



# Schindler Escalators

Energy-saving solutions  
for a sustainable future







# Our shared responsibility

Rising energy costs and diminishing natural resources are already impacting our future.

At Schindler, we recognize that the time to act is now. As a global company, we have a duty to help keep the world moving efficiently, in harmony with human needs and those of the environment.

Schindler escalators and moving walks constantly undergo improvement aimed at eliminating wasteful energy use, holding down operating costs and conserving our planet's resources.

The main parameters for the eco-friendly operation and low lifetime running costs of Schindler escalators and moving walks are: reduced weight, an efficient drive system and power-saving technology. Schindler makes better use of fewer materials by optimizing the performance of key components, without sacrificing style or compromising on safety.

Schindler puts advanced technology to work – for all of us.





# Cutting back on consumption

Schindler offers two optional packages to help you meet your energy-reduction targets:  
Ecoline Competence and Ecoline Premium.

### Ecoline Competence

Overseeing the operation of your escalator is Schindler's latest-generation proprietary control system, MICONIC F 5. It runs the Ecoline Competence package, which saves you money by automatically adjusting the motor's power consumption to conform to passenger load variations.

In most applications, escalators are required to run all the time yet are rarely completely full. Ecoline Competence switches the motor from delta to star when passenger frequency drops. This maximizes drive system efficiency and reduces electricity usage by as much as 30% compared with continuous operation.

Delivered with motor ratings of 7.5 kW or more, Ecoline Competence provides power reserves for extreme load conditions, such as store openings and promotional events.

### Ecoline Premium

The second option, Ecoline Premium, extends the advantages of Ecoline Competence by enabling an empty escalator to slow down noiselessly to 30% of its nominal speed thanks to a built-in frequency converter. As soon as a passenger steps on the unit, it accelerates again. When the escalator is in slow-speed mode, the passenger can tell not only that it is working but also in which direction it is running.

Adjusting the speed to changing operating requirements generates energy savings of up to 70% compared to operation at nominal speed. In addition, slower operation reduces the wear and tear on components.

### Solutions for efficient operation

Application	Solution	Annual energy savings
Shopping centers, shops, office buildings and other applications with low, medium and high passenger traffic	<b>Ecoline Competence</b> ECO energy-saving system	1600 kWh for the upward-moving escalator 3200 kWh for the upward and downward-moving escalators
Applications as above with very low to low passenger traffic or occasional use	<b>Ecoline Premium</b> ECO energy-saving system + slow-speed operation	2300 kWh for the upward-moving escalator 4400 kWh for the upward and downward-moving escalators

The examples for energy savings given above are based on a typical commercial escalator installation consisting of two escalators – one moving upward and one downward. Vertical rise: 4.5 m. Step width: 1 m. Speed: 0.5 m/s. Operating time: 14 h/day, 6 days/week, 52 weeks/year. Load profile: 2.5 h – 0%, 8 h – 25%, 2 h – 50%, 1 h – 75%, 0.5 h – 100%.



# Ecoline Competence

## Efficient low-load operation



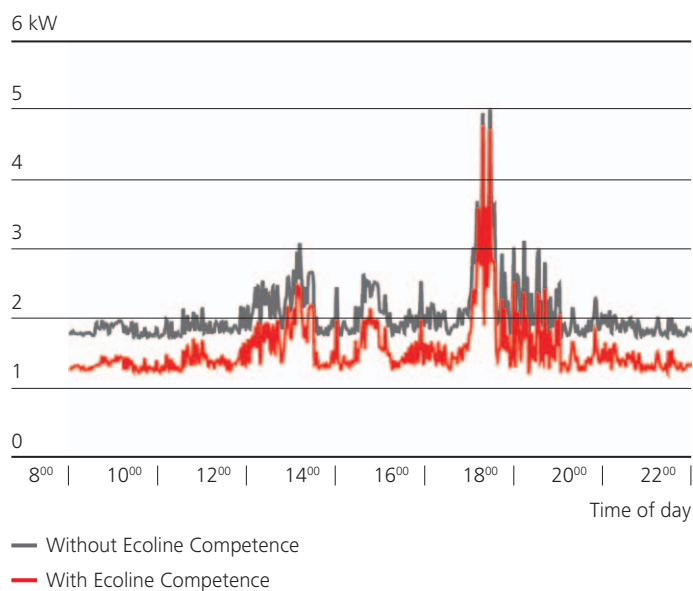
When the escalator is fully loaded, Ecoline Competence is inactive



With low and medium loads, Ecoline Competence is active

Ecoline Competence achieves energy savings of up to 30%.  
Within a year, this option will pay for itself.

### Power consumption for an escalator with and without Ecoline Competence



# Ecoline Premium

## The added value of slow-speed operation

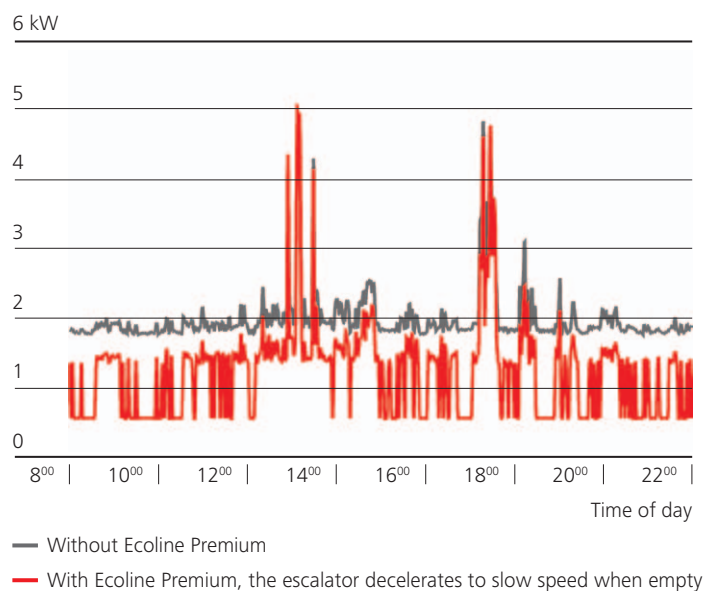
Energy savings can be as high as 70% with Ecoline Premium, which consists of Ecoline Competence plus slow-speed operation.

All units are driven by a low-revolution 6-pole motor, resulting in low noise emission and a long service life of the components.



With Ecoline Premium, the escalator operates in slow speed when empty

### Power consumption for an escalator with and without Ecoline Premium









# Fewer kilos, well distributed

## The slimmed-down truss

Today, the truss used in Schindler escalators and moving walks weighs up to 20% less than the same design five years ago. That substantial reduction saves on the raw materials and energy used in the production of steel. Less steel in our units benefits not only the environment but also our cost-conscious customers.

And at the same time it enhances performance. Based on the results of finite element analysis, Schindler designed a new, lighter truss that delivers higher stiffness than its predecessors, reducing lateral vibration by 30% through the redistribution of beam weight from the middle to each end.

## A fine step forward

At 12.5 kg, Schindler's aluminum escalator steps are the lightest in the industry. For an escalator with a 4.5-m rise, this means a savings of 300 kg compared to the use of heavier steel steps.

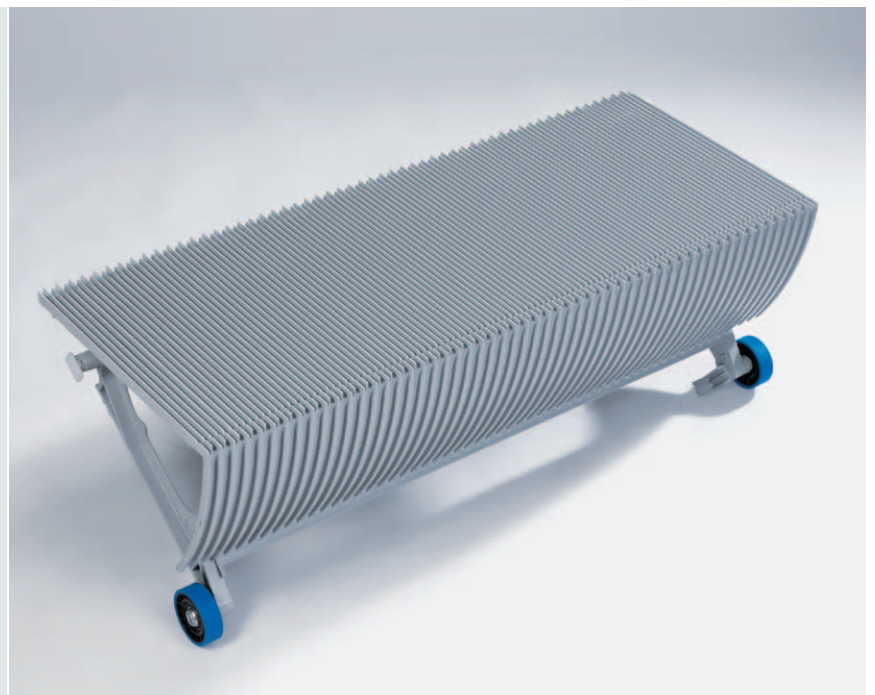
Static and dynamic resistance to failure exceeds EN 115 requirements. Unlike multipart steel steps, Schindler's monoblock steps are made without screw connections, precluding the risk of disassembly.

With a significantly longer lifetime and a superior safety record than less economical steel steps, these aluminum steps are another sustainable solution from Schindler.

Material-optimized truss design with greater stiffness



The Schindler step far exceeds EN 115 safety requirements and is the lightest step in the escalator industry







# On track for a greener future

Day after day, 900 million people across five continents place their trust in Schindler. Wherever they are produced – in Europe, China, the United States or Brazil – Schindler escalators and moving walks meet the same design, quality and safety standards.

Numerous initiatives for reducing the environmental impact of products and processes have been implemented. For more information go to the environmental section of our corporate citizenship report at <http://corpcit.schindler.com>.

At Schindler, we never stand still. We are driven by our aim to be the partner of choice for our customers and to make a substantial contribution to a healthy environment.



# Schindler

## Moving up to a new level

For generations, Schindler has been providing the finest elevator and escalator technology to architects and builders around the world. The company was founded in Switzerland in 1874, and has grown to become the world's second largest elevator and escalator manufacturer, operating in more than 100 countries worldwide.

For further information including location of the Schindler office nearest you, please visit:

**[www.schindler.com](http://www.schindler.com)**