

OTIS

GeN2™

THE WAY TO GREEN™



Let Otis show you
THE WAY TO GREEN
with innovative Gen2™ elevator technology.

Environmentally friendly Gen2 elevators set the new standard for performance, reliability, design flexibility and comfort – while reducing costs and energy usage throughout their lifecycle.

The Gen2 family of solutions:
Smarter technologies that help save space, money, energy and the planet.



Revolutionary flat-belt technology

This proven technology comes in a variety of solutions whether you need elevators for new or existing buildings, or even an upgrade package for your older equipment. Otis' patented polyurethane-coated steel belts enable a more compact, energy-efficient machine, freeing up valuable building space and reducing operating costs.

More compact, more efficient

Thanks to its flexible belts, the Gen2 system has a smaller sheave, which allows for a machine that is 70 percent smaller and up to 50 percent more efficient than conventional geared machines.



The Way to Green gets greener

Energy-conserving ReGen™ drives make Gen2 systems up to 75 percent more energy efficient than conventional systems with non-regenerative drives. And the Gen2 machine and coated steel belts require no additional lubrication, eliminating the need for storage, cleanup and disposal of hazardous waste.

Otis applies **innovative thinking** with green engineering to deliver optimal performance.

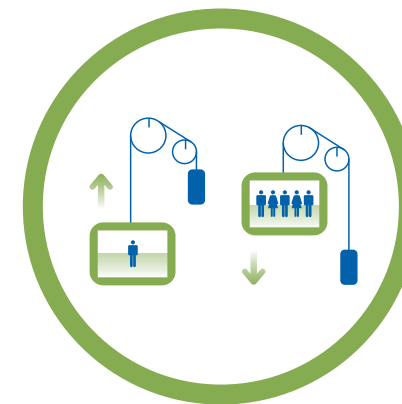
A smarter way to hoist

Otis has integrated high-performance technologies, like flexible coated-steel flat belts, a compact gearless machine, ReGen drives and LED lighting to deliver optimal performance. Simply put, the Gen2 elevator system means green innovation.

Gen2 technology proves The Way to Green can also be the way to optimal performance.

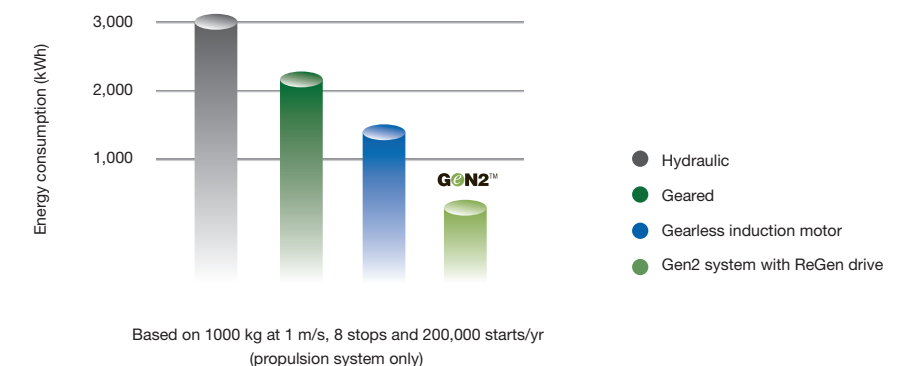
Generating clean power

What does an empty elevator going up have in common with a full elevator going down? An abundance of excess energy that is often wasted as heat. ReGen drives turn this energy into electricity and then feed this captured power back into the building's electric grid for reuse by other building systems such as lighting. Even better, ReGen drives produce "clean power" thanks to low harmonic distortion, which minimizes impact on the building's electrical system and helps protect sensitive equipment.



Reduced energy consumption

Gen2 systems with ReGen drives reduce energy consumption by up to 75 percent.

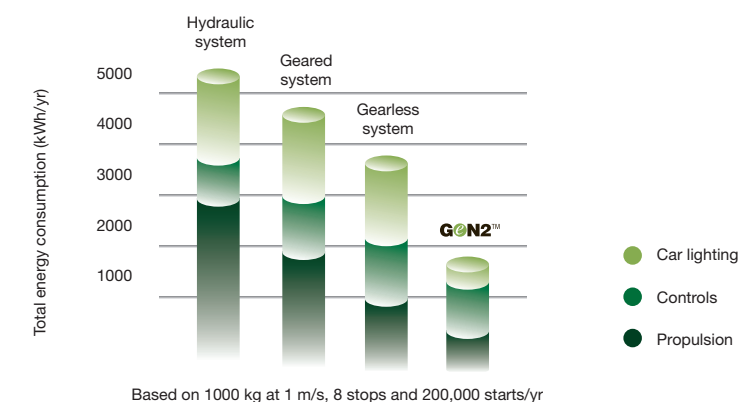


Highly efficient lighting

New LED illumination, offered as standard on Gen2 systems, reduces energy consumption and lasts up to 10 times longer than conventional fluorescent lamps, meaning more energy savings and less downtime. The advanced, automatic switch-off mode – when there's no passenger demand for the elevator – makes LED lighting up to 80 percent more efficient than conventional lighting options.

Efficient overall performance

The Gen2 system combined with a ReGen drive, LED lighting and automatic switch-off maximizes performance efficiency.



Sustainable. Responsible. Envable. Gen2 elevators achieve remarkable performance.

Otis' green technology earns best-in-class ratings for energy efficiency.

Best-in-class performance

When it comes to energy efficiency, Otis is proud to announce that its Gen2 elevators have earned outstanding ratings. This validation of Otis' environmental commitment is based on standards set by the prestigious engineering association Verein Deutscher Ingenieure (VDI).

VDI established its VDI 4707 standards to clearly assess elevator energy performance taking into account factors such as load, speed, frequency of use and travel height – both during travel and standby modes.

An elevator's energy demand is rated using seven different classes from A to G, where A reflects the highest rating possible (the least energy used) and G the lowest rating (the most energy used). VDI measures energy efficiency based on usage category on a scale from 1 to 5, where 1 represents low-use systems and 5 represents high-use elevators.

Measurements taken on Gen2 installations with standard configurations earned Otis the highest efficiency class rating. So when you add it all up – technologically and environmentally – the Gen2 elevator system is clearly at the top of its class.



Gen2 energy efficiency ratings



	Gen2 Systems			
	Comfort	Flex	Premier	Lux
Load (kg)	1,000	630	2,000	1,600
Speed (m/s)	1	1	1.75	2.5
Number of stops	8	5	12	15
Rise (m)	22	14	36	45
Travels per year	120,000	70,000	200,000	300,000
Usage category	2	2	3	4
Travel class	A	A	A	A
Standby class	A	A	B	C
Efficiency class	A	A	A	A



Otis knows **The Way to Green** also has to be the safest and most reliable way.

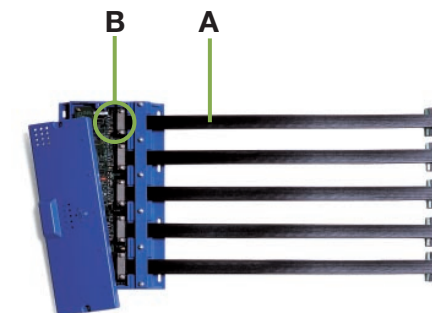
Safety and reliability have been Otis' foremost concerns since Elisha Otis invented the safety elevator in 1852.

Reliable by design, durable by construction. And that means 24/7.

Long-lasting flat belts. Smooth, crowned sheaves. Minimal moving parts in the gearless machine. This all adds up to a dramatic reduction in wear and a remarkable increase in durability and efficiency.

Pulse™ system precision, superior monitoring

The Pulse system's first-of-its-kind technology provides greater safety and peace of mind by continuously monitoring and ensuring the integrity of the Gen2 flat belts. This automated 24/7 belt monitoring represents a significant advance over conventional inspections.



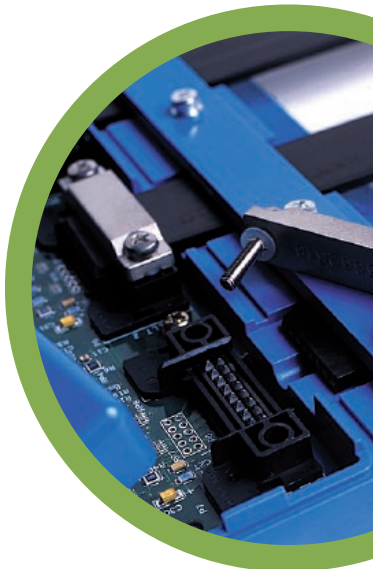
Conventional wire rope inspection relies on time-consuming visual examinations – manually counting surface wire breaks – that take elevators out of service. The Pulse system monitors the electrical resistance of each cord contained in the (A) Gen2 coated-steel belts via (B) conducting pins that penetrate through the belt coating to make electrical contact with each cord. The Pulse monitoring system is installed on all new Gen2 elevators.

Advance notice – Immediate, accurate, automatic reporting

The Pulse system automatically provides precision diagnosis of the need for belt replacement more than a year in advance so that repairs can be managed and scheduled conveniently. On elevators equipped with REM® monitoring service, the system can remotely report belt wear and system faults for rapid response.

Stopping accuracy, passenger safety

The Gen2 system's patented flat belt reduces stretch compared to conventional steel ropes. With its gearless machine and variable-frequency drive, the elevator delivers outstanding stopping accuracy. This helps ensure passengers' safety as they board and exit the elevator.



Gen2 technology offers **superior ride comfort** with **environmentally friendly performance.**

As far as elevator “environments” are concerned, the Gen2 system is unrivaled for passenger comfort.

Superior ride

By taking an in-depth look at the sources of noise and vibration within elevator systems, Otis engineers designed the Gen2 elevator family to be exceptionally quiet and dramatically minimize noise and vibration.

Smooth, quiet operation

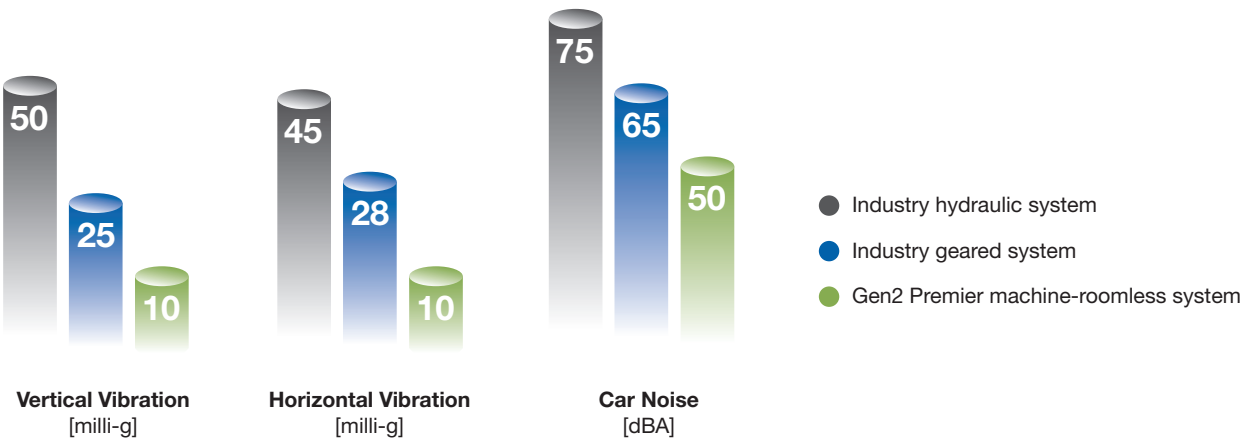
The Gen2 elevator was designed with passenger and tenant comfort in mind. Careful component design and selection enabled Otis to engineer a remarkably smooth and quiet elevator. This means a more comfortable passenger experience as well as the quiet operation that is critical to those tenants located near the elevator system.

Quieter by design

Reduced vibration results in reduced noise. And that results in a quieter, better experience for those riding inside, as well as for those living nearby.



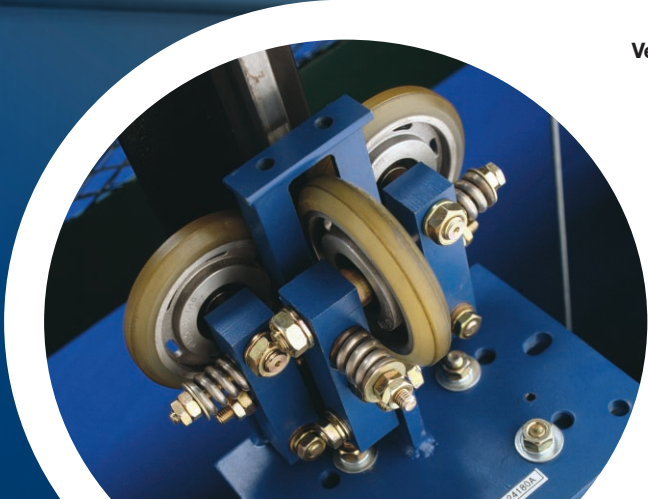
Industry comparison



Improved overall comfort

The innovative design of the Gen2 system’s roller guides* greatly reduces friction to improve efficiency and eliminate the need for additional lubrication. As a result, Gen2 elevators deliver the high level of comfort and the smooth ride you and your customers expect.

*standard on duties over 1,000 kg



Outstanding design flexibility helps save costs and time.

The **Gen2 elevator** range brings **unprecedented** new **freedom** to building design.



Sophisticated design

The innovative belts allowed Otis to redesign the elevator's key components into a compact, integrated unit that eliminates the need for a machine room thereby saving the construction time and expense that would normally be required.

Rapid, cost-effective installation

With all major components located inside the hoistway, the Gen2 system's streamlined installation process - standard worldwide - has minimal impact on building construction or other trades. Otis' highly trained professionals leverage standardized procedures to ensure each installation task is performed safely and efficiently. The result is a comprehensive solution that delivers outstanding speed and ease of installation.



Versatile Gen2 technology

The Gen2 family of elevators offers outstanding performance, innovative technology and the flexibility you want to meet the needs of your passengers and projects. Compact design and integrated components optimize your space, while proven Gen2 technology delivers energy-efficient performance needed for cost-effective operation. Whether for your residential or commercial project, Otis' Gen2 offerings prove that The Way to Green is also the way to save time and money.

Designed, manufactured and serviced to minimize environmental impact.

Otis follows The Way to Green throughout your product's lifecycle.

Gen2 elevators are the smart choice for green building initiatives



Design

Thanks to innovative engineering, Gen2 systems are designed to minimize carbon footprint by optimizing the size, materials and weight of components, all while incorporating the latest energy-saving technologies such as ReGen drives and LED lighting options. Gen2 systems are also designed for an efficient shipping process with reduced packaging.

Manufacturing

Gen2 elevators are manufactured at facilities strategically located near the largest markets for short, efficient trips to customers' sites. And among our Gen2 manufacturing facilities, we have a green solar-powered factory in Madrid, Spain, and the Otis Elevator Company TEDA Center in Tianjin, China, which earned the U.S. Green Building Council's LEED Gold-level certification.

Installation

It's quick and efficient. With a standard and streamlined installation process, Gen2 elevators do not require scaffolds, thereby reducing installation material requirements and excess scrap materials. Equally important, installation tools are also standardized and can be used for all Gen2 products.

Performance

With most of an elevator's environmental impact stemming from daily operations, energy-efficient performance is essential. Gen2 elevators with ReGen drives reduce energy consumption by up to 75 percent compared to conventional systems with non-regenerative drives. Energy savings are enhanced with the inclusion of long-lasting LED lighting and automatic switch-off mode.

Maintenance

Otis is committed to ensuring optimal equipment performance throughout each product's lifecycle. Innovative technologies like the Pulse and REM systems and our customer focused Otis Elite™ service program let Otis engineers precisely identify or anticipate possible issues. And when our mechanics arrive at customer sites, they are prepared to make repairs quickly and efficiently, and in the greenest way possible – from recycling to safe waste removal to environmentally friendly cleaners.

End-of-life Recycling

Gen2 systems are designed for recyclability. In fact, more than 95 percent of the materials used in Gen2 systems are recyclable. This includes the coated-steel flat belts that enable Gen2 technology to achieve such environmentally friendly performance. Otis has partnered with suppliers to organize recycling programs specifically for these belts.

Environmentally friendly elevators for a wide range of building types and applications worldwide.

Innovative technology, flexible solutions

With its environmental benefits and design flexibility, the award-winning Gen2 product family continues to be selected for countless projects around the world from small apartment buildings to leading landmarks. And, Otis is always striving to make these Gen2 elevators even greener. From energy-conserving ReGen drives to LED lighting, the Gen2 product line incorporates the latest technologies to further maximize efficiency and performance.

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Green technology for a green future

	Flat Belt	Pulse	Machine	ReGen Drive	Rollers	LED Lighting	Compass
							
							
							
							
							
							
							
Energy Savings	●		●	●	●	●	●
Environmental Protection	●	●	●	●	●	●	●
Ride Comfort	●		●	●	●		
Safety and Reliability	●	●	●	●	●	●	



Flexible coated steel belts
For outstanding design flexibility



Pulse belt monitoring system
Greater assurance with continuous, accurate monitoring and reporting



Compact gearless machine
70% smaller and up to 50% more efficient



Low friction rollers
For superior ride and improved overall comfort



LED lighting
Lasts 10 times longer with up to 80% more efficiency



ReGen drive
Clean, green and up to 75% more energy-efficient



Compass™ system
Optional system for highly efficient and personalized elevator service

Gen2 Comfort takes ride comfort, flexibility and efficiency to a whole new level for the **low-rise residential and commercial market**.

GeN2™ Comfort

The Gen2 Comfort system provides a highly efficient and cost-effective solution ideally suited for residential and commercial markets, offering tremendous savings in space and energy consumption while ensuring outstanding passenger comfort.

The Gen2 Comfort system features a compact, machine-roomless design, resulting in greater freedom of design for architects and increased rentable space for building owners. And thanks to the Gen2 Comfort system’s energy-efficient machine, ReGen drive and LED Lighting, developers and owners can manage the building in a more sustainable and economical way. At the same time, residents enjoy the quiet, smooth ride and simple but elegant elevator aesthetics.

Gen2 Comfort elevator – Specifications

Load capacity	320 – 1,000 kg
Passenger capacity	4 – 13
Speed	1.0 m/s
Maximum rise	45 m
Maximum number of stops	15



Unrivaled ride quality and state-of-the-art engineering combine to make the Gen2 Premier system an ideal choice for **upscale residential and commercial properties**.

GeN2™ Premier

Passengers enjoy superior ride quality - quiet, smooth and comfortable - thanks to the unique combination of Otis’ flat belt technology, low-friction rollers, a compact, gearless machine and a ReGen drive. The Gen2 Premier system also offers a high acceleration rate, fast and quiet door systems and outstanding stopping accuracy for safe, efficient transportation.

Building owners can further enhance travel efficiency and passenger comfort by incorporating the Compass destination management system. With the Compass system, passengers receive personalized elevator assignments based on their destinations, and benefit from reduced wait and travel flow times.

Gen2 Premier elevator – Specifications

Load capacity	630 – 2,500 kg
Passenger capacity	8 – 33
Speed	2.5 m/s
Maximum rise	120 m
Maximum number of stops	24



Flexible configurations, capacities and aesthetics make the Gen2 Flex the clear choice when **replacing or installing a new elevator in an existing building.**

GeN2™ Flex

Flexibility is absolutely critical when installing a new elevator system in an existing building. The Gen2 Flex system provides a full spectrum of flexible, dynamic and environmentally friendly solutions designed to maximize passenger capacity and adapt to virtually every building design.

The benefits of the Gen2 Flex system include: variable car dimensions (from 2 to 8 passengers), a variety of counterweight configurations to meet design needs and a range of door options – all fitting in a compact design. In addition, installing a Gen2 Flex system increases the overall value of the property, giving residents a high level of ride comfort and raising the aesthetic value with a variety of smart looks. The Gen2 Flex definitely lives up to its name.

Gen2 Flex elevator – Specifications

Load capacity	180 – 630 kg
Passenger capacity	2 – 8
Speed	1.0 m/s
Maximum rise	45 m
Maximum number of stops	16



Innovative and intelligent, the Gen2 Lux system raises the bar for ride quality and performance in **mid- to high-rise residential and commercial properties.**

GeN2™ Lux

Intelligently engineered with cutting-edge technologies, the Gen2 Lux system takes environmental friendliness and passenger comfort to new heights. The Gen2 Lux system is ideally suited for mid-rise to high-rise residential and commercial markets.

Wrapped in innovation, the Gen2 Lux system delivers superior ride quality and performance through technologies like low-friction rollers, a highly efficient and compact gearless machine and an energy-conserving ReGen drive. Passengers enjoy safe and efficient travel with high acceleration coupled with fast and quiet door systems. The Gen2 Lux system achieves all this while offering a compact design that requires only a mini-machine room, saving space and offering greater design flexibility. With the Gen2 Lux system, building owners also have the option of incorporating the Compass destination management system for personalized passenger travel with optimal efficiency.

Gen2 Lux elevator – Specifications

Load capacity	800 – 1600 kg
Passenger capacity	10 – 21
Speed	2.5 m/s
Maximum rise	150 m
Maximum number of stops	32



The Way to Green is about our commitment to continually moving our company and our customers forward.

At Otis, The Way to Green begins with green thinking. On a global scale.



We encourage and enable our more than 60,000 employees worldwide to address the future positively and proactively. We recognize that The Way to Green is an ongoing effort. But with the commitment of our people and our resources around the world, we know we can move our company, our suppliers and our customers closer to a shared goal of using greener products, services and solutions. Otis invites you to join us on this continuous journey on The Way to Green.

Join Otis on our journey to **THE WAY TO GREEN**

It starts with a commitment to environmentally friendly solutions: Innovative products and services that reduce cost and energy usage.

The Gen2 advantage. For our environment. For your site.

The world keeps moving forward. And so do we. Otis leverages smarter technologies and intelligent engineering to continuously enhance our signature solutions, like our flagship Gen2 elevator system. Our award-winning Gen2 elevator family reflects our determination to satisfy customers with both state-of-the-art energy efficiency and world-class ride quality and comfort.



Global actions. Local solutions.

The Way to Green is our commitment to continuous improvement – reducing energy usage and enhancing performance. So, it's not surprising that Otis elevators, escalators and moving walkways are a part of many of the most well-recognized and significant buildings across the globe. Otis delivers environmentally friendly solutions for every building need today: from malls to metro stations, from apartments to skyscrapers, from comprehensive maintenance programs to equipment upgrades and enhancements. After all, we know that The Way to Green is the smart way to help our customers save money, energy and the planet.



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