

*Dedicated to People Flow™*



EFFICIENT PEOPLE FLOW™ FOR DEMANDING ENVIRONMENTS

# KONE TransitMaster™ 140

# Your trusted escalator partner



With over 100 years of experience and a strong track record in safety, KONE is your trusted partner, dedicated to ensuring smooth and safe People Flow™ in today's highly demanding public environments. KONE's reliable escalator and autowalk solutions use proven technology and highly durable components to meet the heavy usage demands of infrastructure environments worldwide.

The KONE TransitMaster™ 140 escalator is designed for use in demanding locations with high traffic flow and round-the-clock operation. These include metro stations and other busy transport hubs, where high reliability, long equipment lifetime, and easy maintenance are key requirements.

## 3 REASONS TO CHOOSE THE KONE TransitMaster™ 140

### 1 High quality design for maximum reliability and availability

- **Proven, reliable design that provides**, that provides safe, uninterrupted people flow and maximum availability in high-traffic environments
- **All-round safety** with code-compliance and other features that enable safe and continuous passenger circulation
- **Flexibility and maintainability** for maximum availability



## THE KONE TransitMaster™ 140

- Horizontal steps: 4/4
- Inclination: 30°
- Step width: 1000 mm
- Radius: 2.7/2.0 and 3.6/2.0
- Balustrade height: 1000 mm
- Balustrade type: Brushed stainless steel solid inclined
- Speed: 0.6 m/s (0.5 m/s optional)
- Step chain: Outside roller chains (Ø 100 x 25 mm)
- Operational environment: Indoor, full outdoor
- Duty cycle: 20–24 /hours/day

## 2 Peace of mind with proven safety technology

- **Four-step horizontal** section at the top and bottom of the escalator makes entry and exit smooth and safe
- **Audible alarms and traffic signalization** provide clear guidance on escalator travel direction
- **Safety features** that exceed code requirements

## 3 Energy-efficient people flow that keeps your building moving

- **Smart operational modes** and an efficient inverter optimize energy consumption under different load conditions
- **Energy-efficient handrail drive design** reduces power consumption by minimizing the amount of friction generated by the rotating handrail
- **Sustainable materials and packaging**, with about 80% of the metals used to make the escalator being recyclable and cardboard originating from sustainable forests used for component packaging

# High quality design

FOR MAXIMUM RELIABILITY AND AVAILABILITY

Escalators are a key transportation method for busy transit hubs such as metro stations, operating for long duty cycles and serving thousands of passengers a day. Ensuring smooth, safe people flow in these demanding conditions requires an escalator solution that is reliable, easy to maintain, and which provides safe transportation at all times and in all environmental conditions, both indoors and outdoors. The KONE TransitMaster 140 is designed to meet all these requirements.

**1 Proven design you can count on**  
Based on our proven, market-leading technology, every aspect of the KONE TransitMaster 140 has been designed to provide smooth, safe people flow and maximum availability in high-traffic environments.

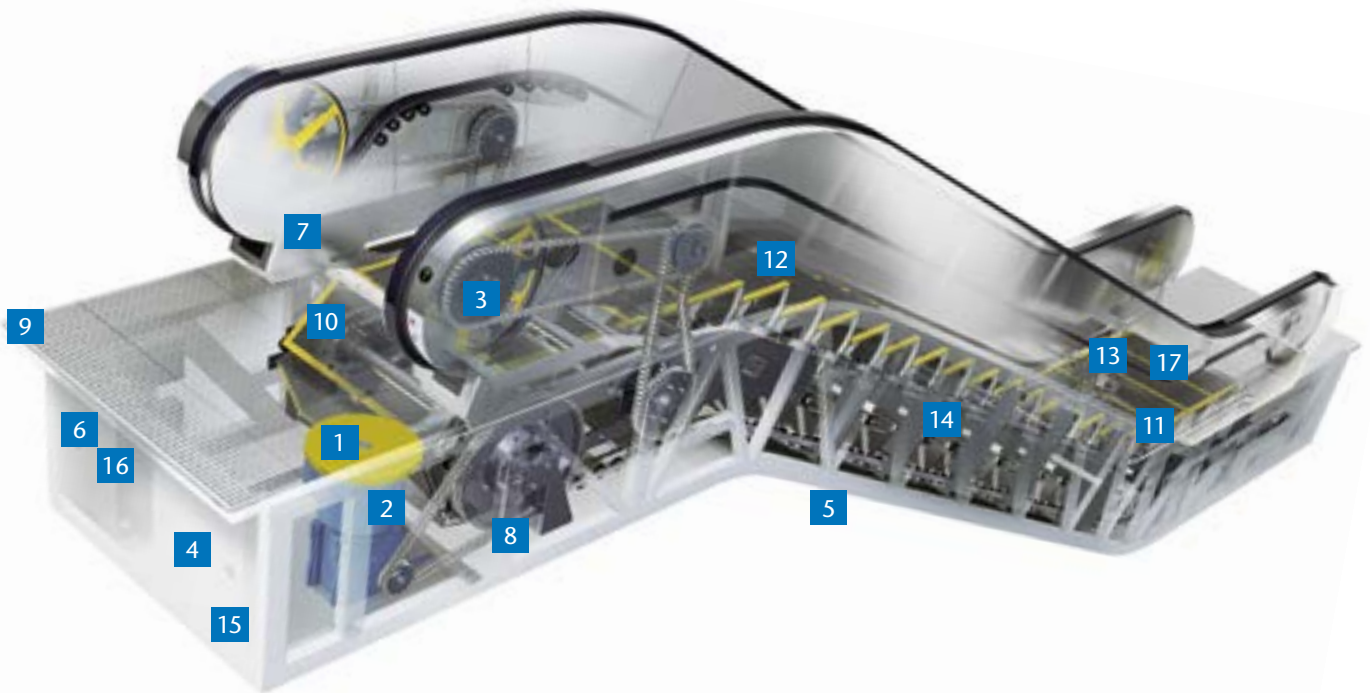
**2 All-round safety**  
The TransitMaster 140 complies with the latest safety codes and regulations, and includes visual enhancements and other features that ensure safe passenger circulation in all conditions.

**3 Flexibility and maintainability**  
The mechanical design and our proven, efficient processes ensure that installation and maintenance time is kept to a minimum. The escalator features easily accessible major components and adjustable building interfaces.



## DESIGNED FOR DURABILITY

The available maintenance periods associated with a busy metro station have been taken into account during the design process. This has resulted in the specification of components and features that have a high life expectancy and which minimal maintenance interventions in order to provide maximum reliability and availability.



- 1** Externally located drive and brakes for easy maintenance access
- 2** Auxiliary brake, required by GB 16899-2011
- 3** Handrail drive system incorporates wheels in newels to reduce friction, save energy, and provide constant drive
- 4** PCB control system to maximize availability
- 5** Truss deflection 1:1500
- 6** Eco-efficient inverter to provide stand-by speed
- 7** Energy-efficient LED comb lighting
- 8** Dust and drip trays collect debris, thereby reducing maintenance time
- 9** Adjustable building interface areas (access covers) that can accommodate variations in floor levels and ensure quick, trouble-free installation
- 10** Clear yellow step demarcation
- 11** Skirt switches in transition curves to monitor skirting deflection
- 12** Smooth transition from incline to landing through use of large transition radii
- 13** Four horizontal steps to allow users to steady themselves prior to entry and exit for the transition curves / 4 horizontal steps
- 14** KONE E-link remote monitoring system
- 15** Cooling and heating packages available to suit local environmental conditions
- 16** Truss upper head designed to accommodate fixed control cabinet
- 17** Step design incorporating spring-clip locking design

# Peace of mind

WITH PROVEN SAFETY TECHNOLOGY

When you choose KONE, you choose peace of mind. Safety is the starting point for every KONE solution and the cornerstone of our design philosophy. Our escalators meet and exceed all applicable safety standards, codes, and regulations to support the highest levels of safety at every critical stage – installation, operation, and maintenance. Every KONE solution is rigorously tested and piloted to validate its safety.

We combine innovative technology and proven features to make our escalators the benchmark for safety.

The KONE TransitMaster™ 140 has been designed to not only maximize passenger safety when in operation, but also to enable easy and consistent inspection and maintenance. This helps to maintain the highest level of safety for the entire operational lifespan of the product.

## **Standards-compliant manufacturing**

All KONE manufacturing units are ISO 14001 certified and meet all relevant escalator industry standards and requirements. KONE escalators comply with the GB 16899-2011 standard, as well as local codes that incorporate additional requirements for escalator safety.





## 1 Passenger safety features

- Handrail inlet brush and single or double brush guards prevent objects becoming trapped in the handrail or step band
- Four-step horizontal section at the top and bottom of the escalator makes entry and exit smooth and safe
- Skirt switches automatically stop the escalator if anything pushes against the skirting at the transition curves – the most common place that objects get trapped
- Step assembly with additional spring clip locking mechanism

## 2 Mechanical safety features

- Truss design discourages dust and oil accumulation
- Auxiliary brake for increased safety
- Halogen-free wiring
- Improved truss deflection 1:1500
- Motor position monitor that detects drive movement
- Motor fly wheel cover monitoring that prevents running with exposed rotating flywheel

## 3 Clear guidance

- Traffic signalization and step demarcations provide extra visual guidance for passengers
- Audible alarm for travel direction

\* For a complete list of standard and optional safety features, please contact your local KONE sales representative.

# People flow with energy-efficiency

THAT KEEPS YOUR BUILDING MOVING

At KONE we are renowned for our eco-efficient people flow solutions and our in-depth knowledge of how people move around in busy and demanding environments such as metro stations and other transport hubs. As well as facilitating smooth people flow, our escalator solutions are also designed to help customers achieve their sustainability objectives. The KONE TransitMaster 140™ incorporates energy-saving features that will not only help you reduce the running costs of your equipment, but also the environmental impact of your operations. The tools we have developed to estimate the energy consumption of our solutions are especially helpful for customers working towards green building certifications such as LEED.

## 1 Smart operational modes

Smart operational modes and an efficient inverter save energy by slowing down the escalator when traffic is low. For example, when an escalator is empty, energy consumption is further reduced with KONE's smart star-delta operational mode, which regulates the current needed for different types of load situations.

## 2 Eco-efficient handrail drive design

The handrail is fitted with rotating wheels that reduce power consumption further by minimizing the amount of friction generated. In addition, the lubricant-free drive chain requires no oil and also reduces maintenance time.

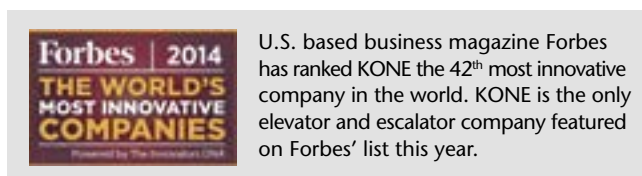
## 3 Sustainable materials and packaging

An escalator consists mostly of metals, and about 80% of this material can be recycled and reused. For the packing and delivery of an escalator, we use cardboard materials that originate from sustainable forests.

KONE can provide mass transportation solutions that will help you to maintain energy-efficient passenger circulation.

Escalator movement capacity			
According to	Step width	Nominal speed	
		0.50 m/s*	0.65 m/s*
EN 115	1000	6,000 persons / h	7,300 persons / h
Theoretical	1000	9,000 persons / h	11,700 persons / h

\* 30° inclination with both 2.7/2.0 and 3.6/2.0 radius



For additional information on how to calculate traffic capacity for escalators as well as a detailed look at how to plan the escalators in your building, take a look at KONE's escalator and autowalk planning guide.





## Did you know?

All of KONE's major production sites are ISO 14001 certified, and our factory in Kunshan also holds LEED certification. We use environmentally friendly packaging and distribution methods for all our deliveries.

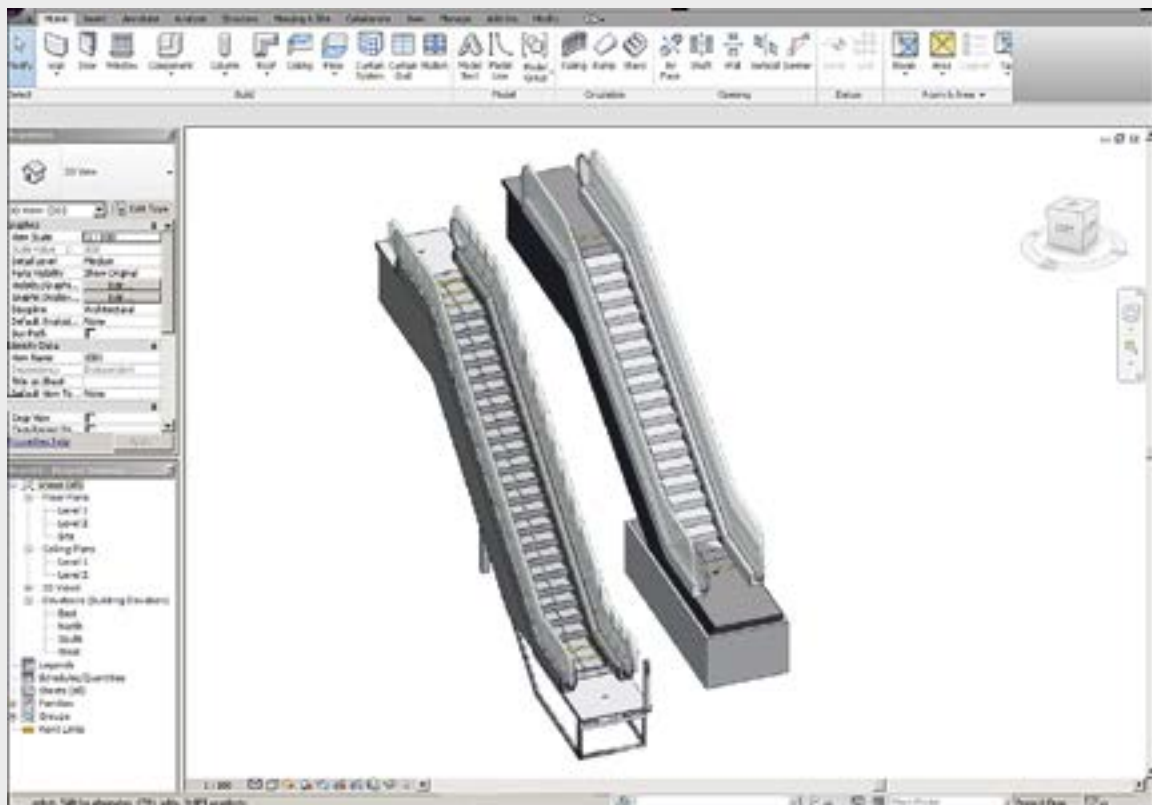
# Identifying the right escalator configuration for your needs

People flow varies immensely depending on the project in question. By helping you to understand the unique requirements of your project, we can help you select the correct escalator configuration.

Escalators in busy public transport hubs such as metro and railroad stations need to be able to cope with high traffic flows and long duty cycles. Escalator characteristics such as vertical rise, speed, step width, and inclination can be specified to meet the requirements of the installation site and the needs of the customer.

A correctly specified escalator will provide maximum reliability and availability over its operational lifetime.

To make specifying your escalator easier, we have standardized many of these characteristics into convenient truss packages – all designed for the demanding people flow requirements of public transportation environments.



## KONE Escalator BIM models

KONE Building Information Modeling (BIM) models make it easier and quicker for architects to prepare digital escalator designs. These models are compatible with most common project documentation systems and include the latest KONE escalator specifications. Once your design is ready, you can send the specifications directly to a KONE sales representative for tendering and/or ordering.

# Supporting you every step of the way

Choose a partner with over a century of experience in delivering pioneering escalator solutions for demanding infrastructure environments around the world. Get expert advice from professionals and enjoy the peace of mind that world-class project management brings. Our project management approach makes the best competencies available for your project, helps mitigate risk, and saves time through efficient coordination.

KONE is with you every step of the way – from planning and design, through installation and maintenance, to modernization – for the entire life cycle of your building.



## 1 Expert design and planning services

- Expert planning advice helps you specify the optimal solution for your building.
- Easy-to-use online design tools save you time and effort during the design process by allowing you to create CAD drawings and 3D BIM models.
- Energy consumption calculations available for every individual escalator solution.

## 2 Safe and efficient installation

- Highly efficient installation methods and professional project management result in considerable cost savings and minimize disruption to other construction work.
- Strict quality criteria for each phase of installation ensure that it's right the first time, every time.
- Continuous training, site audits, safety passports, and proven methods maximize on-site safety.

## 3 Quality assurance and professional maintenance and modernization

- Our reliability laboratory tests and approves every component used in our escalator solutions for reliability.
- Our global spares center stocks over 150,000 parts and offers 24-hour delivery for the most commonly requested parts, speeding up the repair process and minimizing downtime.
- Preventive KONE Care® maintenance solutions – including a comprehensive new online service-reporting system – make it easier to monitor and budget for escalator maintenance.
- Our modernization offering covers everything from individual systems to full replacement solutions. We can provide a thorough analysis of the condition of your equipment and, based on that, a comprehensive plan that helps you plan for possible future modernization.



KONE provides innovative and eco-efficient solutions for elevators, escalators, automatic building doors and the systems that integrate them with today's intelligent buildings.

We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE EcoMod™ and KONE UltraRope™.

KONE employs on average 40,000 dedicated experts to serve you globally and locally.

**KONE Corporation**  
**[www.kone.com](http://www.kone.com)**