

ESCALATORS AND MOVING WALKS

Escalating performance.



MOVE BEYOND



Escalate performance. Optimize traffic.

When you choose an escalator or moving walk, you want to feel confident with the decision you make. You want people you can trust and service you can count on. You want products that last and have minimal impacts on our environment. When you choose TK Elevator, confidence is engineered into everything we do, from the planning and installation process to routine maintenance. It's the reason customers trust us.

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TK ELEVATOR MOVES PEOPLE

The future of urban mobility.

In 40 short years, we've become one of the world's leading elevator companies with unique engineering capabilities, offering next-generation solutions like MULTI, the ropeless elevator, and MAX, a cloud-based predictive maintenance service. Whether building a new state-of-the-art system or optimizing and modernizing existing ones, our solutions deliver crucial energy and time efficiencies, helping to address the challenges of urbanization and transform cities into the best places to live.

customers in countries

100+

sales and service locations

900+

sales over

\$8 billion

employees

50,000+

A trusted partner

We support our customers throughout their project lifecycle, from the design to the end-of-life phase. Every step of the way, we strive to fully understand their needs and consistently deliver the safest, highest quality passenger transportation solutions, maintenance and modernization packages.

Through our internal technical support function, International Technical Services Americas, TK Elevator trains its service technicians in a multibrand portfolio, enabling them to successfully service more than 1.2 million units under maintenance.

TK Elevator Worldwide

Driven by global megatrends such as urbanization and the need for efficient use of environmental resources, our global community of more than 50,000 colleagues works together with our customers to harness our engineering expertise and strive for technological and business solutions that satisfy the demand for "more" in a "better" way. Find out more: www.tkelevator.com



We provide smart and innovative products for a wide variety of applications:

- ✎ Passenger and freight elevators
- ✎ Escalators and moving walks
- ✎ Passenger boarding bridges
- ✎ Stair and platform lifts
- ✎ Customized service and modernization solutions

ESCALATORS

Be confident in your next step.

TK Elevator offers three classes of escalators, each designed to move people safely and efficiently.





velino – commercial-duty escalator

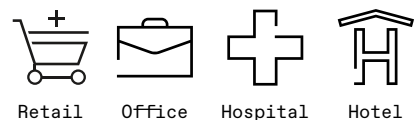
Rise	Up to 49'-2½" (15 m)
Max capacity (people/hour)	6000
Step load	195 lbs/step ¹
Inclination	27.3° or 30°
Step chain roller	Inside
Location handrail drive	Truss
Handrail shape	U-shape
Climate conditions	Indoor Outdoor sheltered
Nominal step width	24" (600 mm) 32" (800 mm) 40" (1000 mm)
Speed	100 fpm (0.5 m/s)
Flat steps	2 (minimum per code) or 3 (optional upon request)
Balustrade	Slim Robust
Aesthetic lights	Balustrade Skirt Truss Ambient cladding Soffit cladding
Traffic lights	Floor plate Decking Column
Safety lights	Step gap Comb plate
Drive unit	Chain drive
Usage factor	18-20 hours/day
Average life span	20 years

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes. Consult your local TK Elevator representative for details. Dimensions above based on 100 fpm.

¹ Minimum ASME requirements assuming 40" step width

² Up to 59% energy savings as per Technical Analysis Study Report (TASR)

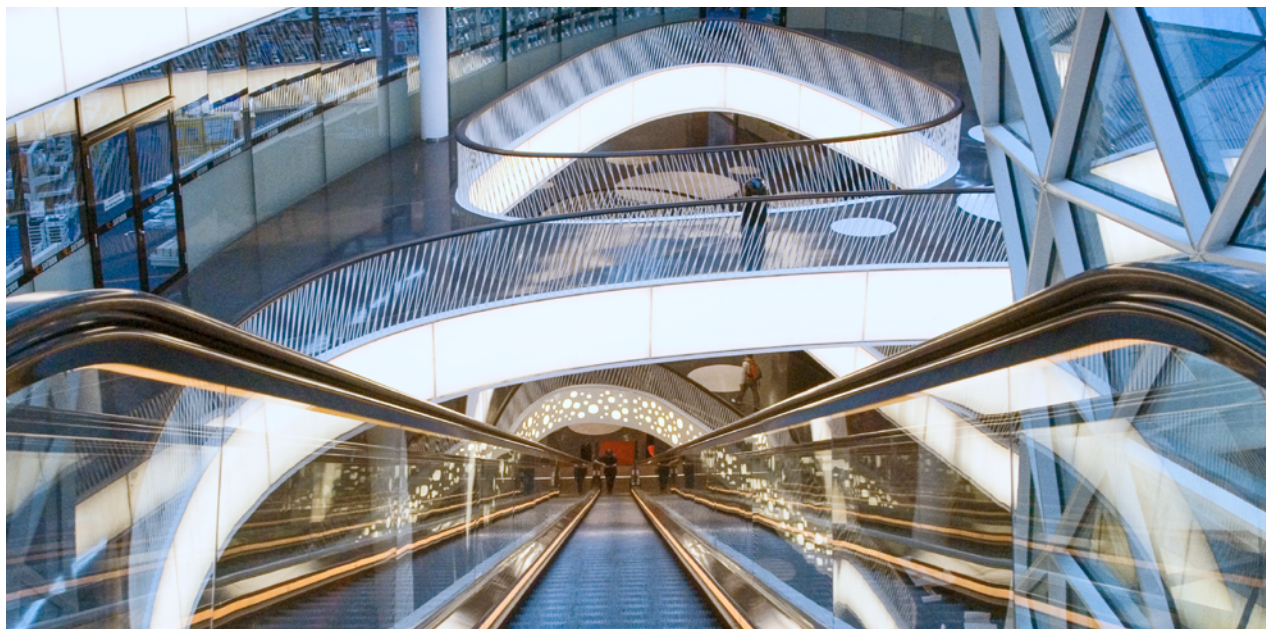
Commercial-duty escalator



Airport Transport Entertainment

TK Elevator's velino commercial-duty escalator is designed to preserve the architectural integrity of almost any building. But it's more than just good looks. This machine runs efficiently, keeping daily commuters safe while using minimal energy.

Balustrades of ⅜" (10 mm) thick tempered safety glass panels and optional under-handrail lighting provide striking aesthetics. Dual CPU controllers and optional Variable Voltage Variable Frequency (VVVF) drive technology save energy and lower operational costs.²



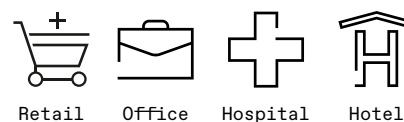
tugela – heavy-duty escalator

Rise	Up to 72'-2" (22 m)
Max capacity (people/hour)	6000
Step load	Rated for 265 lbs/step ¹
Inclination	27.3° or 30°
Application	High traffic, heavy duty
Step chain roller	Inside
Location handrail drive	Truss
Handrail shape	U-shape V-shape
Climate conditions	Indoor Outdoor
Nominal step width	24" (600 mm) 32" (800 mm) 40" (1000 mm)
Speed	100 fpm (0.5 m/s)
Flat steps	2 (minimum per code) or 3 (optional upon request)
Balustrade	Robust Metal
Aesthetic lights	Balustrade Skirt Truss Ambient cladding Soffit cladding
Traffic lights	Floor plate Decking Newel Column
Safety lights	Step gap Comb plate
Drive unit	Chain drive Direct drive
Usage factor	20–24 hours/day
Average life span	25 years

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes. Consult your local TK Elevator representative for details. Dimensions above based on 100 fpm.

¹ Step load per tugela duty cycle for 40" step

Heavy-duty escalator



Airport Transport Entertainment

Our heavy-duty tugela escalator is ideal for high-rise applications, convention centers, stadiums, smaller airports or locations with heavy traffic. The reinforced balustrade provides additional strength against bumps from bags and cases. You can customize the look with glass colors and optional under-handrail lighting.

The tugela features oversized motors, gearboxes and chains. A sprocket-type tension carriage reduces wear on the chain rollers and a handrail pressure system improves handrail drive traction.



victoria – transit-duty escalator

Rise	Up to 164' (50 m)
Max capacity (people/hour)	6000
Step load	Rated for 320 lbs/step ¹
Inclination	27.3° or 30°
Application	Transit duty
Step chain roller	Outside
Location handrail drive	Truss Newel
Handrail shape	U-shape V-shape
Climate conditions	Indoor Outdoor
Nominal step width	24" (600 mm) 32" (800 mm) 40" (1000 mm)
Speed	100 fpm (0.5 m/s)
Flat steps	2 (minimum per code), 3 or 4 (optional upon request)
Balustrade	Robust Metal
Aesthetic lights	Balustrade Skirt Truss Ambient cladding Soffit cladding
Traffic lights	Floor plate Decking (Glass) Newel (high deck balustrade) Post
Safety lights	Step gap Comb plate
Drive unit	Chain drive Direct drive
Usage factor	24 hours/day
Average life span	30+ years

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes. Consult your local TK Elevator representative for details. Dimensions above based on 100 fpm. May be modified to suit APTA guidelines.

¹ Step load per APTA guidelines for 40" step

Transit-duty escalator



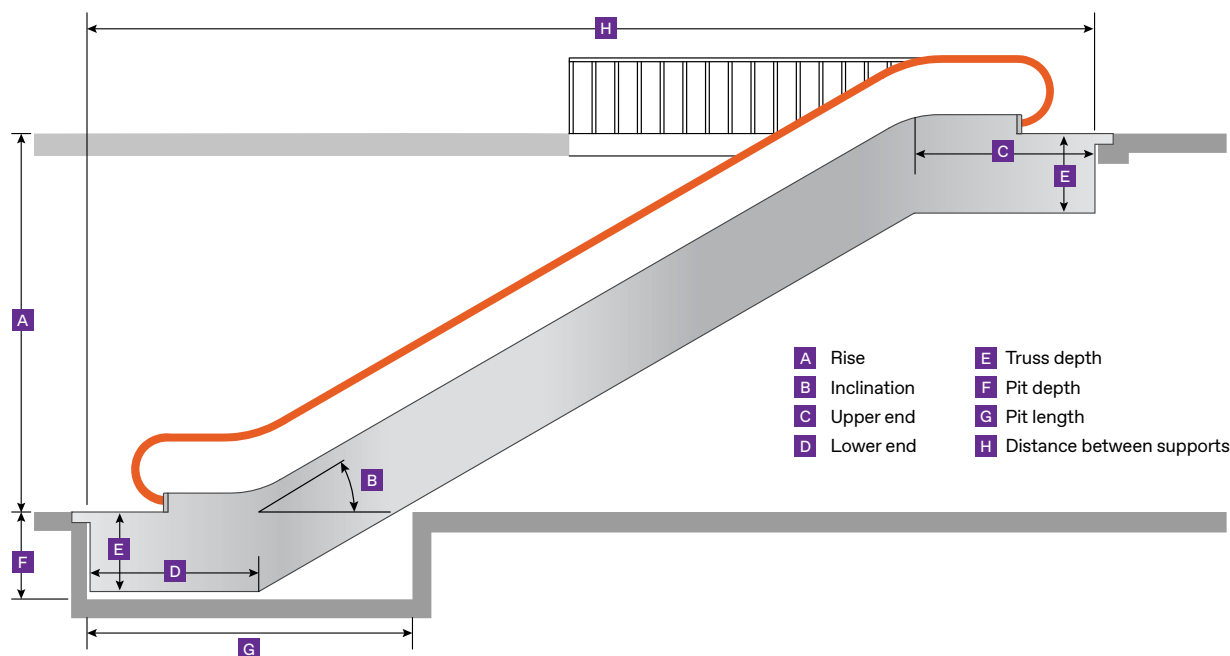
Airport Transport Entertainment

The victoria transit-duty escalator is a non-stop workhorse ideal for transport hubs such as train stations and airports. It's our strongest, most powerful escalator and has a reinforced drive system capable of 24/7 maximum performance at full load capacity.

The victoria features a step chain with external 4" (100 mm) rollers rather than traditional 3" (75 mm) internal rollers. It was developed specifically for transit traffic and comes with metal stainless steel or robust glass balustrades.

Dimensions and data*

Side elevation



Escalators

velino

Flat steps	Rise (m) A	Inclination B	Transition radius Top Bottom (mm)	Upper end (mm) C	Lower end (mm) D	Truss depth (mm) E	Pit depth (mm) F	Pit length (mm) G
2	Up to 49'-2½" (15)	27.3° 30°	3'-5½" 3'-5½" (1050 1050)	8'-2½" (2490)	7'-3" (2210)	3'-5½" (1050)	3'-9¼" (1150)	14'-1½" (4300)
3	Up to 49'-2½" (15)	27.3° 30°	4'-11½" 3'-5½" (1500 1050)	9'-8½" (2950)	8'-6¾" (2610)	3'-5½" (1050)	3'-9¼" (1150)	15'-5½" (4700)

tugela

Flat steps	Rise (m) A	Inclination B	Transition radius Top Bottom (mm)	Upper end (mm) C	Lower end (mm) D	Truss depth (mm) E	Pit depth (mm) F	Pit length (mm) G
2	Up to 72'-2" (22)	27.3° 30°	3'-5½" 3'-5½" (1050 1050)	8'-2½" (2490)	7'-3" (2210)	3'-5½" (1050)	3'-9¼" (1150)	14'-1½" (4300)
3	Up to 72'-2" (22)	27.3° 30°	4'-11½" 3'-5½" (1500 1050)	9'-8½" (2950)	8'-6¾" (2610)	3'-5½" (1050)	3'-9¼" (1150)	15'-5½" (4700)

victoria

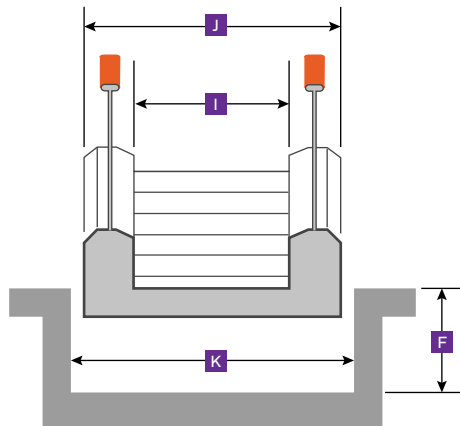
Flat steps	Rise (m) A	Inclination B	Transition radius Top Bottom (mm)	Upper end (mm) C	Lower end (mm) D	Truss depth (mm) E	Pit depth (mm) F	Pit length (mm) G
2	Up to 164'-0" (50)	27.3° 30°	4'-11½" 3'-11¼" (1500 1200)	9'-4¾" (2855)	7'-7½" (2315)	3'-9¼" (1150)	4'-0½" (1220)	14'-5½" (4400)
3	Up to 164'-0" (50)	27.3° 30°	8'-6¾" 6'-6¾" (2600 2000)	11'-7¾" (3550)	9'-7 3/8" (2930)	3'-9¼" (1150)	4'-0½" (1220)	16'-5½" (5015)
4	Up to 164'-0" (50)	27.3° 30°	9'-10½" 7'-2½" (3000 2200)	14'-10½" (4525)	11'-10½" (3610)	3'-9¼" (1150)	4'-0½" (1220)	18'-9½" (5730)

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes.

*Some options/features may affect wellway dimensions. Consult your local TK Elevator representative for details.

Dimensions above based on 100 fpm. May be modified to suit APTA guidelines.

Cross-section



- F** Pit depth
- I** Nominal width
- J** Truss width
- K** Pit width

velino/tugela			
Nominal step width (mm) I	Truss width (mm) J	Pit width (mm) K	Persons per hour 100 fpm (0.5 m/s)
24" (600)	3'-8½" (1130)	3'-10⅞" (1190)	3600
32" (800)	4'-4⅞" (1330)	4'-6¾" (1390)	4800
40" (1000)	5'-0¼" (1530)	5'-2⅝" (1590)	6000

victoria			
Nominal step width (mm) I	Truss width (mm) J	Pit width (mm) K	Persons per hour 100 fpm (0.5 m/s)
24" (600)	4'-0⅞" (1230)	4'-2⅜" (1290)	3600
32" (800)	4'-8⅝" (1430)	4'-10⅞" (1490)	4800
40" (1000)	5'-4⅞" (1630)	5'-6⅞" (1690)	6000



Three origins. One quality.
Our innovative manufacturing centers are located in China, Spain and Germany. Each has expertise in lean design principles and manufactures to the latest engineering standards. Each year, escalators from our three manufacturing centers are rated best-in-class.

ESCALATOR MODERNIZATION

Achieve optimum efficiency.

Modernizing your escalator is the most effective way to improve its performance while reducing its energy consumption and costs. Your modernized escalator will meet the latest code while gaining improved safety and reliability.



ES-Power modernization process



To modernize your escalators, an entirely new escalator is built within the existing steel truss. You can expect a reduction in energy use. TK Elevator also will work to use much of your existing equipment to reduce waste and lower your costs.

With our ES-Power modernization package, we can use most existing trusses, regardless of manufacturer. The existing truss will be cleaned, repainted and prepared for installation of the modernization component package.

As part of the modernization, your escalator will be brought to current ASME code standards, and will receive more than 15 safety devices.

With ES-Power modernization package, the following components are replaced:

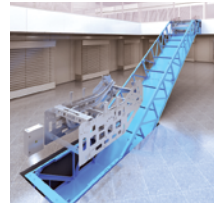
- Floor plates
- Comb plate assemblies
- Handrails
- Handrail drive system
- Balustrades, skirts, deckings
- Mounting hardware
- Steps, chains, axles, rollers
- Step tracks and track supports (structure or truss is the only item retained)
- Motor, gearbox and brake
- Main drive sprocket assembly
- Lower tension carriage systems
- Controls, piping and electrical equipment

Install step 1 – Disassembly



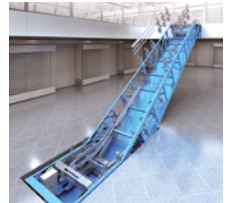
Remove existing components and clean truss to prepare the base for the new escalator.

Install step 2 – Installation



Install components, including electrical cabinet and distribution boxes. Align new upper and lower modules using adjusting tools.

Install step 3 – Middle segment



Install central modules, track system and step band. Align to ensure a perfect fit.

Install step 4 – Aesthetic upgrade



Install visible components such as balustrade, decking, cladding, if applicable, and floor plates to make escalator look like new.

Install step 5 – Test and commissioning



Perform site acceptance test and commissioning.

MOVING WALKS

Long stretches become shorter.

Help passengers take a break or speed their pace. Our moving walks use conveyor technology to keep people safe as they move to their destination.





orinoco – moving walk

Max length Rise	Up to 656'-2" (200 m)
Max capacity (people/hour)	8200
Inclination	0° – 6° 10° 12°
Configuration	Pit
Application	Commercial Traffic
Step chain roller	Inside
Location handrail drive	Truss
Handrail shape	U-shape V-shape
Climate conditions	Indoor Outdoor
Nominal step width	32" (800 mm) 40" (1000 mm) 48" (1200 mm) 55" (1400 mm) 63" (1600 mm)
Speed	100 fpm (0.5 m/s) 120 fpm (0.65 m/s) 150 fpm (0.75 m/s)
Balustrade	Slim Robust Metal Sandwich
Aesthetic lights	Balustrade Skirt Truss Ambient cladding Soffit cladding
Traffic lights	Floor plate Decking Newel Column
Safety lights	Step gap Comb plate
Drive unit	Chain drive Direct drive
Usage factor	18 hours/day
Average life span	25 years

Moving walk



Airport Transport Entertainment

orinoco moving walks are dependable with design options allowing the equipment to harmonize with any architecture.

All balustrade configurations (stainless steel metal or glass Robust and Slim) ensure a perfect integration with your building.

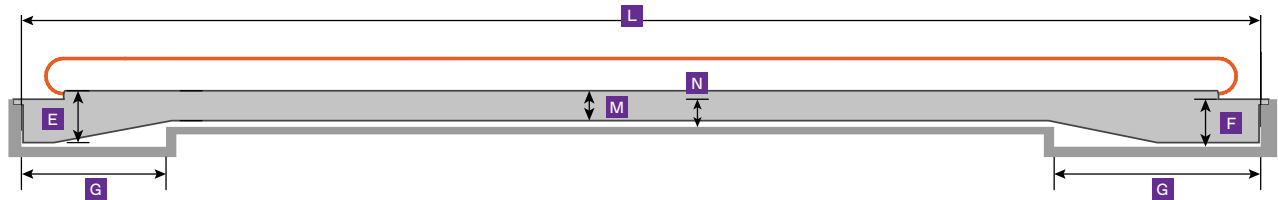
Special widths [including the 63" (1600 mm)] allow large volumes of passengers carrying luggage, with the space to safely pass standing passengers.

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes. Consult your local TK Elevator representative for details. Dimensions above based on 100 fpm (0.5 m/s).

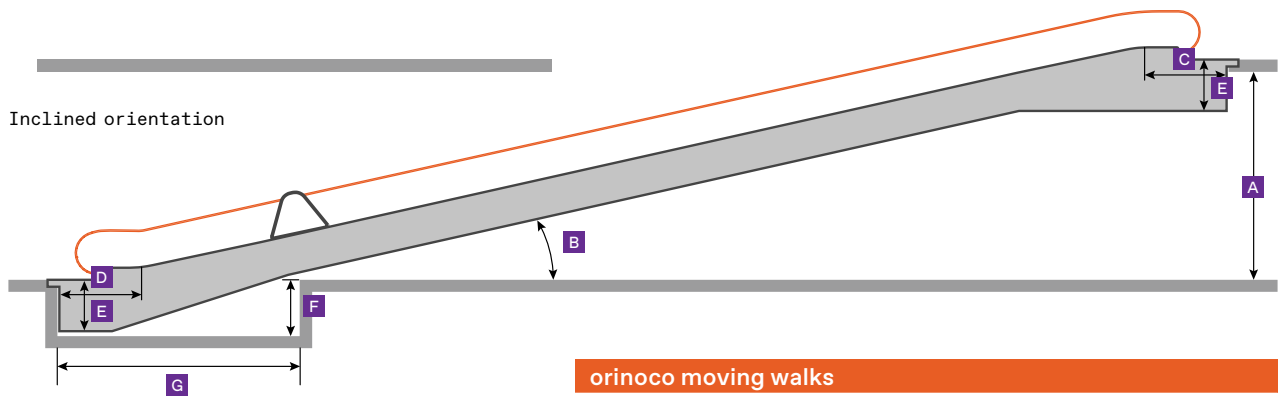
Dimensions and data

orinoco moving walks

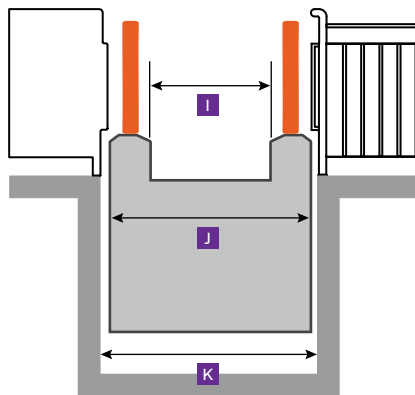
Horizontal orientation



Inclined orientation



Cross-section



- A** Rise
- B** Inclination
- C** Upper end
- D** Lower end
- E** Truss depth
- F** Pit depth
- G** Pit length
- I** Nominal width
- J** Truss width
- K** Pit width
- L** Length
- M** Middle part truss depth
- N** Middle part pit depth

orinoco moving walks

	Horizontal	Inclined
A – Rise (m)	N/A	Up to 19'-8¼" (6)
B – Inclination	0° – 6°	10° 12°
C – Upper end (mm)	N/A	9'-1¾" (2790)
D – Lower end (mm)	N/A	10'-0½" (3060)
L – Length (m)	Up to 656'-2" (200)	N/A
E – Truss depth (mm)	3'-5⅝" (1050)	3'-5⅝" (1050)
F – Pit depth (mm)	3'-9¼" (1150)	3'-9¼" (1150)
G – Pit length (mm)	18'-0⅞" (5500)	20'-0⅜" (6100)
M – Middle part truss depth (mm)	1'-8½" (520)	N/A
N – Middle part pit depth (mm)	2'-2⅞" (670)	N/A

Nominal pallet width (mm)	Truss width (mm)	Pit width (mm)	Persons per hour at 100 fpm (0.5 m/s)	Persons per hour at 125 fpm (0.65 m/s)	Persons per hour at 150 fpm (0.75 m/s)
I	J	K			
32" (800)	4'-4⅜" (1330)	4'-6¾" (1390)	4800	5900	6600
40" (1000)	5'-0¼" (1530)	5'-2⅝" (1590)	6000	7300	8200
48" (1200)	5'-8½" (1740)	5'-10⅞" (1800)	6000	7300	8200
55" (1400)	6'-4⅜" (1940)	6'-6¾" (2000)	6000	7300	8200
63" (1600)	7'-0⅞" (2148)	7'-3" (2208)	6000	7300	8200



iwalk – pit or pit-less moving walk

Max length Rise	Up to 328' (100 m) ¹
Max capacity (people/hour)	7300
Inclination	0° – 3°
Configuration	Shallow pit Pitless
Application	Commercial Traffic
Step chain roller	Not applicable
Location handrail drive	Truss
Handrail shape	U-shape
Climate conditions	Indoor Outdoor
Nominal step width	44" (1100 mm) 55" (1400 mm)
Speed	100 fpm (0.5 m/s) 120 fpm (0.65 m/s)
Balustrade	Slim
Aesthetic lights	Balustrade Skirt
Traffic lights	Floor plate Front skirt Post
Safety lights	Step gap
Drive unit	Direct drive
Usage factor	18 – 20 hours/day
Average life span	15 – 20 years

Dimensional data shown here comply with the current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from national codes. Consult your local TK Elevator representative for details. Dimensions above based on 100 fpm (0.5 m/s). ¹ Reversible only for lengths under 200 feet (61 m) long.

Moving Walk



Airport Transport Entertainment

iwalk, our moving walk, fits anywhere. The slim dimensions require very little construction work, and technical features ensure low energy consumption. This walk is compact enough to allow installation on buildings in operation.

The horizontal iwalk needs only a shallow 15" (380 mm) pit, or can be installed on top of an existing floor. All that's needed for installation are two ramps at each end.

For pit-less applications, it can be easily relocated to different parts of the building depending on traffic needs. It can also be shortened or enlarged.

Thanks to a small and flat comb plate, the risk of tripping is reduced. Unlike traditional moving walks, these seamless transitions allow easy travel with luggage trolleys, strollers or shopping carts.

iwalk incorporates the latest energy-efficient technology including soft-starting, VVVF technology and exclusive LED lighting. And it's lubrication-free, eliminating the risk of spills.

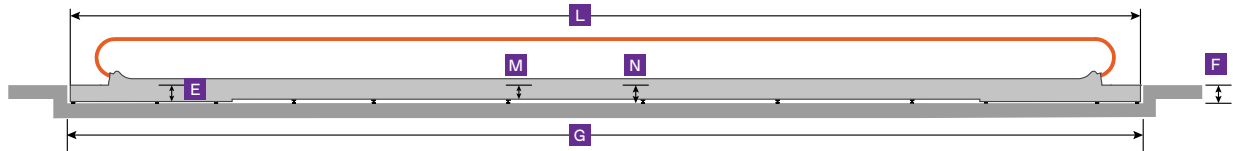
Advantages at a glance:

- Easy to adapt and install
- Lightweight, modular and flexible installation
- Innovative pallet band with efficient drive provides a smooth, safe ride
- Pit-less configuration allows easy relocation and length modification
- Advanced design with no visible screws throughout the moving walk
- Longer balustrades and wider pallets maintain exterior dimensions
- Low risk of passenger tripping due to reduced comb segment height
- Increased inner pallet width allows easy passing for passengers with luggage
- Variable speed operation also available

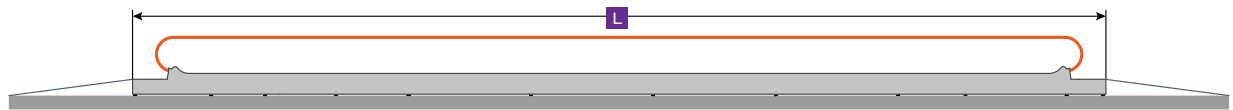
Dimensions and data

iwalk moving walk

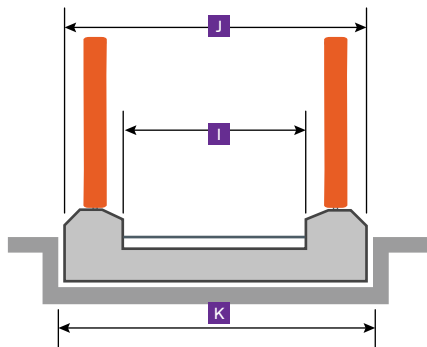
Shallow pit configuration



Pitless configuration



Cross-section



E	Truss depth	K	Pit width
F	Pit depth	L	Length
G	Pit length	M	Middle part truss depth
I	Nominal width	N	Middle part pit depth
J	Truss width		

iwalk moving walks

	Shallow pit	Pitless
A – Rise (m)	N/A	N/A
B – Inclination	0° – 3°	0° – 3°
L – Length (m)	Up to 328'-0" (100)	Up to 328'-0" (100)
E – Truss depth (mm)	1'-2 ³ / ₁₆ " (360)	N/A
F – Pit depth (mm)	1'-3" (380)	N/A
G – Pit length (mm)	Continuous	N/A
M – Middle part truss depth (mm)	1'-2 ³ / ₁₆ " (360)	N/A
N – Middle part pit depth (mm)	1'-3" (380)	N/A

Nominal pallet width (mm) I	Truss width (mm) J	Pit width (mm) K	Persons per hour at 100 fpm (0.5 m/s)	Persons per hour at 125 fpm (0.65 m/s)
44" (1118)	4'-10 ¹⁵ / ₁₆ " (1497)	5'-1 ⁵ / ₈ " (1565)	6000	7300
55" (1397)	5'-11 ¹ / ₁₆ " (1805)	6'-1 ¹ / ₁₆ " (1865)	6000	7300

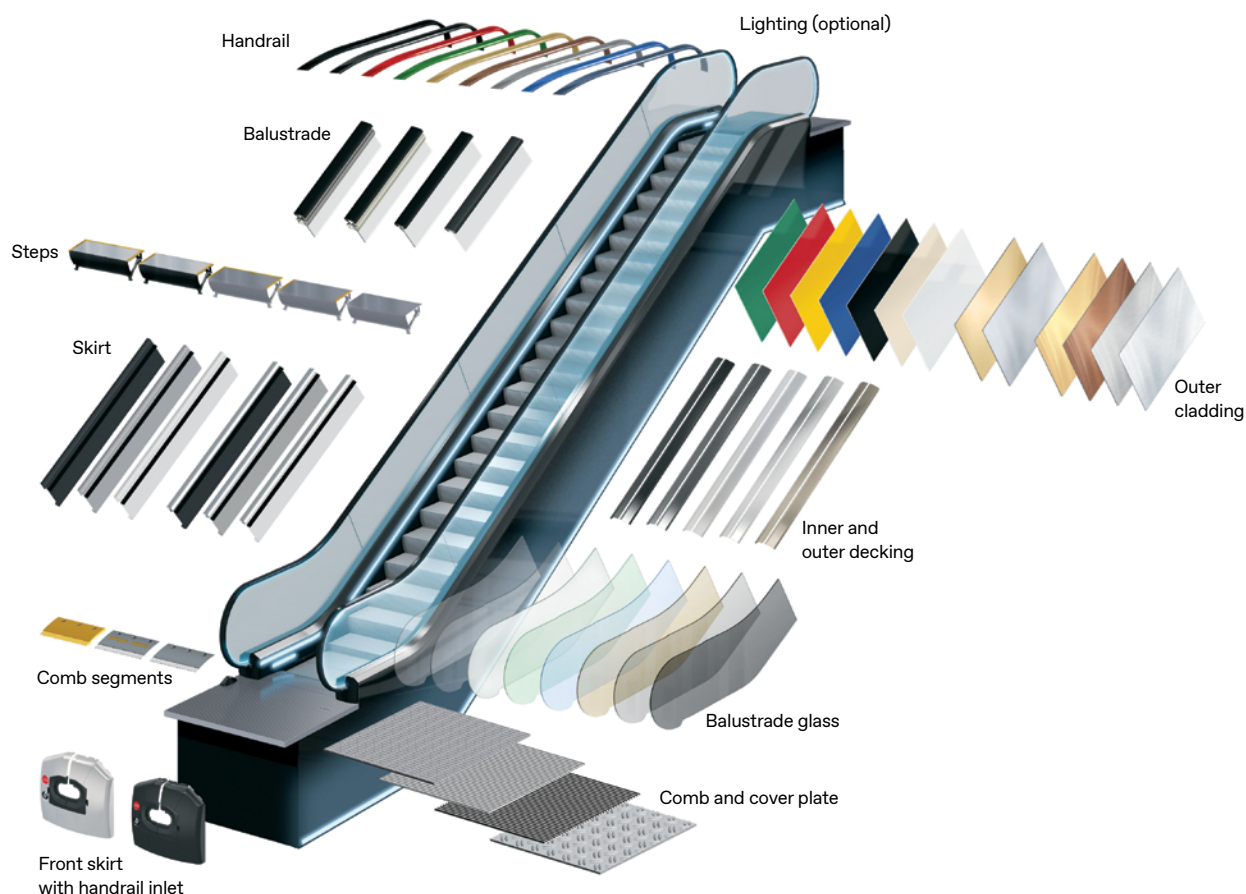
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DESIGN AND INSTALLATION

With our top-class, innovative solutions for escalators and moving walks, we help you shape the buildings of the future – as you want them to be. With endless possibilities.



Design options



Customize your escalator using our many design options. Our experts are available to help you create an escalator that's as unique as your project.

Outer Cladding

Our cladding has nearly invisible joints, screws and rivets. A variety of colors and finishes are available, including gold, copper and ultramarine.

Balustrade glass

Tempered safety glass is available in a wide range of colors, including clear, azure, bronze and dark gray

Handrail

The cover is made either of black synthetic rubber or thermoplastic elastomers (TPE) in five standard colors and three special colors. Additional colors or laser-print branding are available on request.

Comb and cover plate

Customizable combs and cover plates provide a non-slip tread. Options include stainless steel or aluminum with different surface finishes.

Inner and outer decking

Choose between stainless steel or aluminum. Aluminum comes in five standard colors as well as additional colors upon request.

Steps

Comes in two standard configurations – silver or black with yellow demarcation lines. However, any other color is possible upon request.

Safety

Safety Zone

The entry and exit zone must always be kept clear of obstacles. The width must not be less than the width between the centerlines of the handrail plus 8" (200 mm).¹

The length of the zone, measured from the end of the newel, must be no less than twice the distance between the centerlines of the handrail. Space must be provided to accommodate all traffic in the safety zone.

Safety zones

Step width X	Safety zone width Y	Safety zone length Z
24" (600 mm)	3'-5" (1038 mm)	5'-6" (1676 mm)
32" (800 mm)	4'-1" (1242 mm)	6'-10" (2084 mm)
40" (1000 mm)	4'-9" (1446 mm)	8'-2" (2492 mm)

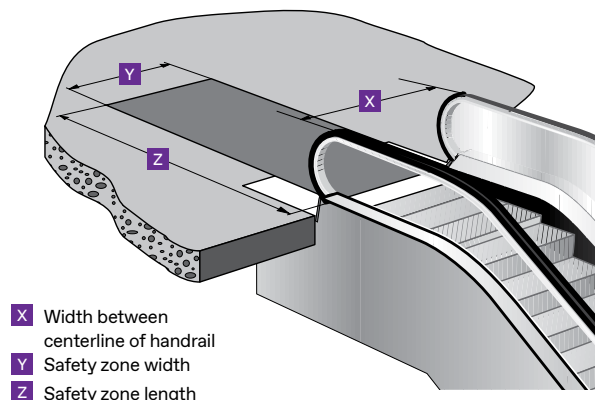
Skirt brushes

Prevents passenger foot entrapment within the step/skirt running clearance. These are featured on all TK escalators.

Headroom clearance

The clearance above the step or pallet band must be at least 7'-0" (2134 mm) at every location as required by code.

Safety zone (no infill panels)



Lighting

For passengers to step safely onto escalators, the step or pallet band must be adequately lit. The ambient building lighting must be at least 50 lux along all parts of the step band. TK Elevator offers various lighting options, including:

- Above the balustrade (under handrail)
- Integrated in the skirt band
- At the comb plate

Escalator safety features

Motion safety	Standard	Option	Proactive safety	Standard	Option	Component protection	Standard	Option
Operational brake on the motor	<input checked="" type="checkbox"/>		Fire alarm shutdown switch ²		<input checked="" type="checkbox"/>	Phase sequence relay	<input checked="" type="checkbox"/>	
Auxiliary brake on the motor or mainshaft ^{2,3}	<input checked="" type="checkbox"/>		Anti-climbing device ²	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Brake function monitoring	<input checked="" type="checkbox"/>	
Step up-thrust device	<input checked="" type="checkbox"/>		Comb plate lighting		<input checked="" type="checkbox"/>	Brake wear monitoring		<input checked="" type="checkbox"/>
Comb plate switch horizontal	<input checked="" type="checkbox"/>		Fall protection/ Safety Curtain ²		<input checked="" type="checkbox"/>	Step chain tensioning switch	<input checked="" type="checkbox"/>	
Comb plate switch vertical	<input checked="" type="checkbox"/>		Protecting gratings	<input checked="" type="checkbox"/>		Cover plate open contacts		<input checked="" type="checkbox"/>
Emergency stop with cover on alarm ²	<input checked="" type="checkbox"/>		Skirt brushes	<input checked="" type="checkbox"/>		Drive chain monitoring ²	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Handrail inlet with flap system	<input checked="" type="checkbox"/>		Step gap lighting	<input checked="" type="checkbox"/>		Handrail broken device/ derailment detection		<input checked="" type="checkbox"/>
Skirt micro switches	<input checked="" type="checkbox"/>		Bi-color traffic lights in inner decking		<input checked="" type="checkbox"/>	Missing step monitoring	<input checked="" type="checkbox"/>	
			Bi-color traffic lights in front of cover plates		<input checked="" type="checkbox"/>	Motor speed monitoring	<input checked="" type="checkbox"/>	
Building interfaces	Standard	Option	Yellow comb segments	<input checked="" type="checkbox"/>		Handrail speed monitoring	<input checked="" type="checkbox"/>	
Bollards		<input checked="" type="checkbox"/>	Step demarcation lines	<input checked="" type="checkbox"/>		Step run guard	<input checked="" type="checkbox"/>	
Sprinklers		<input checked="" type="checkbox"/>	Mats on cover plates		<input checked="" type="checkbox"/>	Earthquake lock ²		<input checked="" type="checkbox"/>
Deflectors for ceilings		<input checked="" type="checkbox"/>	Continuous Step/ Pallet Monitoring		<input checked="" type="checkbox"/>	Wire protection in truss		<input checked="" type="checkbox"/>
Deflectors at the handrail newel		<input checked="" type="checkbox"/>				30 mA FI protection	<input checked="" type="checkbox"/>	
						Full motor protection	<input checked="" type="checkbox"/>	

¹These dimensions are absolute minimums. An infill panel must be installed.

² Depending on local code requirements

³ Standard above 6 m

Pre-installation overview

Travel speeds and transport capacities

Escalators and moving walks continuously move passengers, giving them greater transport capacity than elevators.

Travel speed of escalators is limited by code to 100 fpm (0.5 m/s). For moving walks with 0° – 8° inclination, the speed can be increased up to 180 fpm (0.9 m/s).

Travel heights and inclines

Escalators: With a rise of only 6'-0" (1829 mm), an escalator can considerably improve building access. TK Elevator has designed escalators to reach a rise of 164'-0" (50 m). Code limits the inclination angle to 30° in the United States and Canada. A minimum of two flat steps is required at both landings per ASME code. Special design for three flat steps or more can be provided if requested.

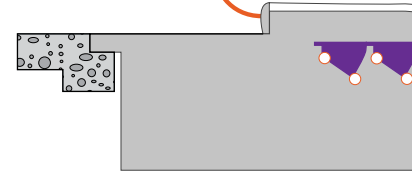
Moving Walks: Inclined moving walks in shopping centers and retail applications are permitted a maximum angle of 12°. For extended travel distances, such as trade fairs and airports, horizontal moving walks allow wider pallets, and are the most efficient option.

Step/Pallet widths

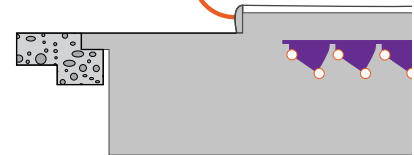
Step/Pallet width refers to usable interior space (skirt to skirt) for passengers. The most demanding step width in the USA and Canada is 40" (1016 mm) to allow two rows of passengers. In locations with space restrictions, 32" (800 mm) or 24" (600 mm) can be installed.

The predominant use of moving walks is in airports where passengers carry hand luggage, making the 55" pallet width the preferred solution.

Two flat step configuration



Three flat step configuration*



* Three flat step configuration under request only.

Outdoor applications

Designed for all weather conditions

Our outdoor application escalators and moving walks maintain performance and reliability in all weather conditions, including extreme heat and below-freezing temperatures. There are no limitations on features and customizations.

All-weather features

Rugged features such as protective chain covers, automatic lubrication and truss corrosion protection protect your equipment and ensure reliable performance

Designed for passenger safety

Optional heating systems prevent ice formation on steps and floor plates, helping maintain the equipment while ensuring safe conditions for passengers.



Preparations by others



When possible, schedule your escalator delivery before installing floor slabs, ceilings, roofs or any overhead obstructions.

Normally, completely assembled escalators or moving walks are moved in by crane through a suitable overhead opening.

In most cases, this allows the equipment to be assembled off site, removing disruptions to other subcontractors. Another option is bringing the escalator or moving walk in through a suitable opening at the ground floor. It's important that the route to

the assembly location within the building be free of obstacles and level. The ceiling should also be able to support the hoist load. Otherwise, appropriate shoring must be provided.

Ensure the building floor can bear the escalator's transport weight. Otherwise, additional floor underpinning support is required during installation.

To have your system delivered and assembled in a timely manner, please take note of the following while planning:

- When it's not possible to bring a complete escalator or moving walk into the building, the balustrade must be dismantled before delivery.
- The length of some escalators or moving walks require their manufacturing with a split and installation in sections.

You'll be notified of the location and size of required ceiling and roof openings. Please ensure the required opening dimensions are available.

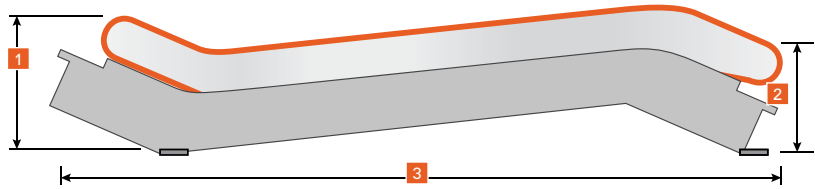
When designing support recesses, take into account the support loads. They're shown on the installation drawing. At those locations where escalator or moving walk supports will be placed, the supports must be able to bear the weight including 105 lbs/ft² traffic load. When preparing the supporting structures, the dimensions and reactions on our installation plans must be precisely met.

Intermediate supports are needed on escalators with a considerable travel height and on long moving walks. You'll be informed if an intermediate support is required. We'll assist with determining the proper location.

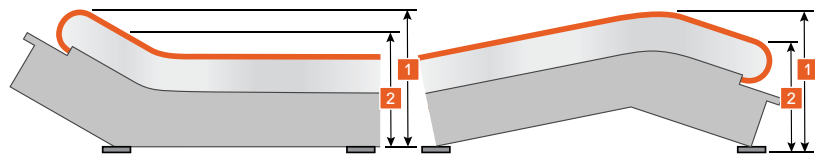
Typically, the following intermediate support is required:

- Two flat steps design: $H > 26'-6"$ (8077 mm)
- Three flat steps design: $H > 24'-10"$ (7569 mm)

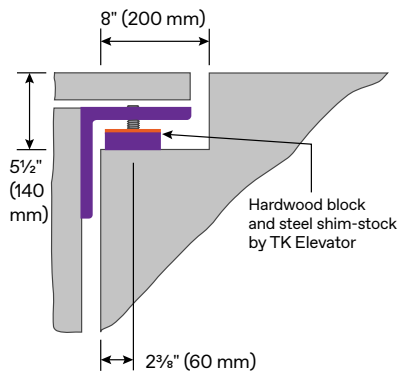
Completely assembled escalator



Split escalator

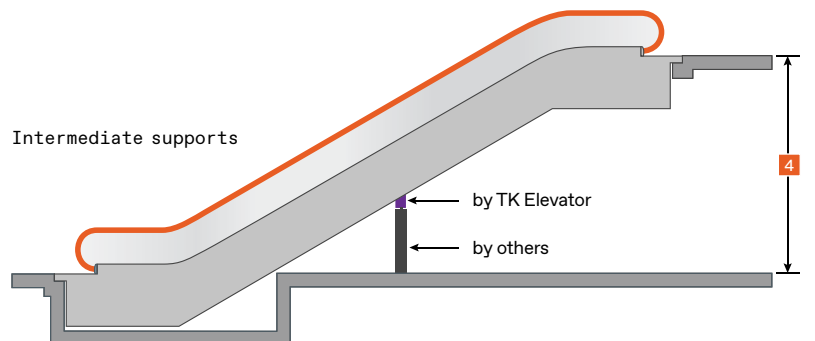


Top and bottom supports

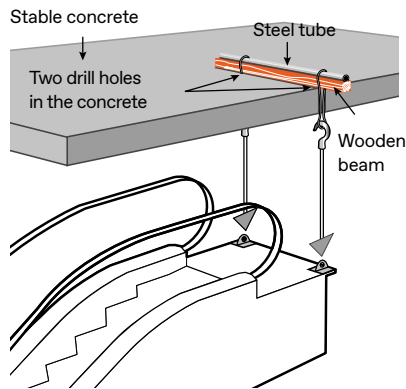


- 1 Transport height with balustrade
- 2 Transport height with balustrade removed
- 3 Transport length
- 4 Floor-to-floor height

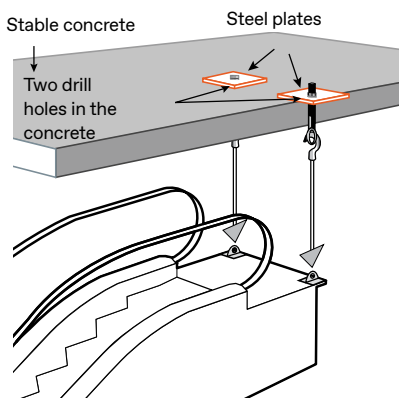
Intermediate supports



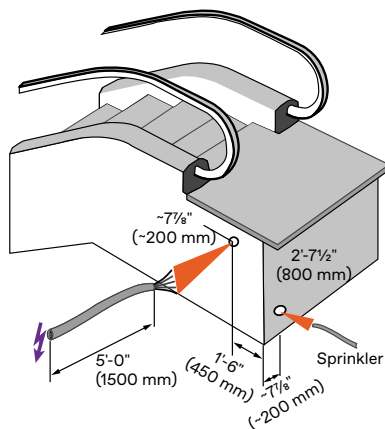
Pick-up points with wooden beam



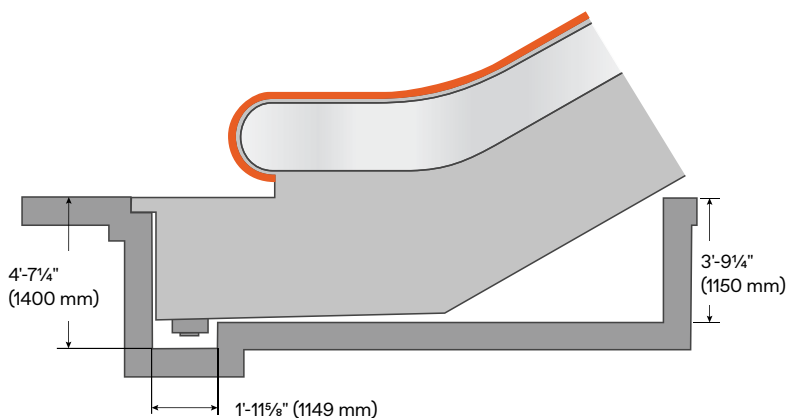
Pick-up points with threaded rods



Electrical connections



For outdoor exposed escalators



You'll be responsible for fitting pick-up points plus hoisting and supporting the escalator during assembly. Speak to your local TK Elevator representative for size and location. These should be located exactly above the center of the supporting points. For systems with several supporting structures, please plan for additional pick-up points above the intermediate supports. All pick-up points must be capable of taking a load strain of 11,240 lbs (50 kN).

The exterior cladding of the truss is prepared by others unless otherwise specified. Weight of the cladding must not exceed 5 lb/ft² (25 kg/m²).

Our diagram shows where escalators and moving walks are connected to the power supply. The power supply is always located at the upper well. Electrical cables are inserted at a distance of 1'-6" (450 mm) on the side of the support and the length of the cable inside of the escalator must be about 5'-0" (1500 mm).

With complex controls, such as those required in transit installations, the escalator control equipment may be installed in a separate room. The power supply cable must be installed in this separate control room.

For additional soffit lighting, a separate power supply must be provided. The power connection must be provided by an authorized electrician assigned by the owner's representative. If escalator truss or comb plate heaters are provided, a separate 220 VAC power supply is required.

An optional safety feature is the installation of a sprinkler piping within the escalator or moving walk.

A type-proofed oil / water separator is essential for escalators and moving walks with outdoor exposure. TK Elevator supplies an oil / water separator in the lower well for all outdoor-exposure products. At the construction site, a recess and drain must be provided for the oil separator in the pit.

In the escalator threshold areas, a railing must be installed by others. The distance to the escalator handrail must be at least 4" (100 mm).

Required work by other trades

Escalators

- Provision of proper building dimensions and suitable floor openings, properly framed with suitable reactions and finished in accordance with escalator shop drawings. Variations not to exceed 1" at any point.
- Supporting structure for escalators and enclosure walls, external railing, guards, closures, shutters and smoke barriers as required.
- Waterproofed lower well space and lower pit drainage as required.
- Fire-rated exterior cladding of truss and finish from the edges of escalator deck covers, including ends, sides and bottom of truss in accordance with applicable and standard weight restrictions (max. 5 lbs per square foot).
- Access panels or doors to interior of escalator if required by unusual layout conditions.
- Provision of flexible in-fill and finished flooring next to floor plates and escalator after installation.
- Cutting of floors, walls, ceilings or partitions together with any repairs made necessary by such cutting.
- Painting and finish work required beyond that included in this section.
- Electrical service to upper well including three-phase main power supply and lockable, fused disconnects to each controller. Provide single-phase 120 VAC electrical service and lockable, fused disconnect for light and convenience outlet in the upper well and all other electrical devices that are not a part of the escalator proper but may be required by local authorities. Separate 220V AC to be supplied with lockable, fused disconnect for truss or comb plate heating when required.
- Provision of wiring and conduit from the closest wellway of each escalator group or single escalator to the firefighters' control room or console as required. Coordinate with escalator contractor for size, number and location of conduit.
- Other work required for installation of the escalator(s) including, but not limited to, required changes to sprinklers, lighting, electrical, air conditioning and heating systems. Provide barriers for open wellways during construction per OSHA regulations.
- Protection of escalator truss, steps, landing plates, balustrades, handrail and special metal finishes from damage during construction.

Moving walks

- Provision of proper building dimensions and suitable floor openings, properly framed with suitable reactions and finished in accordance with moving walk shop drawings. Variations not to exceed 1" at any point.
- Supporting structure for the moving walks and enclosure walls, external railing, guards, closures, shutters and smoke barriers as required.
- Waterproofed lower well space and lower pit drainage as required.
- Fire-rated exterior cladding of truss and finish from the edges of moving walk deck covers, including ends, sides and bottom of truss in accordance with applicable and standard weight restrictions (max. 5 lbs per square foot).
- Access panels or doors to interior of moving walk if required by unusual layout conditions.
- Provision of flexible in-fill and finished flooring next to floor plates and moving walk after installation.
- Cutting of floors, walls, ceilings or partitions together with any repairs made necessary by such cutting.
- Painting and finish work required beyond that included in this section.
- Electrical service to upper well including three-phase main power supply and lockable, fused disconnects to each controller. Provide single-phase 120 VAC electrical service and lockable, fused disconnect for light and convenience outlet in the upper well and all other electrical devices not a part of the moving walk proper that may be required by local authorities.
- Provision of wiring and conduit from the closest wellway of each moving walk group or single moving walk to the firefighters' control room and console as required. Coordinate with moving walk contractor for size, number and location of conduit.
- Other work required for installation of the moving walk(s) including, but not limited to, required changes to sprinklers, lighting, electrical, air conditioning and heating systems. Provide barriers for open wellways during construction per OSHA regulations.
- Protection of moving walk truss, steps, landing plates, balustrades, handrail and special metal finishes from damage during construction.
- All engineering costs to determine and identify structural load capacities and restrictions will be by others.



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