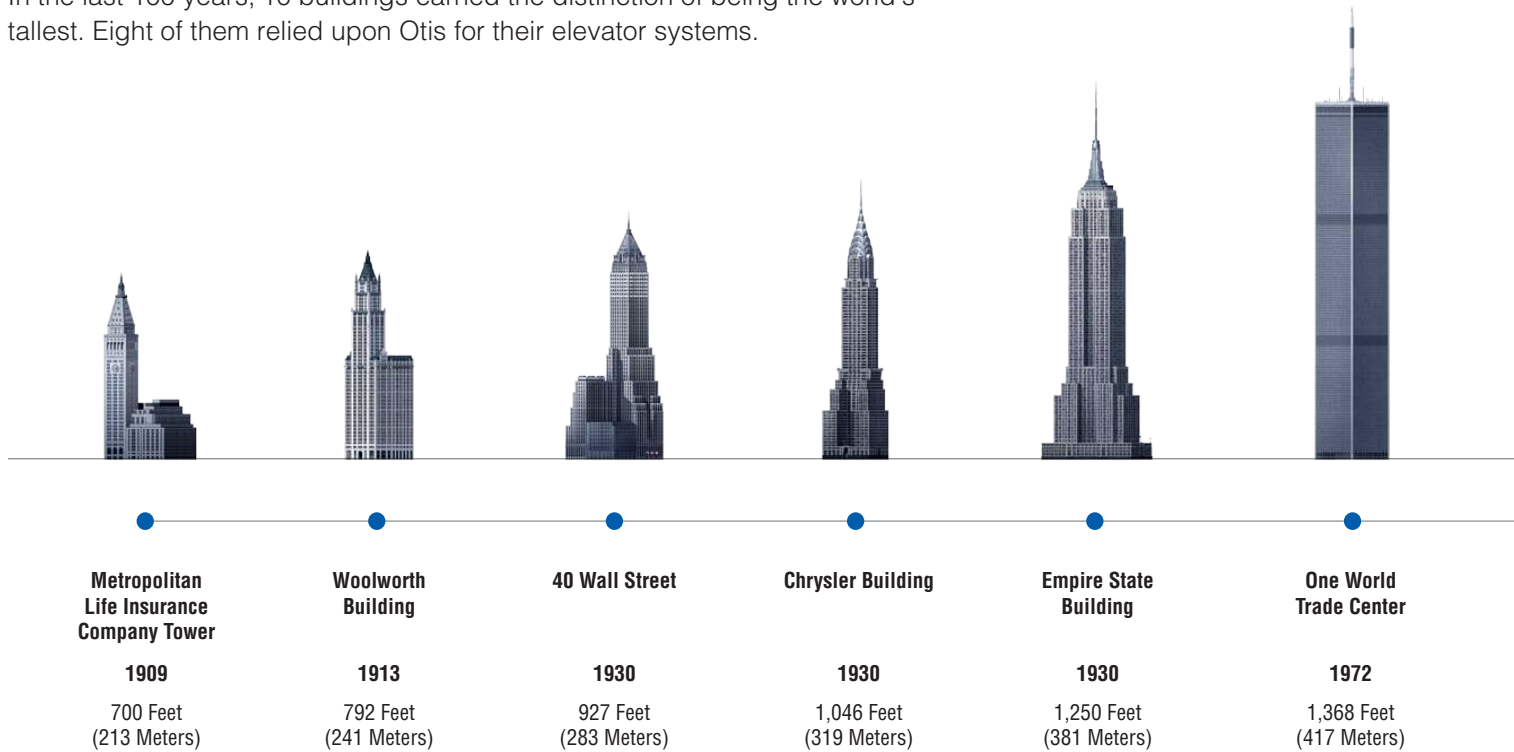




THE WAY TO GREEN™

## Engineered to meet the highest of challenges

In the last 100 years, 10 buildings earned the distinction of being the world's tallest. Eight of them relied upon Otis for their elevator systems.



Skyscraper diagrams ©Skyscraper Source Media, Inc. Skyscraperpage.com  
Cover image courtesy of Emaar Properties

### The Skyrise system delivers:



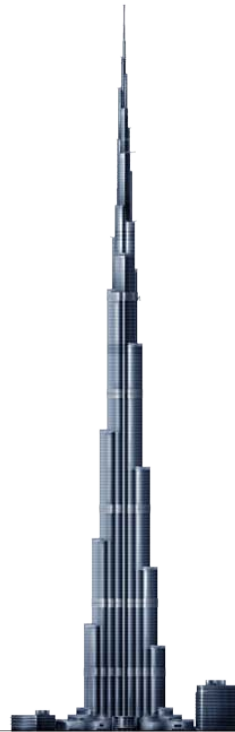
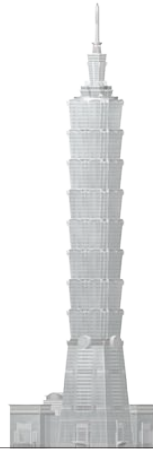
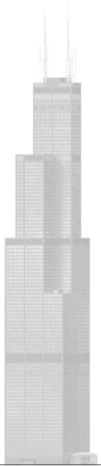
Space-Saving Design



Superior Passenger Experience



Green Technology



Willis Tower  
(Formerly Sears Tower)

Petronas Towers

Taipei 101

Burj Khalifa

1974  
1,451 Feet  
(442 Meters)

1998  
1,483 Feet  
(452 Meters)

2004  
1,671 Feet  
(508 Meters)

2010  
2,717 Feet  
(828 Meters)



Project Management



Proven Reliability

# Space-Saving Design

## Smaller is better

Designed for flexibility, the Skyrise system features smaller, optimized components for a smaller hoistway. These features free up valuable core space inside your building.



### Smaller controller

Using the latest innovative design technology, the Skyrise system's controller is more than 50% smaller than conventional high-rise controllers.



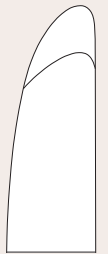
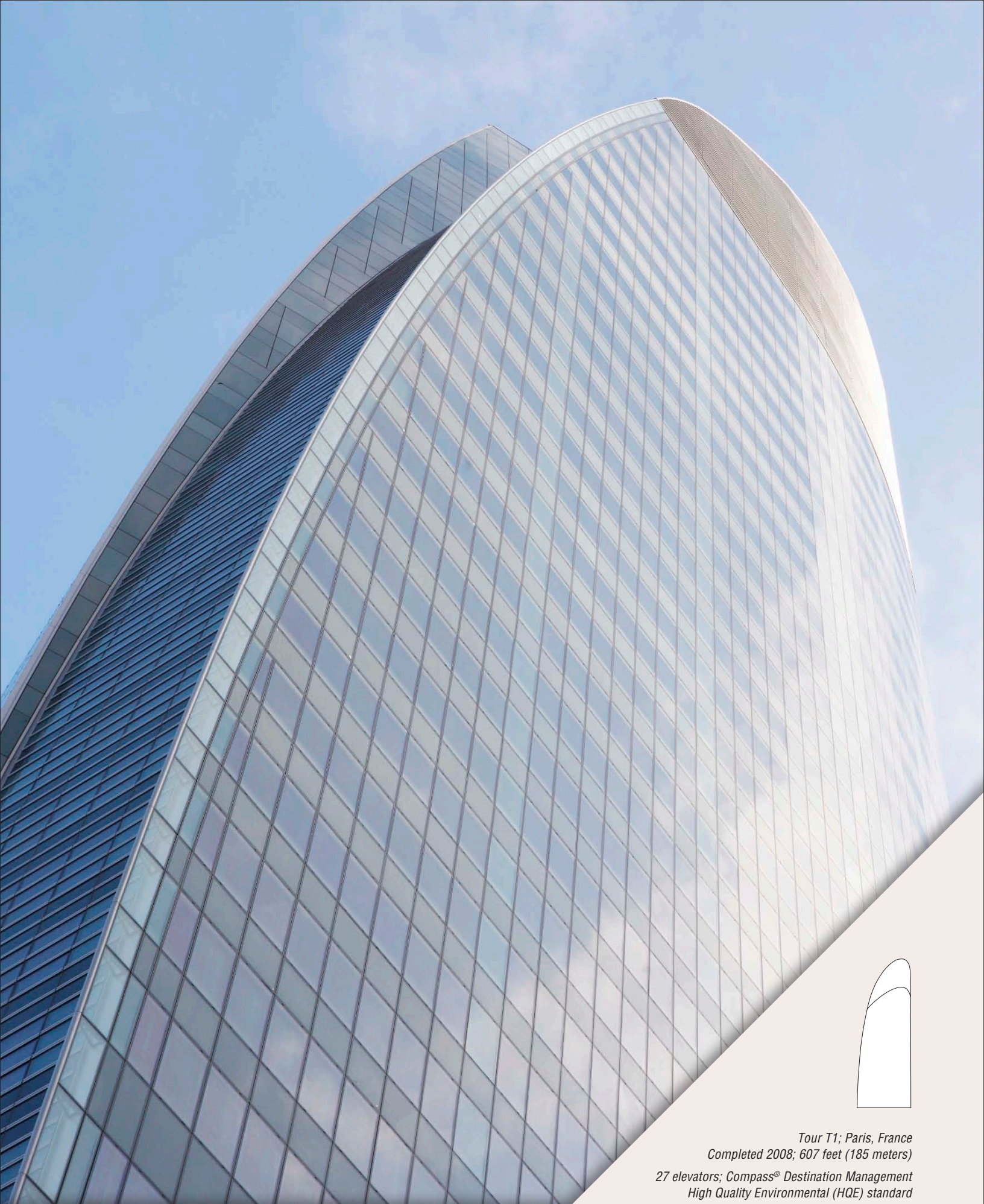
### Smaller machine

The Skyrise machine reflects a new, more compact design, which is up to 40% smaller than previous models.



### Smaller machine room

With smaller components, you can also enjoy a smaller machine room and greater design flexibility.



*Tour T1; Paris, France  
Completed 2008; 607 feet (185 meters)  
27 elevators; Compass® Destination Management  
High Quality Environmental (HQE) standard*



*Burj Khalifa; Dubai, United Arab Emirates  
Completed 2010; 2,717 Feet (828 meters)*

*57 elevators (2 double-deck); 8 escalators;  
Compass Destination Management*

*World's Tallest Building  
World's Fastest Double-Deck Elevators (10m/s)*

# Superior Passenger Experience

## Taking the passenger experience to a new level

Skyrise is engineered to deliver a remarkably smooth, comfortable passenger experience while ensuring the highest levels of performance and reliability.



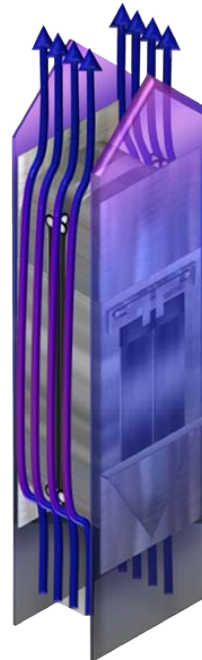
### ULTRA™ roller guides

Otis' self-adjusting ULTRA roller guides keep the elevator car properly aligned as it moves up and down the hoistway. The result is a quieter, smoother ride with up to 50 percent less lateral vibration.



### Otis Glide™ P door operator

The innovative Otis Glide P door operator features dual motors and permanent magnet technology to deliver industry-leading performance that is fast, smooth and reliable.



### Aerodynamic cab

The Skyrise elevator cab's design is the result of Otis' extensive sound and vibration analysis. The cab's curved lines and unique construction help minimize noise and vibration for smooth, quiet travel.

### SNAP motion control

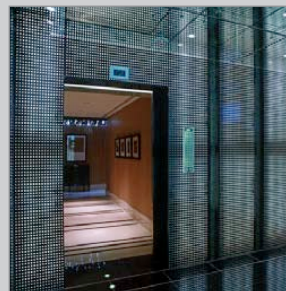
The Skyrise system's advanced SNAP motion control profiles adjust elevator motion for enhanced passenger comfort throughout each trip. SNAP technology reduces car vibration by up to 35% at the start and end of each elevator run.

## Options



### Compass® destination management

The Compass system offers tenants and visitors personalized elevator service while improving the flow of building traffic. The system is fully customizable to meet your building's design, traffic and security needs.



### Custom aesthetics

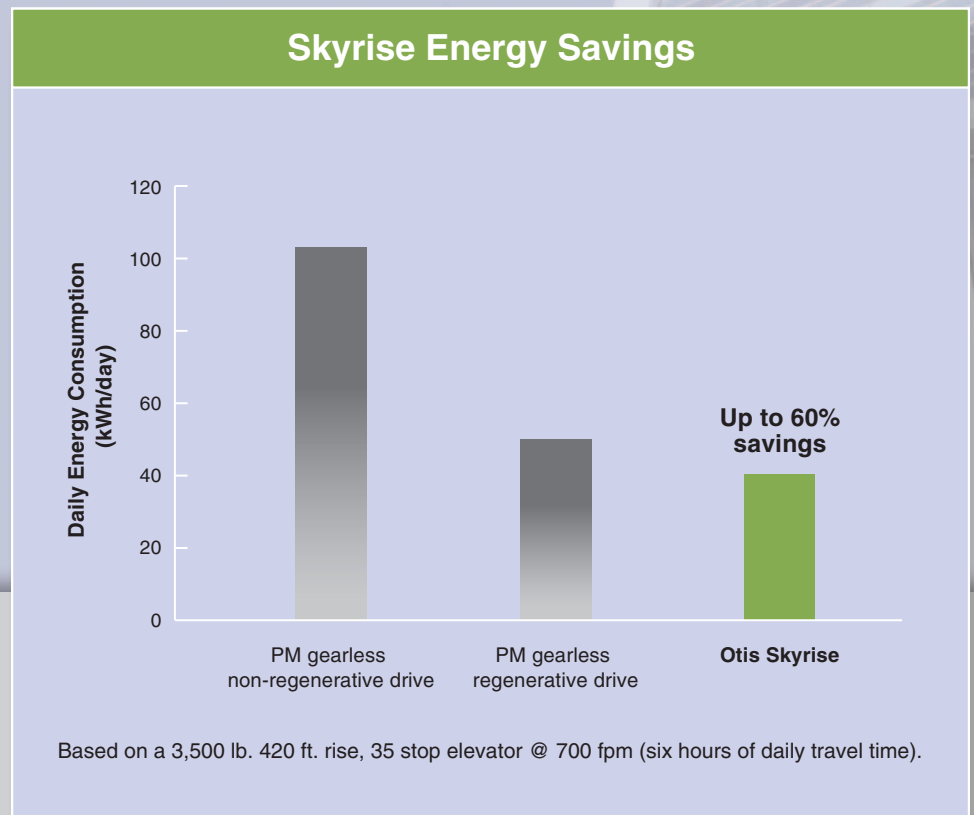
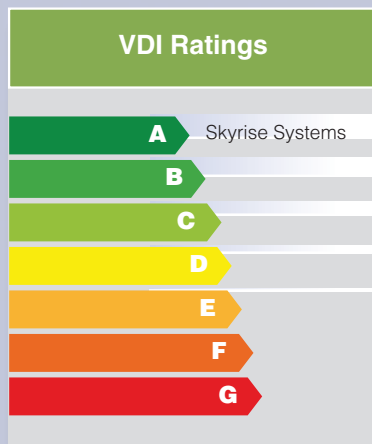
Otis offers a range of aesthetic options to support your unique design vision.

## Innovation meets sustainability

Otis is leading the industry with The Way to Green – our end-to-end commitment to incorporating environmental awareness into everything we do. We encourage and enable more than 60,000 employees worldwide to address the future positively and proactively. The Skyrise system strongly reflects this commitment. Its lighter cab design and energy-saving technologies help reduce energy consumption while delivering superior passenger travel.

### Top-rated for energy efficiency

The energy-efficiency of Skyrise systems has been validated based on standards set by Verein Deutscher Ingenieure (VDI) – one of the largest technical-scientific associations in Europe. Based on performance, Skyrise systems achieved an overall “A” class rating – the highest of all VDI ratings.

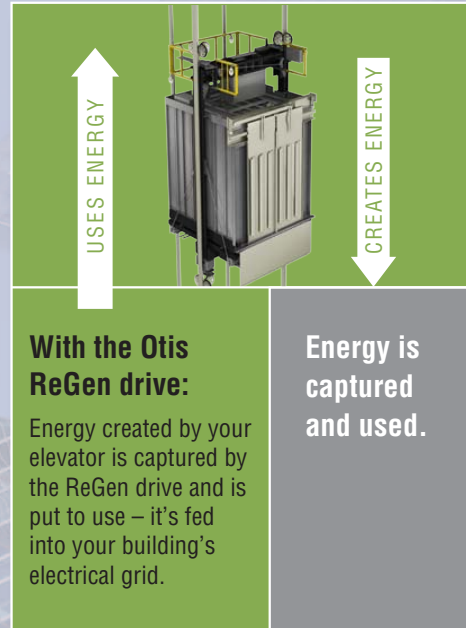






### ReGen® technology

ReGen drives deliver substantial energy savings while helping to meet or exceed worldwide standards. ReGen drives capture energy that is usually lost and feed it back into the building's internal electrical grid so it can be re-used by other building systems. Thanks to low harmonic distortion, this recycled energy provides clean power, minimizing impact to your building's electrical system.



### Highly-efficient permanent magnet machine

The Skyrise system's permanent magnet machine delivers increased energy efficiency. It reduces energy loss by up to 35 percent compared to induction machines.



### Sleep mode

Lights and fan are shut down when there's no demand, making LED lighting up to 80 percent more efficient than conventional lighting. The system seamlessly springs back to life with the press of a call button.

### Reducing power requirements and costs

The Skyrise system's motor requires less power than DC machines, providing the opportunity to reduce overall power requirements by up to 20 percent. This can help save significant installation and operational costs.





*Otis' experienced project teams proudly develop customized solutions to meet the unique challenges of each high-rise project.*

## A global team of experts to help you reach new heights

Otis' team has one goal in mind: providing expert support and solutions to ensure your project's success.

### Industry-leading expertise

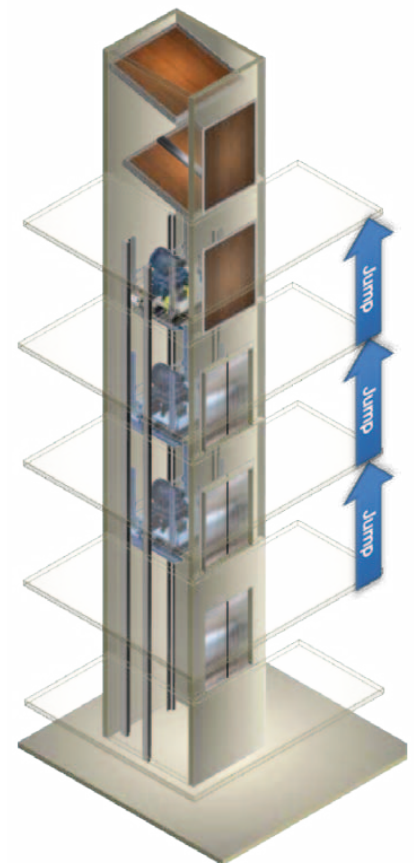
Our project teams will partner with you through each challenge and develop innovative solutions to meet your project's needs. We have a lengthy track record of success in supporting the most iconic and ambitious projects by drawing on our extensive experience and resources.

We are committed to continually building on our strengths through our world-class training program: Otis' Major Project Management University. We train and develop talented project managers around the world who bring a wealth of knowledge and experience to each project along with a genuine commitment to our customers' success.

### Proven processes for streamlined, efficient installation

Our approach is based on detailed planning and accountability throughout the process and constant communication from start to finish. On the jobsite, our teams leverage our standard installation procedures to ensure progress aligned with your schedule.

Otis employees use the safest and most efficient installation techniques, such as scaffold-less installation, traditional jump lifts and self-climbing jump lifts. In fact, Otis developed the self-climbing jump lift – a technique utilizing a hydraulic push-and-pull system to optimize safety, delivery time and logistics.



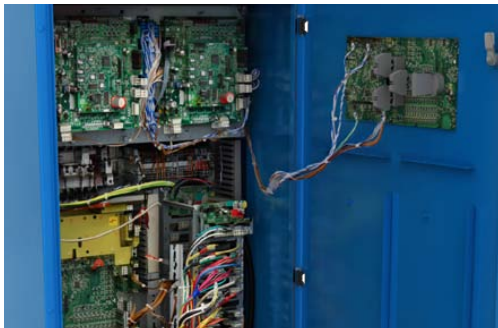
*Self-climbing Jump Lift*

### Benefits of the self-climbing jump lift

- Early installation in the construction process (after the first few floors are complete).
- Eliminates the need for cranes.
- Reduces interruption to other building contractors.
- Accelerates job site logistics since each floor jump can be completed in four hours.
- Safer than conventional methods such as cranes or construction hoists.

## The hallmark of exceptional design and reliability

By incorporating the latest technological advances, the Skyrise system raises the bar for safety, performance and reliability. This elevator system also reflects Otis' constant commitment to quality – from the global engineering expertise integral to the design to the rigorous product testing performed at state-of-the-art research and development facilities worldwide.



### **Engineered for reliability**

The Skyrise control system continuously monitors individual safety devices thousands of times per second. Enhanced diagnostics and setup functions improve system robustness. The system's innovative design also eliminates relays and position tapes from the control system for increased overall reliability. In addition, the controller's CAN communications architecture dramatically simplifies hoistway system wiring and increases data transfer speed.



### **OMMS® maintenance support**

The Otis Maintenance Management System (OMMS) is a predictive and preventative system, ensuring fewer service calls and less downtime than any other plan in the industry.

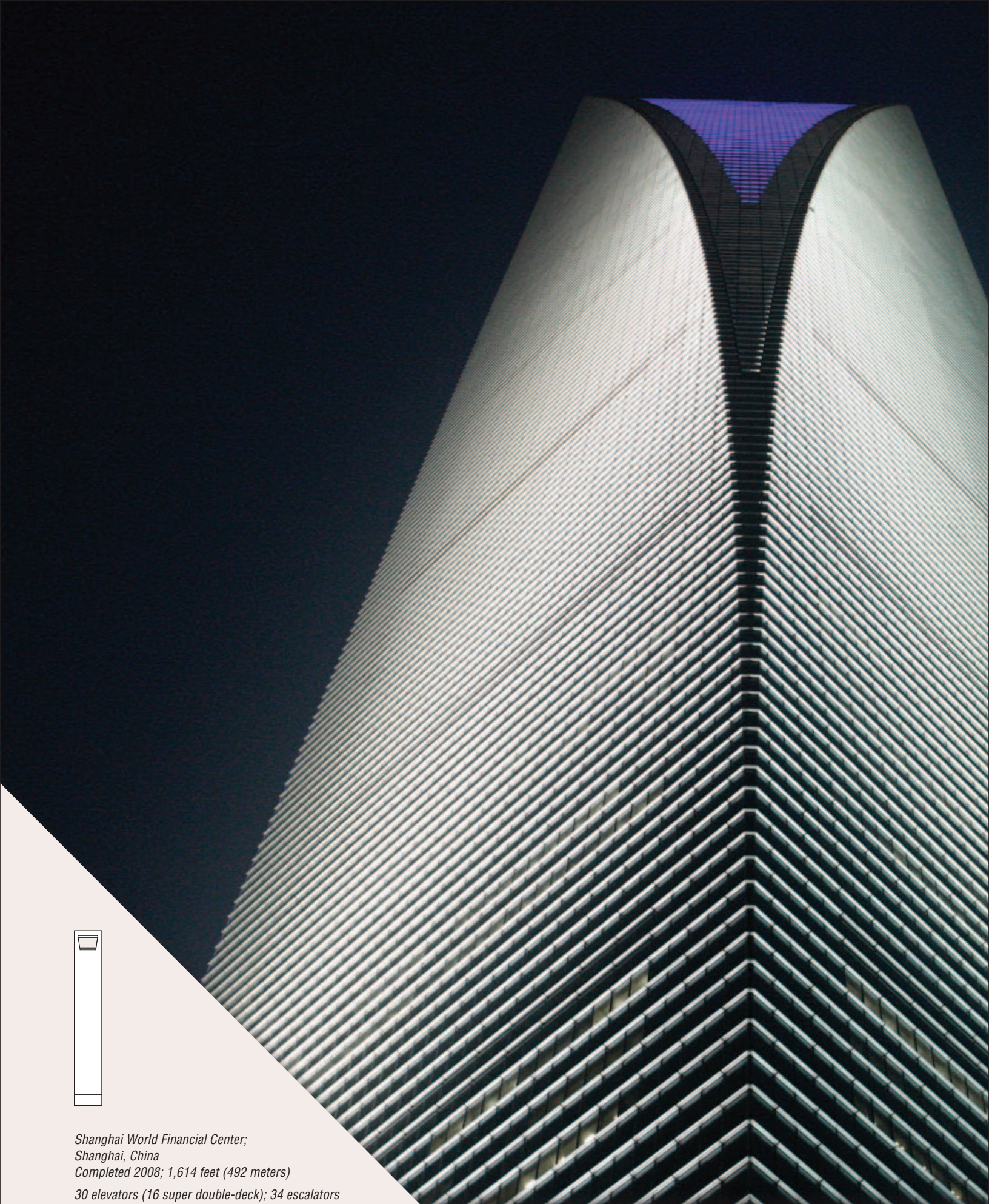


### **Otis Elite<sup>SM</sup> service**

Otis Elite service takes elevator service to a new level. Elite experts dedicated to your elevator provide industry-leading response time because they are able to remotely interact with your elevator. Otis Elite service provides a guaranteed 15-minute response time, real-time updates and unprecedented control.



*Lotte World Tower; Seoul, South Korea  
Will be completed in 2015; 1,823 feet (555 meters)  
30 elevators (2 double-deck); 16 escalators  
Will be the World's Second Tallest Building when completed*



*Shanghai World Financial Center;  
Shanghai, China  
Completed 2008; 1,614 feet (492 meters)  
30 elevators (16 super double-deck); 34 escalators*

## Rising to meet the highest of challenges

Skyrise is Otis' premier high-speed elevator system, designed and engineered for the world's most prestigious skyscrapers and high-rise residential and commercial buildings.

Our high-rise expertise is rooted in innovation and experience. From concept to completion, let us create customized solutions to meet the unique needs of your project.

Type of Deck	Duty Range	Speed Range	Max. Stops	Rise
Single Deck	2100–10,000 lbs 900–4500 kg	500–2000 fpm 2–10 m/s	140	1625 ft 500 m
Double-Deck	2500/2500–5000/5000 lbs 1150/1150–2250/2250 kg	800–2000 fpm 4–10 m/s	140	1300 ft 400 m
Super Double-Deck	3000/3000–4000/4000 lbs 1350/1350–1800/1800 kg	800–2000 fpm 4–10 m/s	140	975 ft 300 m



# Otis

A United Technologies Company

**Otis Elevator Company** is the world's largest manufacturer and maintainer of people-moving products including elevators, escalators and moving walkways.

With headquarters in Farmington, Connecticut, Otis employs 60,000 people globally, offers products and services in more than 200 countries and territories and maintains over 1.8 million elevators and escalators worldwide.

United Technologies Corp., based in Hartford, Connecticut, is a diversified company providing high technology products and services to the building and aerospace industries.

[www.otis.com](http://www.otis.com)