

# ES - POWER

Escalator modernization





# Safe. Reliable. Sustainable.

Aging escalators are less reliable, affecting performance. This deterioration can cause increased maintenance requirements, service calls and safety-related concerns.

When you choose our ES-Power modernization package, we replace everything but your escalator's truss and cladding. This upgrade improves its safety, reliability, energy efficiency and appearance. The entire process can be completed with minimal downtime and disruption.

## ES-Power performance package overview:

### Safety improvements

- Handrail speed monitoring
- Missing step monitoring
- Comb plate tension device switches (horizontal and vertical activation)
- Handrail inlet safety device
- Proven and reliable brake design
- Auxiliary main drive shaft brake
- Step and step-chain supervision
- Step upthrust protection
- Skirt panel design per skirt indexing
- Safety skirt brushes

### Energy-saving improvements

- Variable Voltage Variable Frequency (VVVF) technology adjusts the energy consumption based on the passenger load
- VVVF drive acts as a soft starter device
- Up to 58 percent energy savings compared with standard non-energy saving controllers
- Radar control system detects approaching passengers and increases speed from low speed/sleep mode to rated speed
- Increased component lifespan due to reduced operating speed during sleep mode

### Minimal disruption for tenants

- No need for costly building structural alterations
- Minimal disruption to passenger flow pattern
- Minimal to no additional subcontractor work is required
- Existing architectural finishes (cladding) are retained
- Unique installation process ensures high-precision end product

### Enhancements

- Custom-tailored to suit each existing installation
- Modern finishes, such as stainless steel, tinted or opaque glass and colored handrails
- LED Lighting
- Audio messaging systems
- Remote monitoring

### Commercial duty – low traffic

Rise	Up to 49'-2½" (15 m)
Step width	24" (600 mm) 32" (800 mm) 40" (1000 mm)
Angle of inclination	30°
Speed	100 fpm (0.5 m/s)
Usage factor	18–20 hours/day
Step load	Rated for 195 lbs/step (88 kg/step)*

### Heavy duty – high traffic

Rise	Up to 72'-2½" (22 m)
Step width	24" (600 mm) 32" (800 mm) 40" (1000 mm)
Angle of inclination	30°
Speed	100 fpm (0.5 m/s)
Usage factor	20–24 hours/day
Step load	Rated for 265 lbs/step (120 kg/step)

\* values calculated as ASME A17.1/CSA-B44 code for a 40" step width

A simple modernization process that minimizes interference with your everyday operations.

### 1 Survey

Our specialists survey the escalator and take necessary measurements. They also check its condition and accessibility.

### 2 Proposal

We develop a modernization proposal and an installation project plan.

### 3 Design and manufacture

The project design is specifically developed for each installation. Modules and components are manufactured to fit.

### 4 Installation

The installation process takes place in five steps, including a site acceptance test, certification and commissioning of the modernized escalator.



**Installation step 1 – Disassembly**  
Remove existing components and clean truss to prepare the base for the new escalator.



**Installation step 2 – Installation**  
Install components, including electrical cabinet and distribution boxes. Align new upper and lower modules using adjusting tools.



**Installation step 3 – Middle segment**  
Install central modules, track system and step band. Align to ensure a perfect fit.



**Installation step 4 – Aesthetic upgrade**  
Install visible components such as balustrade, decking, cladding, if applicable, and floor plates to make escalator look like new.



**Installation step 5 – Test and commissioning**  
Perform site acceptance test and commissioning.

Ask your TK Elevator representative about our Advantage Packages, designed to make the ES-Power modernization process as quick and convenient as possible for you and your tenants.

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