

Dedicated to People Flow™



FULL ESCALATOR MODERNIZATION

KONE EcoMod™

KONE EcoMod – It's Wise to Modernize

It's simple wisdom – smooth people flow starts with reliable escalators. When your older escalator is no longer dependable, it's time to consider EcoMod, KONE's complete modernization solution. Older escalators typically don't meet today's higher standards for safety and energy-efficiency. The innovative technology of KONE's EcoMod saves energy and lowers costs.

Your escalators are due for modernization if:

- You have increased downtime, with escalators frequently out of service.
- You have higher maintenance costs due to constant ongoing repairs.
- Passengers note old-fashioned appearance or poor ride comfort.
- Your older escalator does not meet current codes and regulations.



Keeping passengers safer

Every day, over 245 million riders travel on escalators.* Passengers trust escalators to carry them safely and smoothly on their way. Daily wear and tear takes its toll on the mechanical components of older escalators. Even with regular maintenance, step failure can occur and could cause serious injury. If your older escalator needs frequent repairs, the safety of your passengers could be at risk. It's time to consider full modernization.

KONE EcoMod is the safe choice.

- Keeps people moving safely during installation.
- Modern equipment ensures safe, reliable performance.
- Improved safety features provide a secure ride.
- Newer equipment is easier to maintain safely.

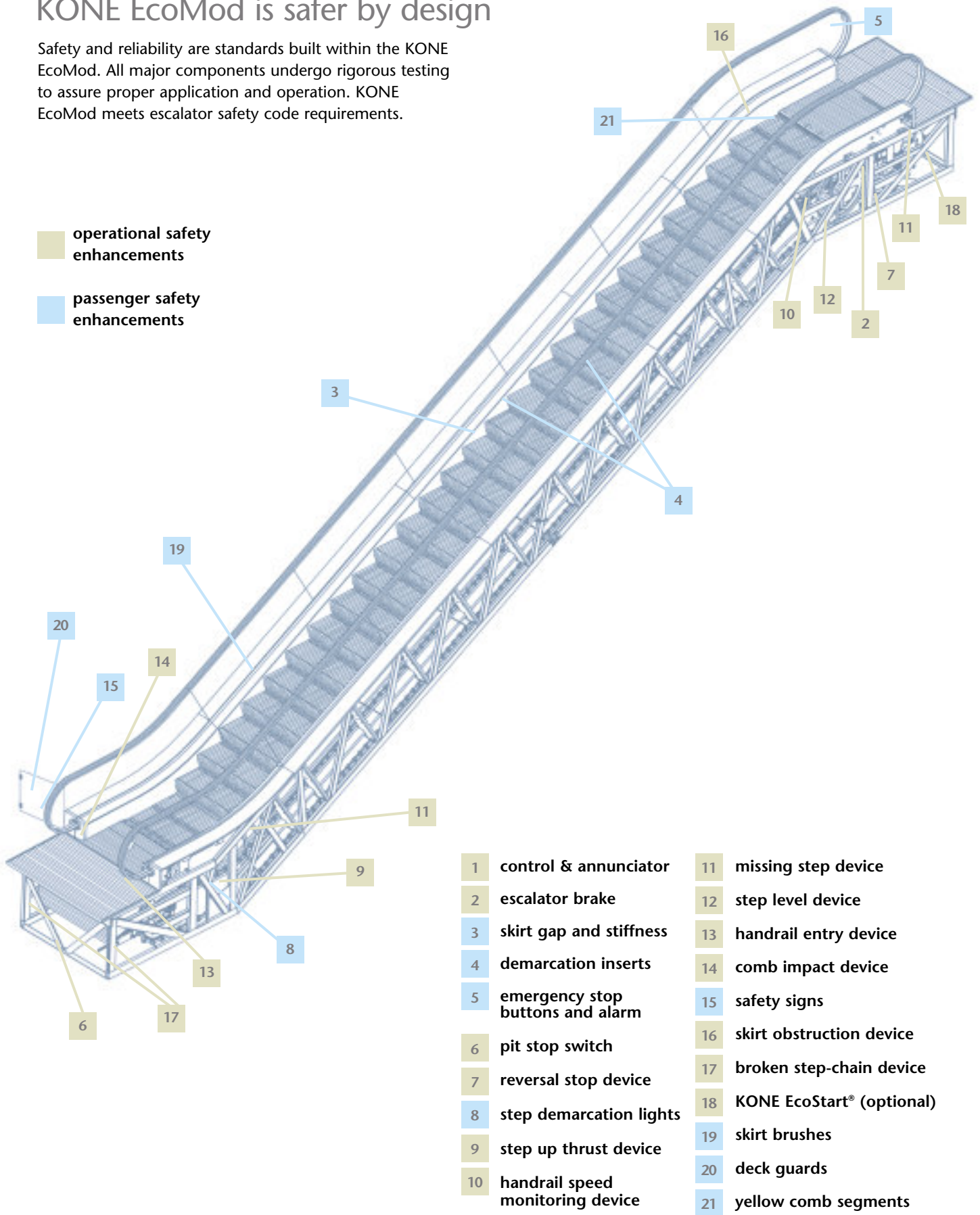
** March 2007, National Elevator Industry, Inc., Elevator Escalator Safety Foundation*

KONE EcoMod is safer by design

Safety and reliability are standards built within the KONE EcoMod. All major components undergo rigorous testing to assure proper application and operation. KONE EcoMod meets escalator safety code requirements.

operational safety enhancements

passenger safety enhancements



- | | | | |
|----|----------------------------------|----|---------------------------|
| 1 | control & annunciator | 11 | missing step device |
| 2 | escalator brake | 12 | step level device |
| 3 | skirt gap and stiffness | 13 | handrail entry device |
| 4 | demarkation inserts | 14 | comb impact device |
| 5 | emergency stop buttons and alarm | 15 | safety signs |
| 6 | pit stop switch | 16 | skirt obstruction device |
| 7 | reversal stop device | 17 | broken step-chain device |
| 8 | step demarcation lights | 18 | KONE EcoStart® (optional) |
| 9 | step up thrust device | 19 | skirt brushes |
| 10 | handrail speed monitoring device | 20 | deck guards |
| | | 21 | yellow comb segments |



Count on KONE technology

You can trust the KONE EcoMod solution to have the latest in escalator technology, quality components and dependable, proven high-performance. In comparison to your existing equipment, KONE EcoMod features ensure:

- Less wear and tear on moving parts.
- Reduced overall energy usage.
- Lower operating costs.
- Reduces motor temperature.
- Maintains normal RPM.
- Protects the environment by reducing emissions.
- Qualifies for utility rebates and incentives (consult your local provider for details).

LATEST TECHNOLOGY

FEATURES	BENEFITS
New newel ends with roller bearing assembly.	Modifications reduce handrail drag, extending handrail life and reducing downtime.
Floating lower reversing station with precision cast track system.	Provides smooth operating step band and quiet operation.
Unique, positive-type, free-floating step guidance system.	Delivers a smoother ride and enhances passenger safety.
Robust track design for consistent Performance Index, narrow step-to-skirt gap.	Meets the Escalator Step/Skirt without skirt brushes and reduces exposure to liability.
A sophisticated microprocessor-based controller.	Constantly monitors speed, direction, safety status and other key operating parameters, enhancing safety and simple diagnostics.
A closed-loop permanent-magnet brake compensates for load, continually adjusting.	Ensures smooth, constant deceleration improving passenger safety.
One direct-drive machine that powers both steps and handrails.	Improves the ride and passenger safety by providing a fully synchronized handrail and step movement.



A solution that makes sense

KONE's EcoMod is a complete modernization solution that gives you brand new escalator technology, without major general contractor costs or disruption to passenger flow. With no need to demolish floors, roofs or building façades, you'll greatly reduce the need for outside contractor work, resulting in significant savings.

With an entire new installation, extensive reconstruction requires that all escalators be shut down. With a KONE EcoMod modernization, one or more escalators will always be available for passengers. EcoMod can be used to modernize both KONE escalators and other manufacturers' equipment.



Full Replacement



EcoMod Installation

Disadvantages of a traditional modernization

- Lengthy process with extensive construction.
- Substantial general contractor costs for work by others.
- Additional time for removal and prep of structural and related elements.
- Complete escalator shutdown during construction.
- Considerable inconvenience to people flow.

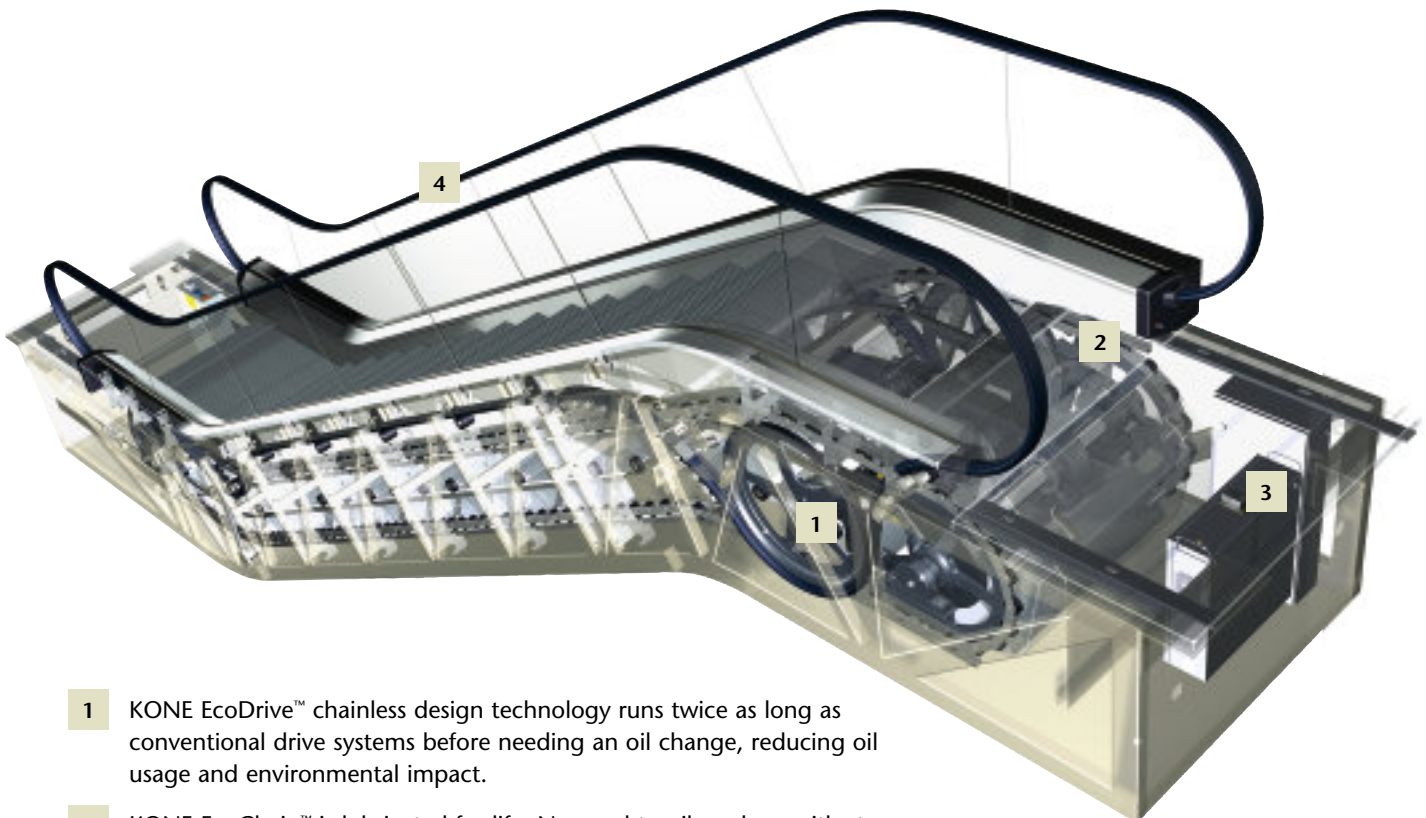
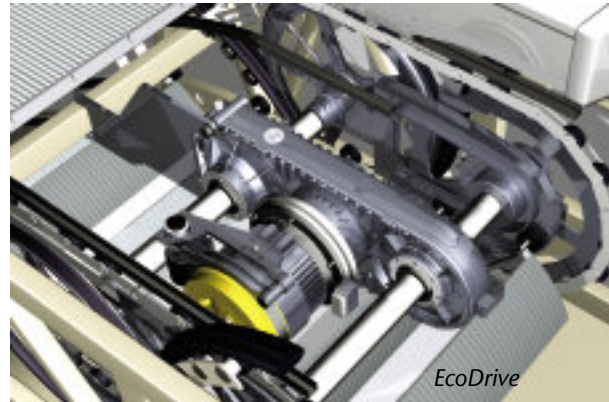
Advantages of an EcoMod installation

- Quicker, cleaner and less costly than a new installation.
- Modifying the existing truss means no major structural modifications.
- Reuse of existing cladding and decking for significant cost-savings.
- One or more escalators always available to passengers.
- Increased building value and simplified budgeting process.

Eco-efficient™ solutions for more sustainable operations

KONE is dedicated to developing innovations that are environmentally efficient and ensure smooth people flow. Our energy-saving technologies keep costs low, reduce emissions, eliminate waste and help buildings meet carbon-neutral footprint targets.

KONE EcoMod is better for the environment, and passengers benefit, too.



- 1 KONE EcoDrive™ chainless design technology runs twice as long as conventional drive systems before needing an oil change, reducing oil usage and environmental impact.
- 2 KONE EcoChain™ is lubricated for life. No need to oil or clean with strong solvents means cleaner, safer operation.
- 3 KONE EcoStart option can save from 20%–40% in utility costs annually. Passengers benefit from the smooth soft-start technology.
- 4 KONE EcoMod's reuse of the existing truss and retention of architectural and aesthetic elements avoid unnecessary waste, and help reduce the building's carbon footprint.

The EcoMod solution

CHALLENGE: Update 25 escalators in one of the world's busiest airports with limited interference to passenger traffic.

SOLUTION: "The KONE EcoMod full replacement system has significantly reduced the inconvenience to our customers under very demanding conditions." *Art Andros, Director of Development, O'Hare International Airport*

CHALLENGE: Replace old and unreliable equipment while allowing the casino to remain open.

SOLUTION: "We are going to install more EcoMods at Trump Plaza. We think it's such a great product that we are replacing four more old escalators next year and two more the year after that." *Joe Polizano, Vice President of Design and Construction, Trump Plaza*

CHALLENGE: Replace aging escalators and preserve sophisticated aesthetic décor in a high-end shopping mall.

SOLUTION: "We didn't have to remove handrail glass, accent stone or other architectural features. The property didn't have to be modified to fit the new escalators, because the new EcoMod escalators were designed to fit the property." *Chacko Sleeba, Property Manager, Houston Galleria Mall*

CHALLENGE: Replace high energy-consuming escalators in a busy airport without interrupting passenger traffic.

SOLUTION: "We selected KONE to replace our escalators for two key reasons: the exceptional value that they provide and the minor disruption of service during construction. Disruption of service was most critical for us in an airport with busy-passenger demands." *Bob Kingston, Assistant Director, Department of Aviation – Facilities / Clark County McCarran International Airport, Las Vegas, Nevada*



To reduce our carbon footprint, KONE has begun using QR – or Quick Response – codes, which are an environmentally-friendly alternative to printed materials.

QR – or Quick Response – codes are a quick and easy way to get to a webpage without having to type in a long URL address. Simply scan this QR code with your Smartphone and you'll be taken to the video of how the KONE EcoMod full escalator replacement solution has benefited one of the busiest airports in the U.S. Or just type in this shortened URL link – bit.ly/ecomod-video – to watch the video in your web browser. If you'd prefer a CD, please contact us at us.communications@kone.com and we'll be happy to send you one.



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