

# VELINO: THE COMMERCIAL ESCALATOR SERIES THAT CATERS YOUR NEEDS



An aerial photograph of a dense city skyline, likely New York City. A prominent feature is a long, blue, double-decker escalator that runs diagonally across the side of a tall skyscraper. The surrounding buildings are various heights and styles, creating a complex urban landscape. The sky is clear and bright.

# ENHANCING URBAN MOBILITY: WITH ESCALATORS SINCE 1906

One World Trade Center's flying escalator, USA

January 2018 marked the 125th anniversary of the first-ever escalator. It was more or less invented by accident. Jesse Reno had been trying to create New York's first double-decker subway but ended up with a moving stairway traveling at a 25° angle for a mere seven feet (2.13 m). But in just two weeks it carried some 75,000 passengers at the Old Iron Pier on Coney Island. A global success story was born.

## **In escalators since 1906**

We were soon into the escalator business with our first model installed at a department store as long ago as 1906. 115 years of engineering excellence go into our velino 100, 200 and 300 models.

## **As diverse as they come**

We build mobile escalators for boarding and disembarking aircraft, restaurant escalators with just one moving handrail for waiters with only one hand free, and suspended escalators that crisscross the open space of an atrium. You name it, we build it.

## **Remarkable locations**

Our underwater installation at Shanghai's Ocean Aquarium ensures visitors enjoy spectacular sights.

The One World Trade Center in New York has 12 of our escalators and 71 elevators. We also equipped the world's largest department store in Busan. Higher, bigger, better – escalators from TK Elevator.

## **Myth debunked**

“Stand on the right, walk on the left” actually slows down passenger flow. Studies show that escalator capacity increases by about 30% if nobody walks. At TK Elevator, we know the escalator business like the back of our hand and it's this expertise that makes our new velino series so special.



Shanghai Ocean Aquarium, China



Shinsegea Center, Busan, South Korea



Restaurant escalator for waiters,  
Hamburg, Germany

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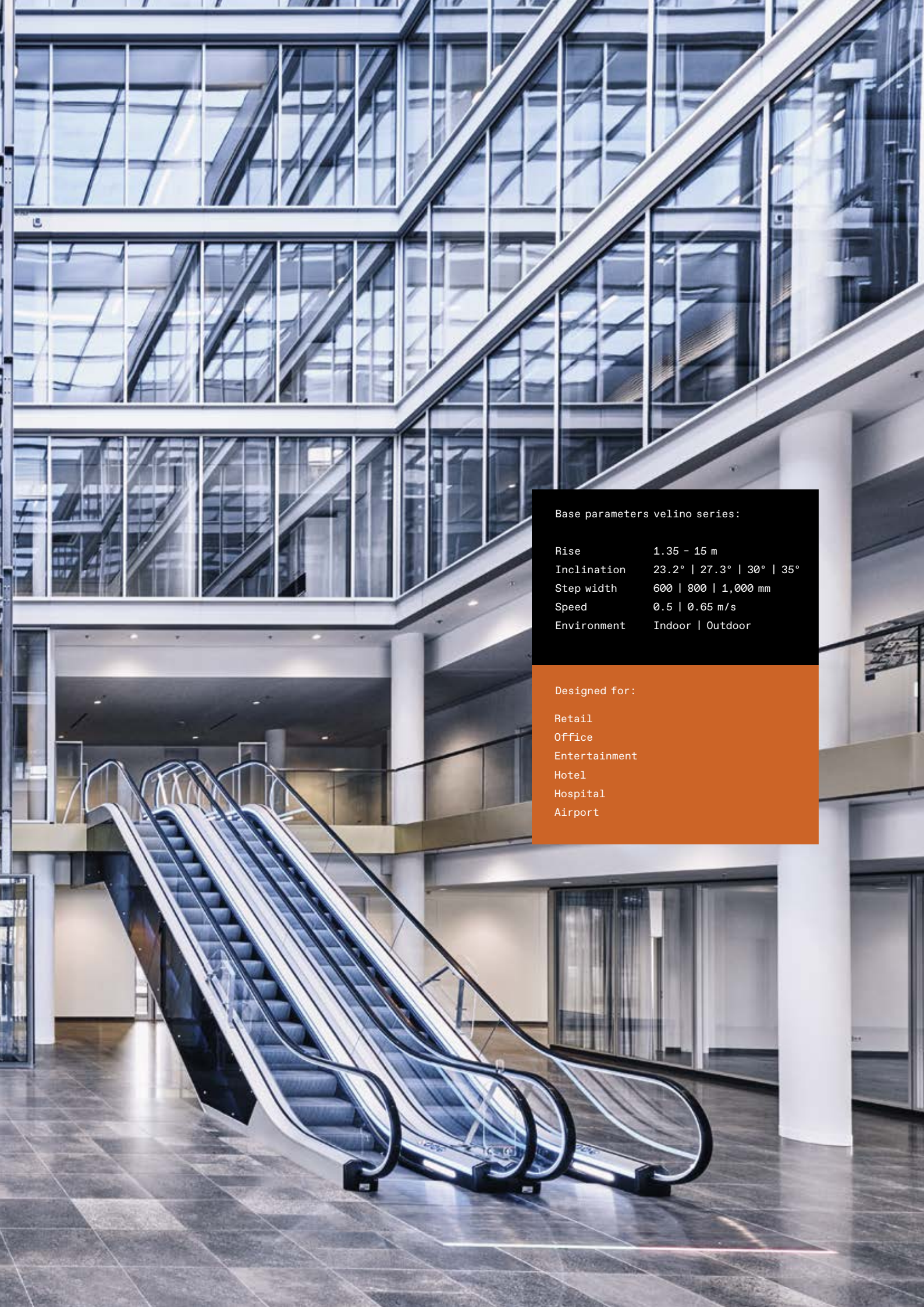
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About us



Base parameters velino series:

|             |                           |
|-------------|---------------------------|
| Rise        | 1.35 - 15 m               |
| Inclination | 23.2°   27.3°   30°   35° |
| Step width  | 600   800   1,000 mm      |
| Speed       | 0.5   0.65 m/s            |
| Environment | Indoor   Outdoor          |

Designed for:

Retail  
Office  
Entertainment  
Hotel  
Hospital  
Airport



# CATERING TO YOUR NEEDS



Our new velino series – the velino 100, 200 and 300 – is our most advanced range of escalators designed to fit the whole bandwidth of commercial applications. The velino series covers all commercial needs from standard or design-oriented applications to tailored projects. Each and every velino makes sound business sense and is safety-focused with over 50 smart safety-enhancing features.



## **velino 100: Makes sound business sense**

High-quality technology based on German engineering expertise and components built for reliably sustainable operations make the velino 100 a great investment. This value-for-money escalator means you can rest assured you're running your business well.



## **velino 200: Underlines your building's premium**

Heighten your building's premium appeal with a performance escalator that offers you multiple design options and flexible functions. With a velino 200 you can be proud of giving your users a standout escalator experience.



## **velino 300: Realises your vision**

By tailoring our market-leading engineering to fit any project, we can work with you to create something very special. Then you'll enjoy the thrill of giving your users an entirely new sense of aesthetic motion.

# A SMART CHOICE FOR YOUR APPLICATION



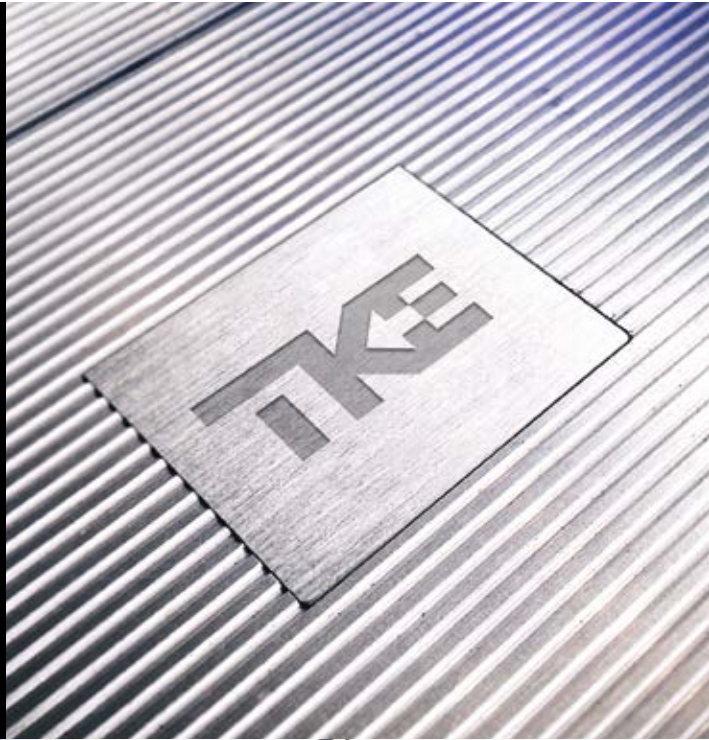
The velino 100 is the value-for-money escalator that makes sound business sense in commercial buildings where you need a practical solution based on high-quality German engineering.



\$

## velino 100

Smart product design paves the way for smooth operations. Superior product quality ensures durability. Multiple features offer sustainable performance.



Customer lobby at TK Elevator test tower, Rottweil, Germany





Xiamen International Convention Center, China



Step gap lighting

## Outstanding durability

Durability comes from intelligent design and first-class manufacturing standards. Our proprietary robust step design exceeds international code requirements and offers utmost reliability with a minimal risk of breakage. The truss made of top-quality steel meets the highest international welding standards (including EN 1993 and EN 1090) and is assembled with the help of lasers to align the key elements and ensure a perfect fit.

✓ EN 1993 | 1090

## Smooth operations

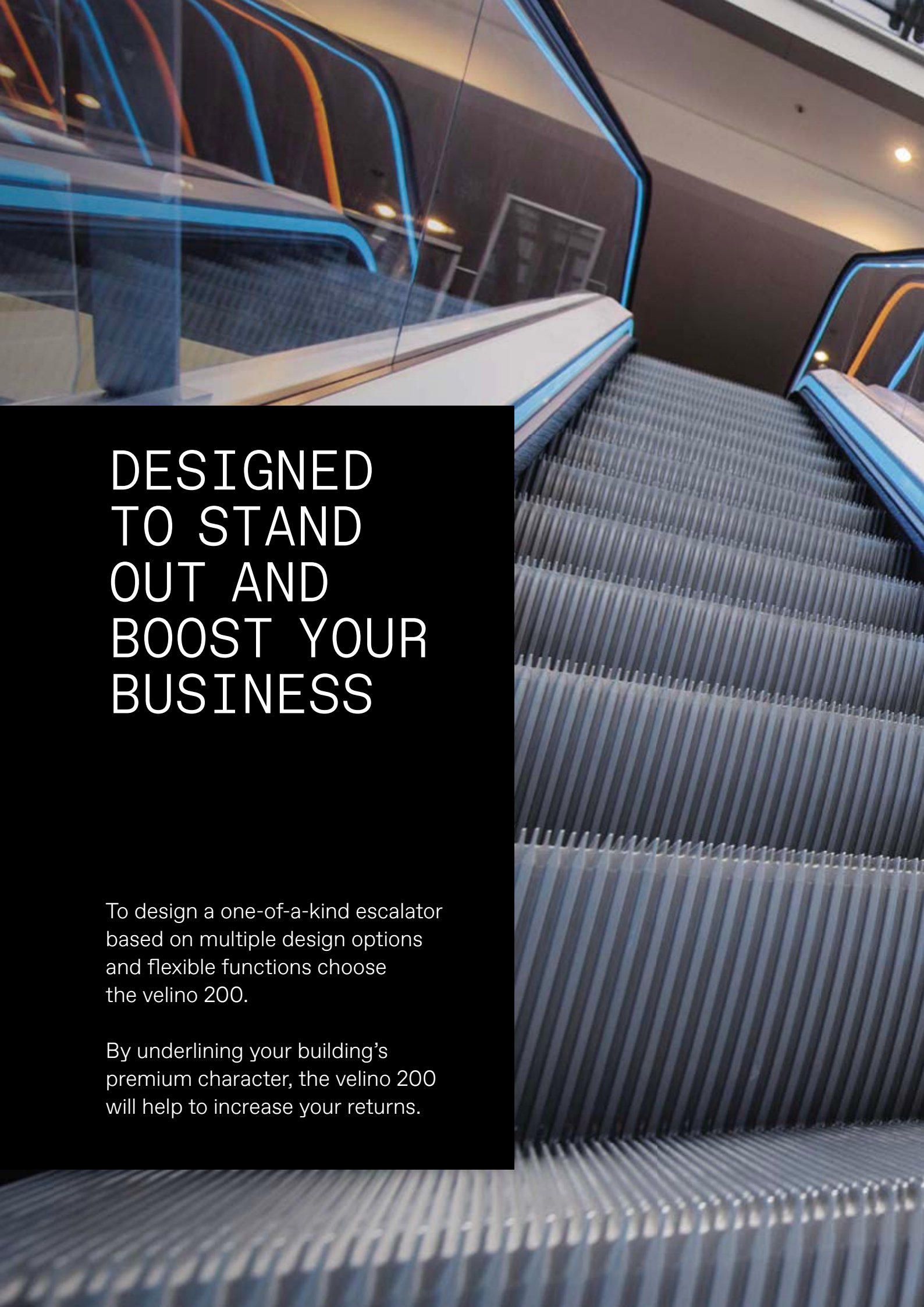
With its precisely aligned guide rails, guiding rollers and smooth run rails for a perfectly even, reliable and jolt-free step run, the velino 100's superior guiding system ensures exceptional passenger comfort in line with ISO 18738-2. The unique handrail inlet with its two-door release mechanism opens wide to lower the risk of entrapment while the absence of brushes and rubber guards gives the velino 100 a pleasingly modern look.

✓ ISO 18738 - 2

## Sustainable performance

Sustainability is now a hot topic in building design. The velino 100 can help to improve your building's carbon footprint by giving you the choice of different operating modes delivering significant energy savings. Measured against the ISO 25745-3 standard, the velino series is capable of achieving an A+++ energy efficiency rating.

✓ ISO 25745 - 3



# DESIGNED TO STAND OUT AND BOOST YOUR BUSINESS

To design a one-of-a-kind escalator based on multiple design options and flexible functions choose the velino 200.

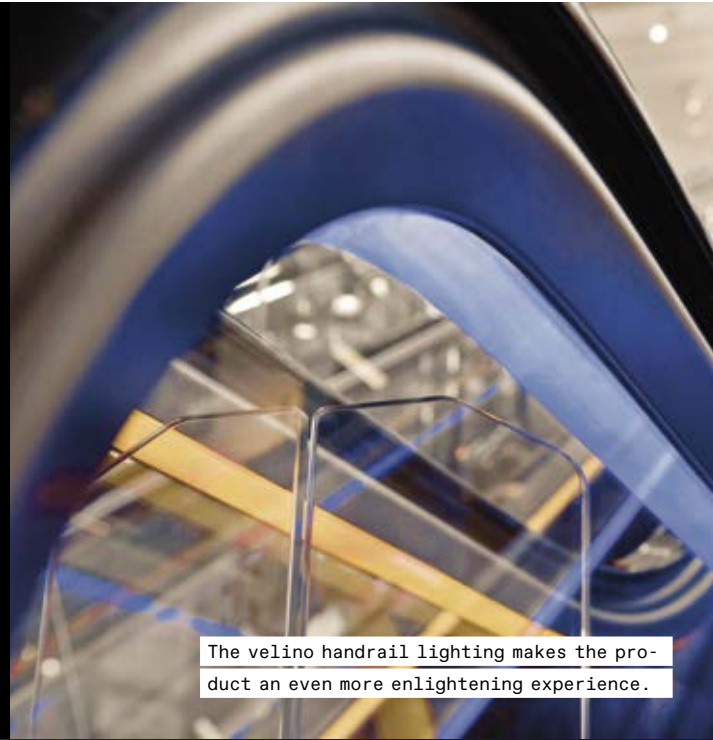
By underlining your building's premium character, the velino 200 will help to increase your returns.





## velino 200

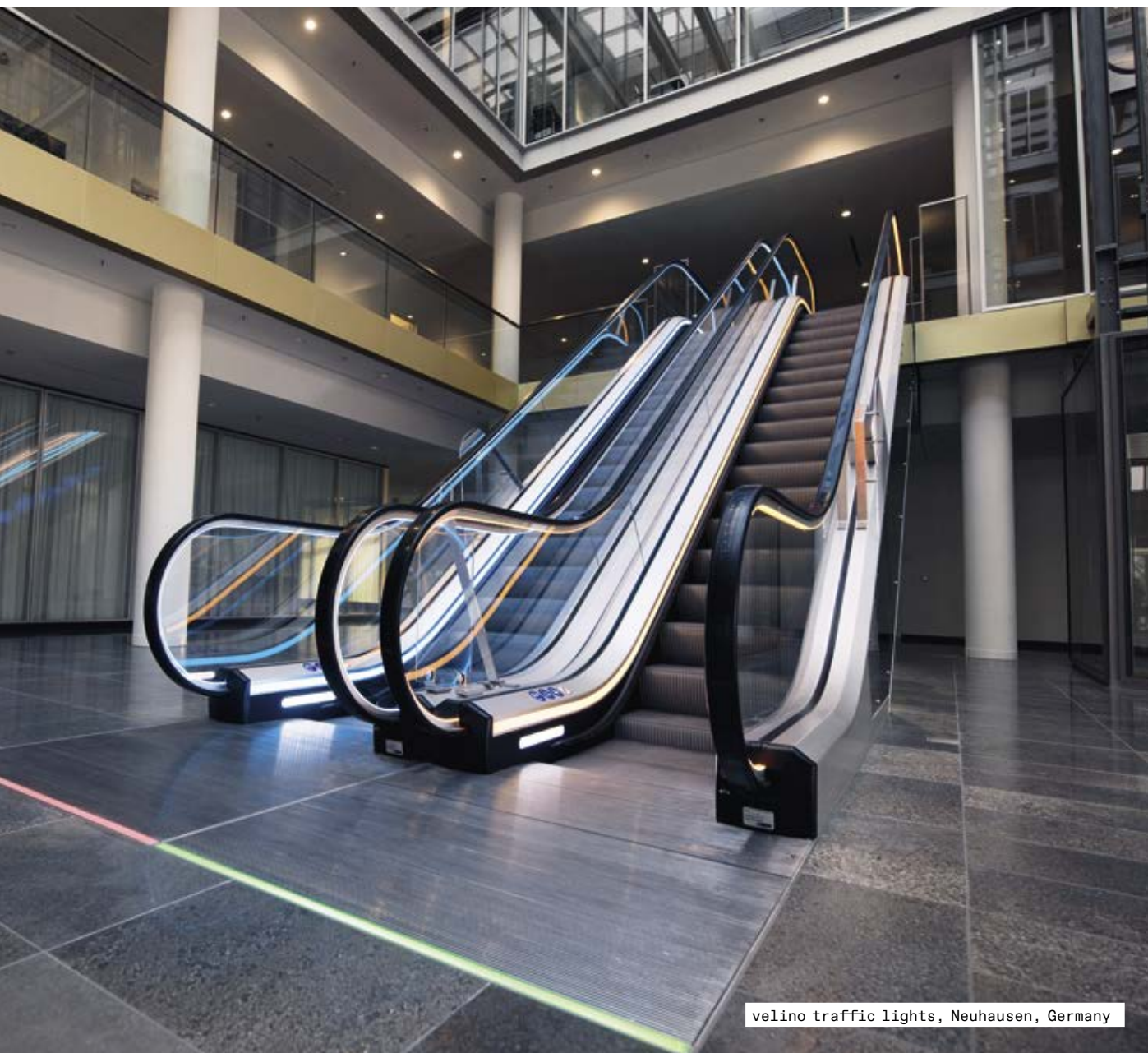
Designed to stand out through eye-catching lighting and cladding, this performance escalator will make you proud of the perfect travel experience your users enjoy.



The velino handrail lighting makes the product an even more enlightening experience.



Multifunctional building, TK Elevator, Neuhausen, Germany



velino traffic lights, Neuhausen, Germany

## Enlightening experience

Decorative lighting is a powerful design element that can radically enhance space.

Our many lighting options offer you numerous possibilities to improve the aesthetic appeal of your entire building. Attractive features such as skirt band lighting, truss lighting, balustrade lighting, soffit light stripes, illuminated soffit cladding and soffit spotlights will light the way to higher returns.

## Leading the way

Traffic lights indicate to users the direction and availability of your escalator. Different symbols, signs or colours tell an approaching user that the escalator is running in the desired direction, in the opposite direction or temporarily out of order. Inner decking, floor plate and front skirt traffic lights, and in-newel traffic lights are not just helpful for users but attractive design elements in themselves.

## Designer cladding

Your velino 200 can feature a unique cladding concept with almost invisible joints and a wide variety of colours and finishes to give your escalator a one-of-a-kind look and feel. And that will most certainly enhance your building's aesthetic appeal.



# TAILORED ENGINEERING – WITH ALL WISHES FULFILLED

Looking for a unique solution that is tailored to fit your ambitious project? You can realise your vision with the velino 300.

Its tailored engineering raises the bar for commercial escalators and leaves no wishes unmet.





## velino 300

Whatever requirements you may have, we will fulfill them. This is a promise only TK Elevator can keep, as these eye-catching escalators in iconic buildings prove.



### Breuninger Flagship Store, Düsseldorf

velino escalators are an eye-catching feature of Breuninger's five-floor boutique-style department store, a landmark building in Düsseldorf's chic shopping heartland. The design of this conceptually driven flagship store was inspired by the neighboring Hofgarten Parkland. The velino escalators were tailored to perfectly fit in with the store's inspiring interior architecture.

### Beijing National Aquatics Center



The award-winning National Aquatics Center (aka "Water Cube") was built for the swimming competitions at the 2008 Summer Olympics. The Center's breathtaking architecture, inspired by the natural formation of soap bubbles, is matched by innovative fabrication, material and environmental engineering. velino escalators are part and parcel of the Center's continuing appeal as a water park complex.





## **Athletic Club Museum, Bilbao**

Situated on the ground floor of the award-winning San Mamés Stadium in Bilbao, Spain, this landmark sports facility has won many awards, including “Best Sports Building” in 2015. The Museum’s iconic architecture called for matching aesthetics in two velino escalators custom-designed to mimic the players’ tunnel at this soccer stadium and painted in the distinctive red of the team, Athletic Club de Bilbao.



# Prioritising sustainability and safety

## Sustainability pays off – with energy-efficient escalator solutions

Many people still think that green solutions are more expensive. Our velino series proves that sustainability pays off. These escalators put energy efficiency into operational practice to lower your building's carbon footprint, improve your environmental image, and boost your bottom line.

### Energy-efficient lighting

State-of-the-art LED technology lasts longer than conventional lighting and is up to 80% more energy-efficient than halogen lighting.

### Energy-saving operations

Depending on your load cases, operational modes such as standby or sleep mode and the regenerative drive option can help make your escalator more energy-efficient.

### Lower environmental impact

By continuously improving our escalator solutions, we minimise their environmental impact in product life cycle assessments.



Continuous operation

Save up to 15%\*



Slow speed operation

Save up to 60%



Slow speed stop operation

Save up to 90%



Intermittent operation

Save up to 95%

ENERGY EFFICIENCY

A+++

ISO 25745-3

\* Only applicable with Star-Delta



## Safety first – it's in our DNA

Since safety is a top priority in your building, we put safety first in designing the velino series. Around 50 standard or optional safety features mitigate the risk of incidents and injuries. Our portfolio includes an extensive range of motion safety devices and other important features to secure building interfaces. All this plays a key role in ensuring passenger safety – day in, day out.

### **Motion safety**

A velino escalator is designed with user behavior in mind. That is why our optional safety features go beyond the requirements of local codes. The auxiliary brake on the main shaft, for example, stops the step band in the unlikely event of a disconnection between the motor and drive chain to prevent any uncontrolled downward movement of the steps and reduce the risk of falls.

### **Proactive safety**

Fall protection is one of our proactive safety features. Safety curtains, which can be installed parallel to the balustrades and are higher than them, further reduce the risk of passengers climbing over the side of an escalator.

### **Component safety**

We strive to enhance user safety and product reliability by building durable components that meet first-class manufacturing requirements. Our proprietary step design, for example, offers utmost reliability combined with minimal breakage risk.

### **Building interfaces**

To enhance the safety of the interfaces between an escalator and a building, we offer diverse solutions, e.g. deflectors for ceilings or crisscross arrangements.

# YOUR SERVICE PARTNER: ALWAYS THERE



Whatever your commercial operation, you need an escalator that is installed on schedule and, once running, ensures people can get where they want to go quickly and effortlessly. Our installation expertise will make sure your velino starts operating on time. Our technical and service support will keep it running smoothly from then on.



More details about MAX are available via this QR code.

## MAX – the game changer that keeps people moving

Introducing MAX: the elevator industry's first real-time, cloud-based predictive maintenance solution. Our smart, machine learning Internet of Things (IoT) solution dramatically increases elevator availability by reducing out-of-service situations through real-time diagnostics.



Data gathering



Precise diagnostics



Predictive intervention

MAX is only available in selected markets. Consult your TK Elevator sales representative for further information.

## Ensuring continuous people flow

### On-schedule installation

Our expertise in planning and project management, the vigorous process we employ to select suitable installation teams, and the regular training all our personnel go through are the reasons why we can deliver installation on time – anywhere in the world and in any kind of commercial building.

### Maximising escalator uptime

Our service goal is quite simple: maximise your escalator uptime. When you need support, our highly trained service technicians will be quickly on hand with the right spare parts and know-how to ensure

your velino stays running smoothly or is back operating again in the shortest possible time.

### Tailor-made service packages

Choose from a variety of service and maintenance packages ranging from basic maintenance to EN 13015 through to comprehensive support. As our service technicians are all specialists in specific application areas, we work closely with you to understand your needs and come up with a customised service concept. That will not only enable you to meet your reliability and safety goals but also give you cost transparency and budget security.

## Interesting numbers

4,500,000,000

passengers per day

637,000

numbers of units worldwide

7,000

average number of passengers  
per unit per day

# Design tools: making your life easier

We supply you with a number of state-of-the-art tools so your architects, engineers and construction specialists can efficiently plan, design, construct and manage your building and infrastructure.



## eSlider: Easier preliminary planning

Our eSlider tool enables you to generate your escalator specifications online. This will make your preliminary planning that much easier.



More details of the eSlider tool are available via this QR code.

## BIM: Building Information Modeling

BIM is an intelligent 3D model-based process that provides the insights and tools for a seamless information flow from design to execution. At TK Elevator we work with the world's leading BIM content platform, BIMobject®, where you can download our velino BIM.



More details of the BIM tool are available via this QR code.

# YOUR INNOVATION PARTNER

elevators and escalators under maintenance

1,200,000+

countries of customers

100+

employees

50,000+

service available for customers

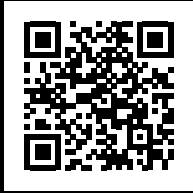
24/7

locations

1,000+

service technicians

24,000+



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