

Escalators Go Eco-efficient

Dedicated to People Flow™



KONE is the first in the industry to offer an eco-efficient escalator, which combines a highly-efficient drive system with a compact drive to achieve new levels in energy efficiency, space saving, reliability and aesthetics.

Many of the solutions described here are available as easy-to-install retrofit packages.

1 Mechanical Systems

EcoDrive™

- Highly-efficient planetary gear with spur gear for direct connections to main shaft and handrail drive shaft
- Extended oil change interval of 30,000 hours (almost twice as long as a conventional drive system)
- Gear efficiency of 96% (conventional worm gear 87%)
- Energy savings: 950 kWh/year*
- Carbon footprint reduction: 1014 lb (460 kg) CO2/year**

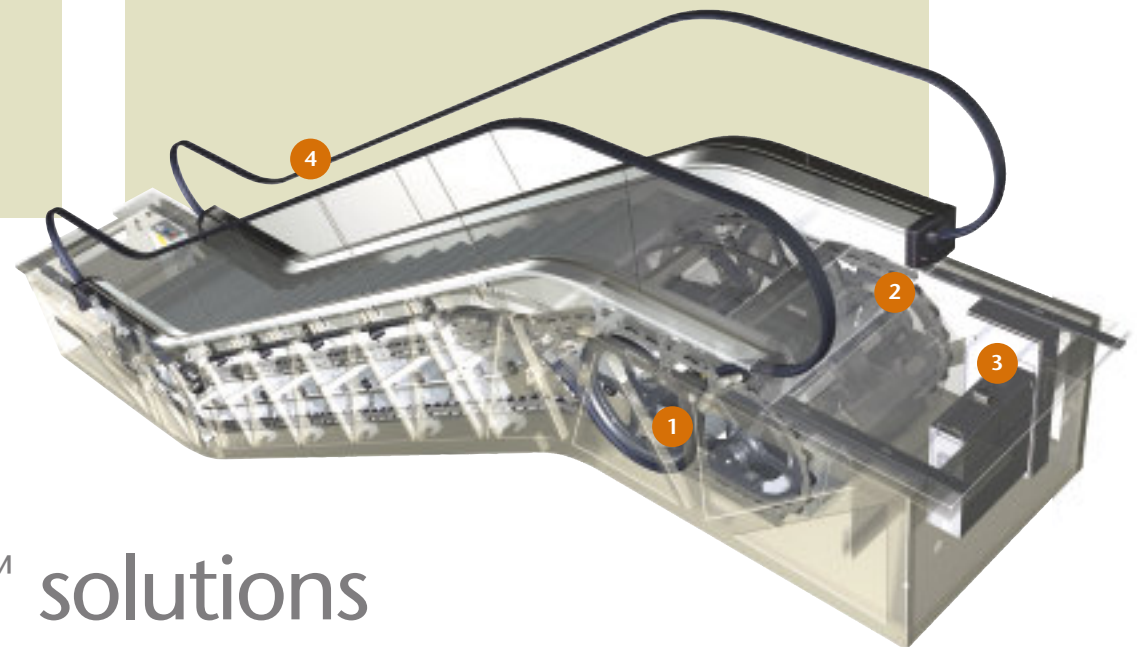
Lubrication-free Step Chain

- Permanent lubricated chain bushings that do not require extra lubrication with oil
- No oil consumption, the truss stays oil-free
- Reduced wear of chain links and bushings
- Reduced fire risk
- Average oil savings:
 - Commercial escalator: .26-.52 gallons/month (1-2 litres/month)
 - Transit escalator: 1.3 gallons/month (5 litres/month)

2 Energy Management

Digital EcoStart®

- Provides energy savings with no passenger, light passenger and moderate passenger loading conditions
- No abrupt switching back and forth between WYE and DELTA modes
- Continuously adjusts the motor terminal voltage to an appropriate level required for passenger loading conditions
- Provides a soft start function so no additional soft starter is required
- Energy savings: up to 40%



OPTIONS FOR ESCALATORS

KONE Eco-efficient™ solutions



U.S. Operations Center
 One KONE Court
 Moline, Illinois 61265
 1-800-956-KONE (5663)
www.kone.com

Canadian Operations Center
 80 Horner Avenue
 Toronto, Ontario M8Z 4X8
 1-416-252-6151
www.kone.com

KONE Mexico, S.A. de C.V.
 Clavel 227
 Colonia Atlampa
 Mexico City, D.F. 06450
 +52.55.1946.0100
www.kone.com

For the latest product information
 and interactive design tools, visit
www.kone.com

KONE Inc. reserves the right to alter design
 and specifications without prior notice. These
 products are examples of current eco-efficient
 solutions and developments for future use.

We continue to be forward thinkers, providing
 eco-efficient solutions for today and tomorrow.

KONE is a registered trademark of KONE Inc.

Dedicated to People Flow, EcoDrive,
 Eco-efficient and EcoStart are trademarks of
 KONE Inc.

"USGBC" and related logo is a trademark
 owned by the U.S. Green Building Council
 and is used by permission.



©2008 KONE Inc.
 SF2871
 Printed in U.S.A.

3 Variable Torque Brake with Closed Loop Control

- Optimizes passenger safety by providing consistent stopping rates regardless of escalator load, travel direction, brake wear or environmental conditions
- Extends service intervals due to reduced applied brake torque which results in minimized brake pad wear
- Band type brake enables a smaller operating coil with reduced power consumption
- Simplified service with one adjustment setting for all escalator rises and widths



4 Aesthetic Features

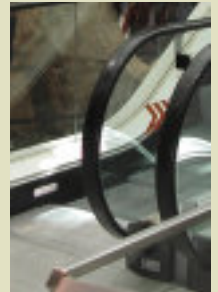
Spot LED Skirt Lighting

- LED skirt lighting
- Extended service life – up to 50,000 hours
- Energy savings: 80%, 1960 kWh/year compared with conventional lights
- Carbon footprint reduction: 2094 lb (950 kg) CO2/year**



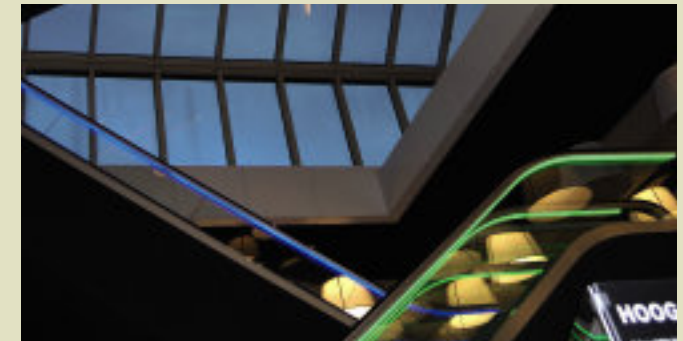
LED Comb Lighting

- LED comb lights instead of incandescent
- Extended service life – up to 50,000 hours
- Energy savings: 80% compared with conventional lights
- Carbon footprint reduction: 308 lb (140 kg) CO2/year**



Fiber Optics Handrail

- Lighting installed below the handrails
- Fiber optics tube is maintenance free
- No heat generated from the illuminated fiber optics tube
- Energy savings: 70% compared with conventional lights
- Carbon footprint reduction: 4850 lb (2200 kg) CO2/year**
- *This technology is still being developed and will be available in future KONE offerings*



*Values are based on theoretical calculations concerning a reference escalator: 7.5 KW / worm gear / 39.37 in. (1000 mm) step width / 14.76 ft (4.5 m) high rise / 30° / 1.6 ft/s (0.5 m/s) / continuous mode / 220 lb (100 kg) nominal step load / load profile: 2.5h - 0%, 8h - 25%, 2h - 50%, 1h - 75%, 0.5h - 100% / operation time: 14 h/day, 6 days/week, 52 weeks/year.

**Emission coefficient equal to 17 oz (485 g) CO2/kWh based on the EU electrical energy mix.