

Planning Guide for Escalators and Moving Walks The best solutions require step-by-step preparation















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Basic Planning

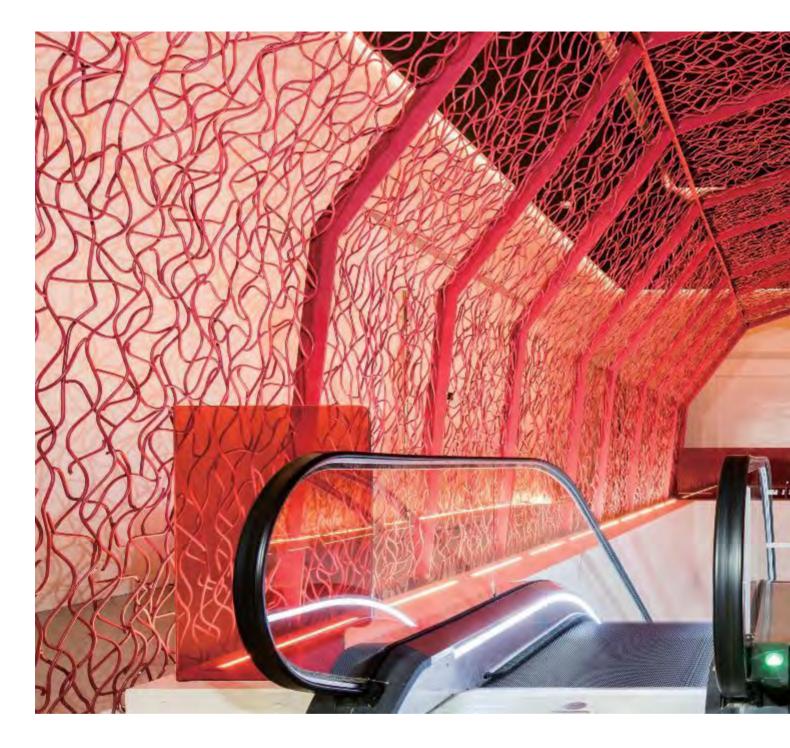
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Introduction

No invention has had more of an influence on shopping and urban mobility than the escalator. Over the past 100 years, the escalator has opened up a whole new world as a simple means of connecting different floors – a world we now move around in as a matter of course.



The escalator was the most radical element in this architectural change process, and even today it is still the most popular installation in our environment of public mobility – even if it is the one least perceived by its users.

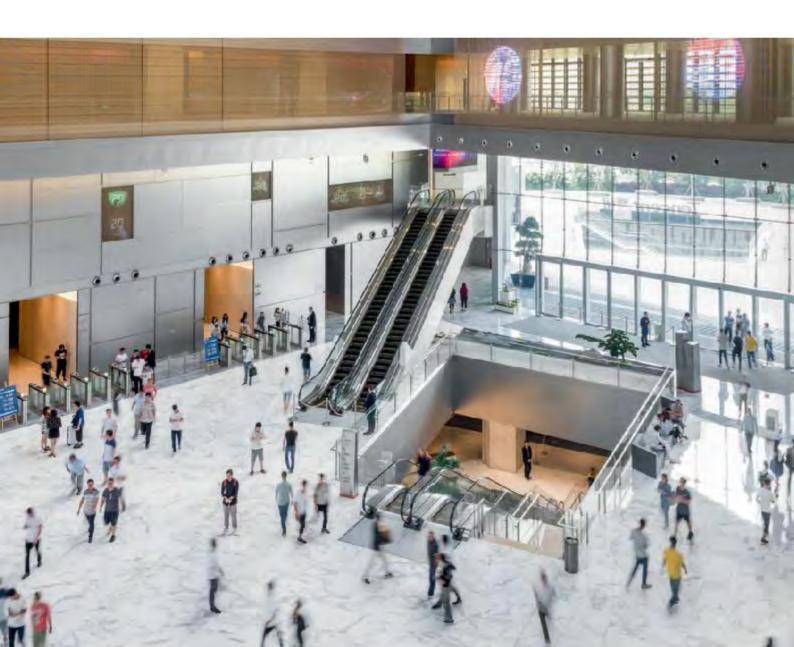
Escalators and moving walks still play a key role in transporting large numbers of people. Planning escalators and moving walks correctly in shopping centers, trade fair centers, stores, movie theaters, and public transportation facilities is essential for business success and the smooth flow of people. **This brochure is your universal guide to all the main process stages, from project planning to commissioning.**

Why Escalators and Moving Walks Matter



Commercial sector

Escalators and moving walks are used to increase customer density and thus help boost sales in buildings used for commercial purposes. The practice on page 7 taken from functional examples clearly illustrate how and why.





Grocery store

A retailer provided access to the upper floor of his store using two comfortable and attractively designed glass elevators. Moving walks had not been installed for space reasons. Even after the elevators had been in operation for some time, the budgeted sales figures on the upper floor were not achieved due to insufficient customer flow.

Once moving walks were installed, sales increased several-fold.



HOPSCA

Complexes of hotels, offices, parks, shopping malls, clubs, and apartments, known as HOPSCA, are sprouting up as investment in commercial real estate increases all around the world. In addition to escalators stopping at each floor, multi-floor escalators can bring passengers directly to the destination floor. This can help distribute the vertical passenger flow more evenly and benefit the passengers to gain a higher mobility efficiency inside the giant HOPSCA facility.

Department store

A three-story department store in the center of a European capital had three elevator units operated by a single control system. The objective here was to boost sales on the upper floors by 20 percent by increasing customer flow.

At the planners' recommendation, the owner opted to install escalators. As a result, customer flow was substantially increased and sales rose by more than 30 percent.



Underground parking garage

A centrally located department store with a food hall and a multistory underground parking garage was unable to achieve its targeted turnover objectives in the food hall. Internal analyses showed that elevator access as a whole was insufficient. Using moving walks to provide access to all underground levels solved the problem as customers were able to get directly to their cars with their shopping carts. The sizable investment into the retrofit installation was justified by the increase in sales.

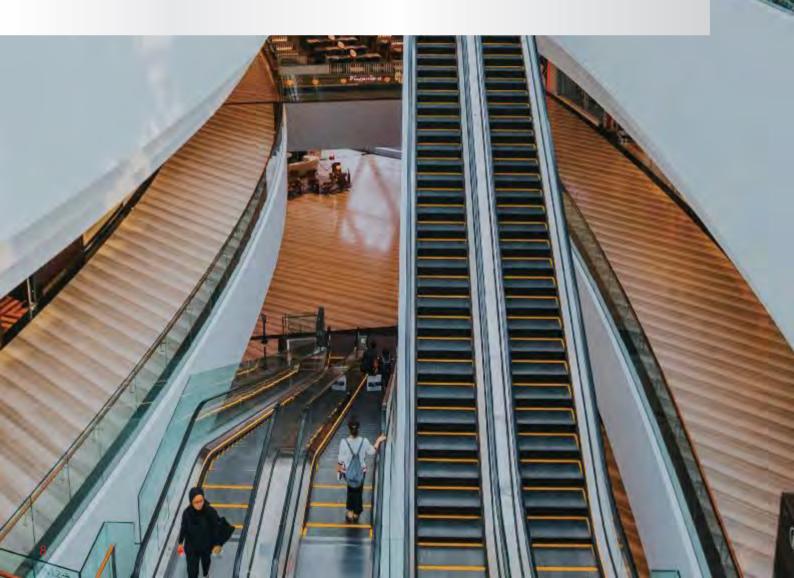


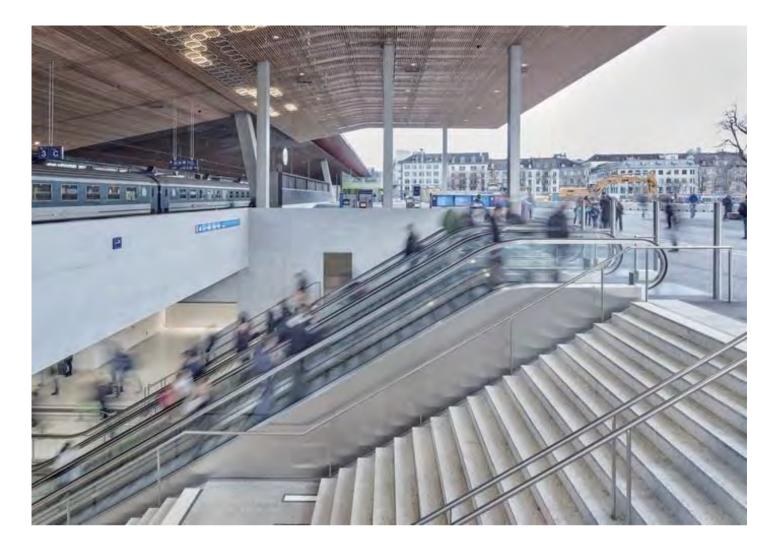
Why Escalators and Moving Walks Matter



Public sector

Transporting large numbers of people efficiently is the top priority in public transportation. Schindler offers customized solutions for this area of application. Our escalator experts can tell you all about the special configuration options.





Escalators, moving walks, and elevators

In the commercial and public sector, escalators and moving walks as well as elevators ensure a smooth traffic flow. Our experts will suggest the right choice and combination to suit your specific requirements.

Advantages of escalators and moving walks

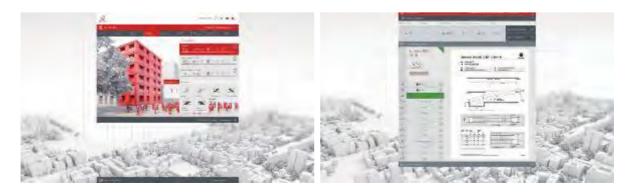
- Escalators and moving walks with a moving step/ pallet band look inviting.
- Escalators and moving walks help channel passenger flow.
- Escalators and moving walks have a high transportation capacity.
- Escalators and moving walks are open and convey people continuously.
- Escalators and moving walks ensure that all floors are frequented evenly.

Interactive Configuration With Schindler Digital Plan & Design



By providing us with some very simple details about your project, Schindler Digital Plan & Design will recommend Schindler product solutions that best fit yourdesign. Schindler Digital Plan & Design is our online planning and design tool. You can download your specific escalator or elevator planning data in the form of CAD drawings (dwg, dxf), BIM models (ifc), or written specifications (docx). With just a few clicks, we are able to provide you with a product specification and a detailed layoutdrawing.

Website: https://digitalplan.schindler.com/



Compose Your Building Using BIM



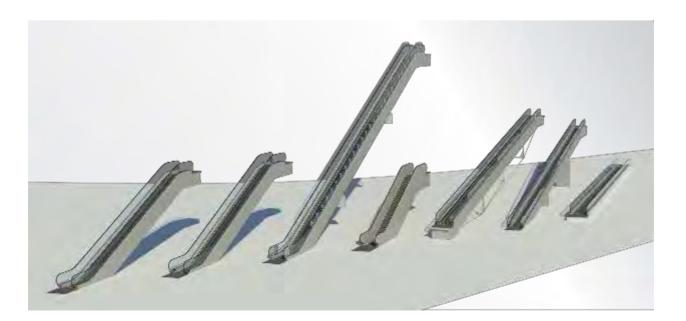
Building Information Modeling is a highly collaborative process that allows multiple stakeholders and AEC (architecture, engineering, construction) professionals to collaborate on building planning, design, and construction within a single 3D model.

Schindler offers escalator and moving walk BIM at LOD 300, providing a detailed view of the content and

reliability of models at various stages in the design and construction process.

Schindler's preferred solution for BIM models is Autodesk Revit.

3D models in this brochure were created by Schindler's BIM service.



Basic Planning Positioning escalators and moving walks within a building

100

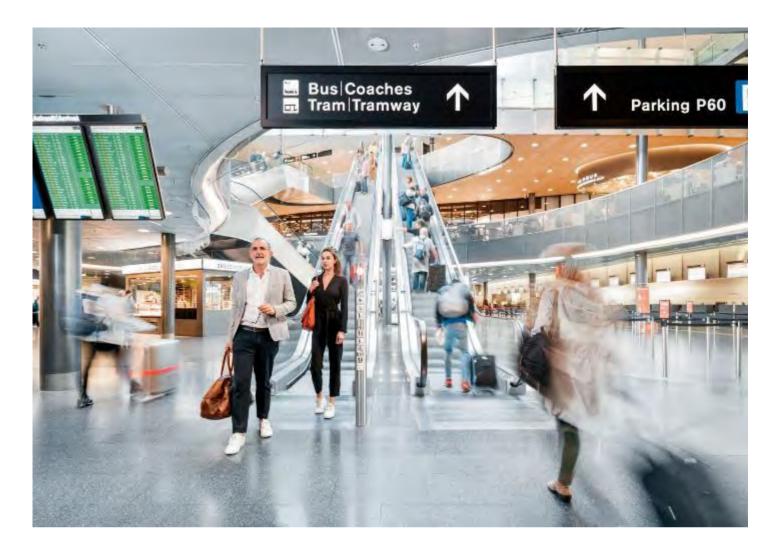
100m

Basically, to achieve optimal customer density, the movement of customers within the building has to be facilitated.

Distances in excess of 50 m should be avoided on commercial premises and in office buildings. The figures below show basic escalator arrangements.

Customer circulation on sales premises depends on different criteria, such as the layout of the goods on sale. Fast-moving goods are usually sold in areas that are farther away from escalators.

We recommend working closely with specialized store fitters or planners.



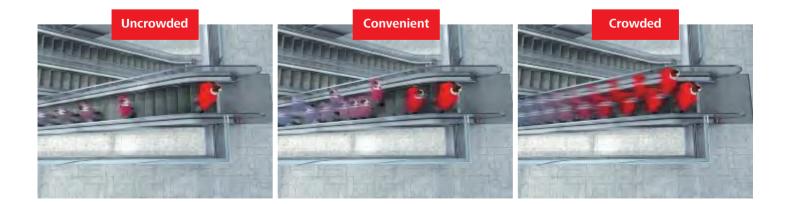
Escalators or moving walks?

Moving walks should be provided as a matter of principle whenever shopping or baggage carts are to be transported.

How many escalators or moving walks?

To determine the transportation requirements (persons per hour), you need to consider the following parameters:

- Peak traffic times (office opening and closing hours)
- Population factor based on net usable area
- Customer turnover rate per floor in department stores
- Level of traveling comfort required on the unit (uncrowded, convenient, crowded)



Basic Planning

Once the transportation requirements have been stipulated, you can determine the number of escalators or moving walks required.

The theoretical transportation capacity depends on the width and speed of the escalators. The effective transportation capacity depends on passenger density and step width. Please refer to the table below, which is in accordance with EN 115-1. Please consider the peak hour passenger traffic in order to determine the number of required escalators. The capacity of moving walks is calculated accordingly, taking into account transportation of shopping and baggage carts. The safe integration of escalators and moving walks in buildings is based on local standards. In most countries, EN 115-1 is the applied safety standard. The valid standard in China is GB 16899, while A17.1 is applicable in the US and Canada. Additional local rules may apply. Please contact the local Schindler sales office.

Step/pallet width [m]	Nominal speed v [m/s]				
	0.50	0.65	0.75		
0.60	3,600 persons/h	4,400 persons/h	4,900 persons/h		
0.80	4,800 persons/h	5,900 persons/h	6,600 persons/h		
1.00	6,000 persons/h	7,300 persons/h	8,200 persons/h		

Maximum capacity according to EN 115-1

Note 1: Use of shopping and baggage carts will reduce the capacity by approximately 80%.

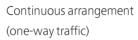
Note 2: For moving walks with pallets in excess of 1.00 m, the capacity is not increased as the users need to hold the handrail. The additional width is principally to enable the use of shopping and baggagecarts.

Basic Planning Arrangement of escalators and moving walks



Single unit

The single unit is used to connect two levels. It is suitable for buildings with passenger traffic flowing mainly in one direction. Flexible adjustment to traffic flow (e.g., up in the morning and down in the evening) is possible.

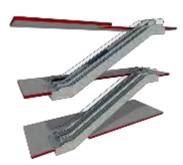


This arrangement is used mainly in smaller department stores to link three sales levels. It requires more space than the interrupted arrangement.



Interrupted arrangement (one-way traffic)

While relatively inconvenient for the user, for the owner of the department store it provides the advantage that due to the spatial separation of the upward and downward directions, customers have to walk past specially placed merchandise displays.



Parallel, interrupted arrangement (two-way traffic)

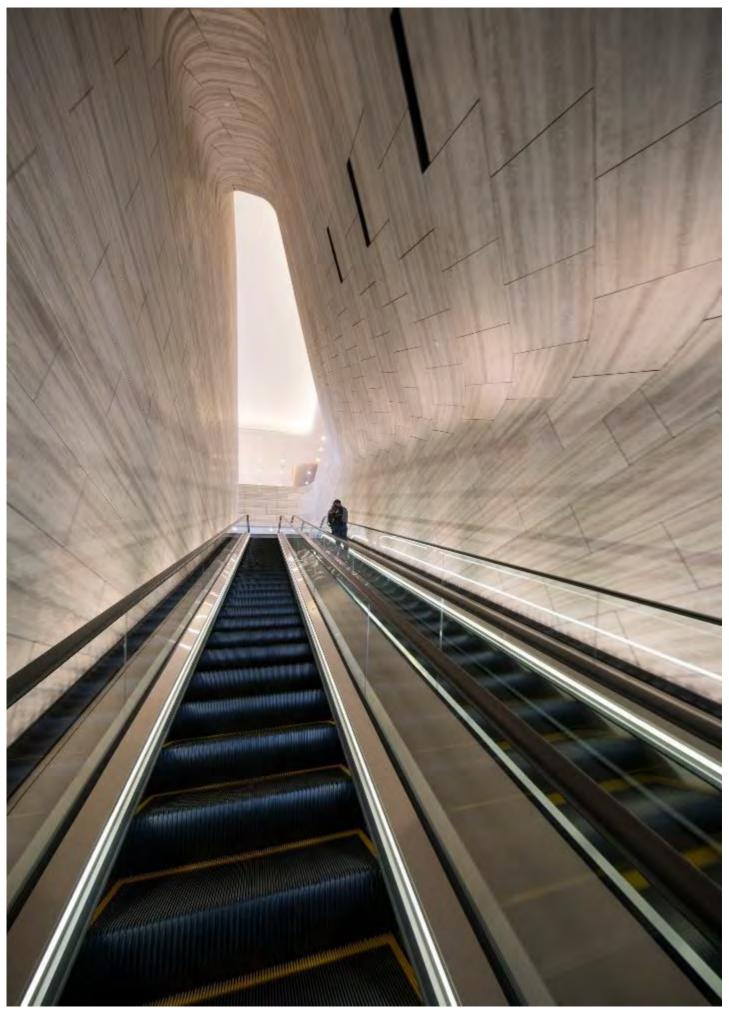
This arrangement is used mainly in department stores and public transportation buildings with heavy traffic volumes. When there are three or more escalators or moving walks, it should be possible to reverse the direction of travel depending on the traffic flow.



Crisscross, continuous arrangement (two-way traffic)

This type of installation is the one used most frequently as it allows customers to travel quickly to the upper floors without any waiting time.

Depending on how the escalators are positioned, the store fitter can open up the view onto the shop floor to stimulate customer interest in the goods on display.



Basic Planning Proper inclination

Escalators

Inclinations of 30° and 35° are the common international standard for escalators in the commercial sector.

Inclinations of 30° and 27.3° are the common international standard for escalators in the public transportation sector.

30° inclination

This is the most popular escalator inclination. It balances well the passenger comfort, safety and overall length of the escalator. It has been commonly used in all kinds of facilities.

35° inclination

The 35° escalator is the most space-efficient solution. However, this inclination is perceived as too steep if rises exceed 6 m – particularly in downward travel. According to EN 115-1, a 35° inclination is not permissible for rises above 6 m.

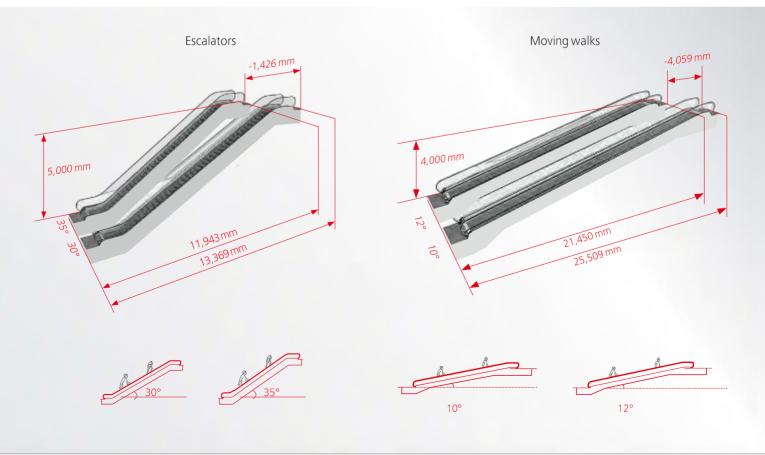
27.3° inclination

This inclination is the normal angle for a staircase. It is ideal when the escalator is installed adjacent to a staircase as it provides a good alignment between the escalator truss and the staircase. However it demands more space in the facility.

Moving walks

Inclinations of 10°, 11°, and 12° are the common international standard for inclined moving walks. Users find that a 10° inclination provides the most comfortable ride. A 12° inclination is used when space is limited.

Horizontal moving walks without transition curves can generally be provided for inclinations between 0° and 6°.



Basic Planning Optimal step and pallet widths

Optimal step and pallet widths	Escalator	Inclined moving walk (10°–12°)	Horizontal moving walk (0°–6°)		
600 mm	Used for very restricted space	-	_		
800 mm	Used for less frequented units or where space is restricted	Used where space is restricted and shopping carts with a max. overall width of 400 mm are used	-		
1,000mm	Provides the user unimpeded access to the step band, even with baggage and shopping bags	Best compromise between space and capacity for shopping carts for a max. overall width of up to 600 mm	Used for restricted space		
1,100mm		Provides unimpeded access and allows shopping carts with a max. overall width of up to 700mm	-		
1,200mm	-	_	Best compromise between space and transportation capacity: space for one passenger beside another pushing a baggage cart		
1,400mm	_	_	Provides unimpeded access and allows two passengers with baggage carts side by side		

Basic Planning Optimal speed

Speed not only has a considerable impact on the potential transportation capacity of escalators and moving walks, it also influences the space requirements. The tables below summarize the different product configurations depending on speed.

0.5 m/s for continuous customer flow

This is the optimal speed for all escalators and moving walks in the commercial sector. The combination of sufficient transportation capacity, optimal safety, and minimum space requirement makes this speed the worldwide standard for this application.

Escalators: table according to EN 115-1 (other national regulations can be met)

Rise	Speed	Maximum inclination	Horizontal step run [mm]	Radii of cu	irvature [m]
	CU CU	1.30°			
	≤ 0.5 m/s	35°	800	$R \ge 1$	R bottom R≥1
H ≤ 6 m	> 0.5 ≤ 0.65 m/s	30°	1,200	$R \ge 1.5$	$R \ge 1$
	$> 0.65 \le 0.75 \text{m/s}$	30°	1,600	R≥2.6	$R \ge 2$
	≤ 0.5 m/s	30°	1,200	$R \ge 1$	$R \ge 1$
H > 6 m	$> 0.5 \le 0.65$ m/s	30°	1,200	R≥1.5	$R \ge 1$
	$> 0.65 \le 0.75 \text{m/s}$	30°	1,600	$R \ge 2.6$	$R \ge 2$

Moving walks: table according to EN 115-1 (other national regulations can be met) No regulation for radii of curvature

Rise	Speed	Inclination	Horizontal pallet run [mm]		
		<u>B</u>			
	≤ 0.75 m/s*	0°—6°	not required		
Not limited			400 at the top		
by standards	$\leq 0.5 \mathrm{m/s^{**}}$	10°-12°	1,600 at top and bottom		
			pallet width≤1,100		

* v \leq 0.65 m/s is recommended

** In the case of moving walk operation with shopping or baggage carts

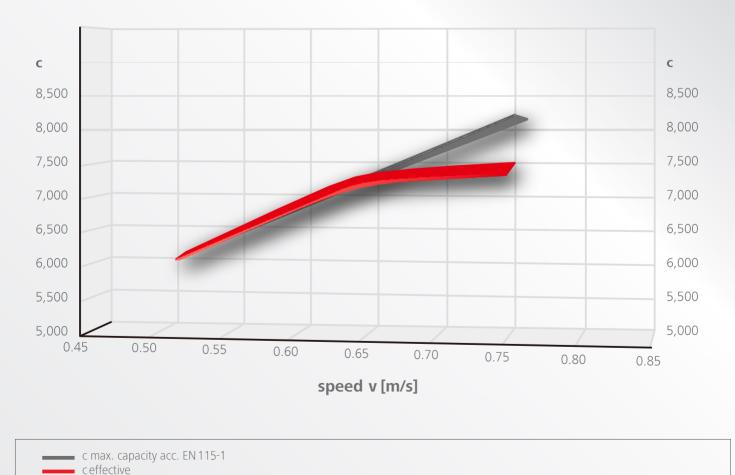
Basic Planning Optimal speed

0.6 or 0.65 m/s for intermittent transportation requirements

This speed is recommended for intermittent passenger arrivals, as at railway stations or subway stations. It has also proven effective at trade fair centers. Longer horizontal runs and larger transition curves are required at these speeds to guarantee highest safety and an optimal loading factor of the escalator or moving walk.

0.75 m/s for extreme transportation capacity

Although speeds up to 0.75 m/s are possible, they are not recommended as the effective transportation capacity will not increase much further and there is an increased danger of children or elderly people tripping or falling in the landing areas.



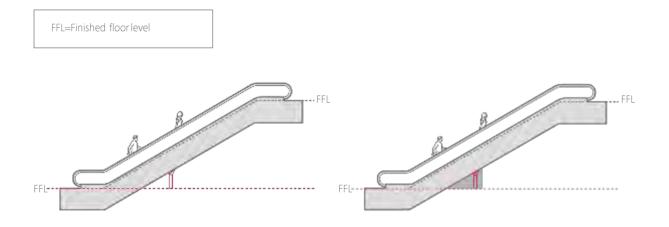
Transportation capacity c (persons / h) as a function of speed c = theoretical transportation capacity (persons/h) for a nominal width of 1,000 mm

v = speed in m/s

Basic Planning Escalators and moving walks with long distances between end supports

In the case of higher rises, EN 115-1 requires an intermediate support in order to minimize truss deflection. The rules as to when to apply intermediate supports are indicated in the product-specific Schindler layout drawings.

In order to optimize building space, intermediate supports can be positioned near the bottom pit. Our experts can help you determine the solution that best fits your building.



Detailed Planning



Standards

The European EN 115-1 standard defines the safe structural design and safe installation of escalators and moving walks in buildings. The planning instructions in this brochure refer to these regulations. The standardcompliant inclination and speed have already been discussed in the sections "Proper inclination" and "Optimal speed"

Transportation of wheelchairs and baby carriages

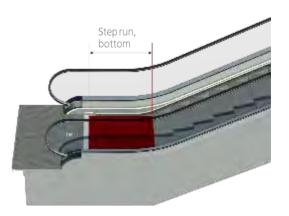
Escalators and moving walks are not suitable for transporting wheelchairs and baby carriages. It is recommended to post a sign in the access area of escalators and moving walks indicating where the nearest elevators are located.

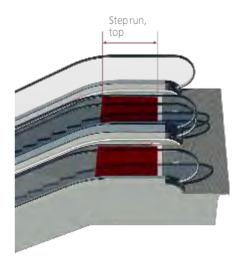
Space requirement

Step/pallet runs and transition radii

The correct number of horizontal steps/pallets in the landing areas (i.e., the step/pallet run) as well as the correct radius between horizontal and inclined sections of escalators and inclined moving walks according to EN 115-1 depend on the rise, the inclination, and the rated speed.

The standard-compliant step/pallet run and inclination radius are indicated on page 19.



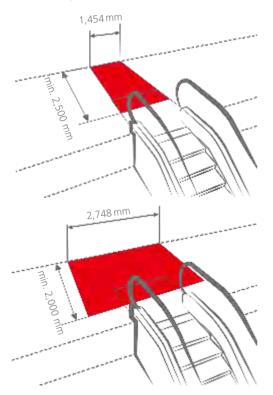


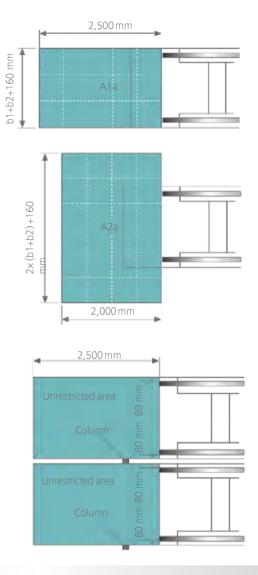
Detailed Planning Free space

Free space

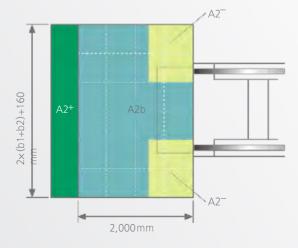
To ensure safe use of the escalators and moving walks, a sufficient amount of free space must be provided at the upper and lower landings (see figures for minimum dimensions according to EN 115-1).

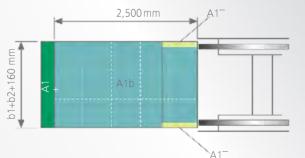
Examples based on a Schindler 9300 escalator with a step width of 1,000 mm





According to EN 115-1, if fixed passenger guide bars are placed inside the unrestricted area, the size of the unrestricted area shall remain the same and in this case be extended in length (see figures below).





b1 acc. to EN 115-1 = distance between the handrail center lines b2 acc. to EN 115-1 = width of the handrail

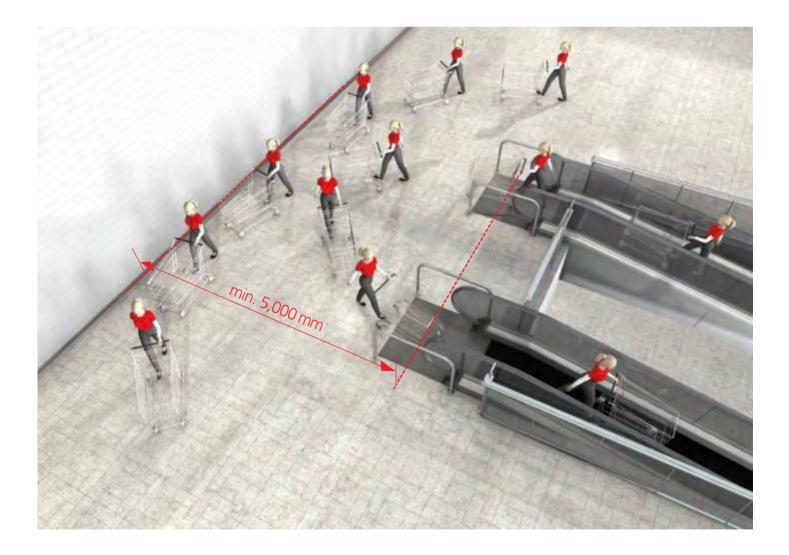
A1 = size of unrestricted area

A2 = size of unrestricted area with reduced depth A⁺ = $\sum A^{-}$

Please refer to page 52 to 57 for detailed information on 'Barriers to Prevent Access of Shopping and Baggage Carts'

Detailed Planning Free space

For moving walks that are expected to have a high traffic volume and that are also designed for transporting shopping and baggage carts, the free spaces **recommended by Schindler** should have a length of at least 5 m. Passenger guide bars, as shown in the picture below, need to be installed outside the free space, otherwise special regulations according to EN 115-4 apply. Fixed stairs are prohibited in the unrestricted area. This area must be flat. A maximum inclination of 6° is permissible.



Detailed Planning Building interfaces

Building interfaces and connections to other installations Building interfaces

The schematic drawing shows all dimensions that need to be indicated in your building drawings. They need to match the dimensions as given in our layout drawings.

Electrical connections

The electrical connection is generally made at the upper escalator/moving walk station. The number and minimum cross-section of the connecting cables are specified in our layout drawing. The supply connection is to be provided by the customer and carried out by an authorized electrician.

Sprinklers

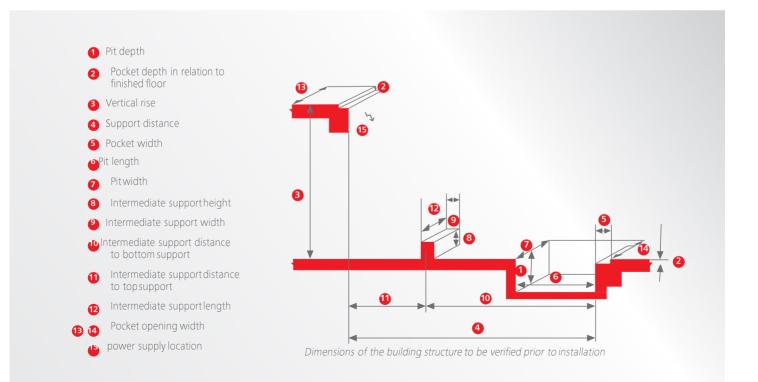
If required by the customer, sprinkler tubing can optionally be fitted to the escalator/moving walk. The installation of the sprinkler heads and the connection of the sprinkler tubing are to be provided by the customer and carried out by an authorized specialist.

Fire control system

The applicable national regulations for commissioning fire control systems must be observed.

Oil separator

An oil separator has to be fitted when installing escalators/moving walks outdoors. If the oil separator is supplied by Schindler (optional), the customer must provide a recess in the escalator/moving walk pit and a water drain.



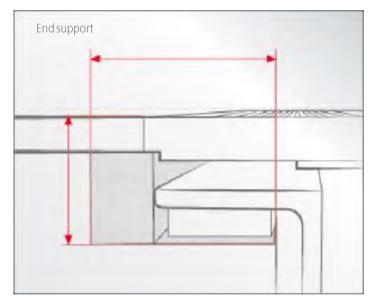
Detailed Planning Building interfaces

Delivery modes

In the case of truck delivery, the escalator is delivered in one part with balustrades assembled.

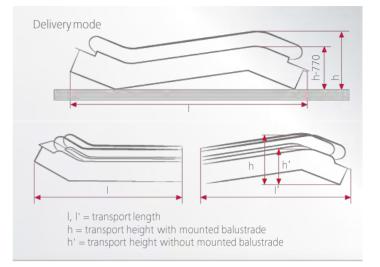
If there is insufficient clearance, the escalator/moving walk can be supplied without mounted balustrades.

In the case of long escalators/moving walks or restricted space conditions, the escalator/moving walk can be delivered in two or more parts. However, due to the increased transportation and assembly costs, this form of delivery should be used only where unavoidable.



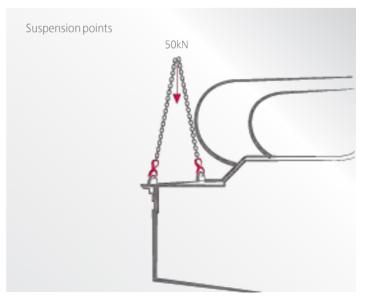
Suspension points to be provided by the customer

Suspension points for pulley blocks for the proper movement and placement of the escalator/moving walk are to be provided by the customer. The suspension points must be positioned along the symmetry axis of the escalator/moving walk above the end supports and – where applicable – the intermediate supports. The exact position is indicated in our layout drawings. The suspension points must be rated for a load of 50 kN.



Recess clearances, floor openings, supports

Please refer to our dimension sheets and the project-specific layout drawing for all the necessary recess clearances, floor openings, and supports.





Detailed Planning Safety, regulation-compliant



Balustrade height

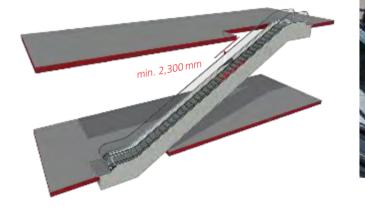
Balustrades are available in heights of 900, 1,000 and 1,100 mm. The advantage of 900 mm balustrades is that even small children can easily reach the handrail. For greater fall heights we recommend balustrades with a continuous height of 1,000 mm. A balustrade height of 1,100 mm is also available if required under national regulations.

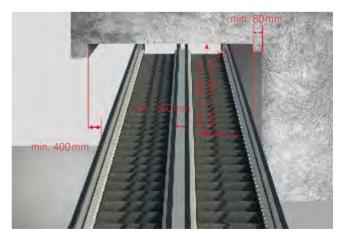
Overhead clearance

The free overhead clearance at every point along the step/pallet band must be at least 2.3 m.

Safety clearances

The horizontal clearance from the outer edge of the handrail to the walls or other obstacles must always be at least 80 mm. This clearance must be maintained up to a height of at least 2.3 m above the step/pallet band. With vertical walls, all Schindler escalators and moving walks provide the specified safety clearance of 80 mm.





Detailed Planning Safety, regulation-compliant

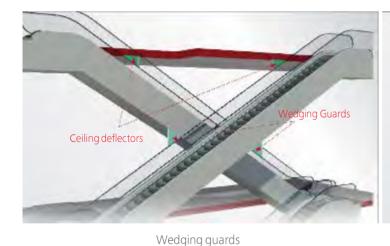
Ceiling deflectors, wedging guards

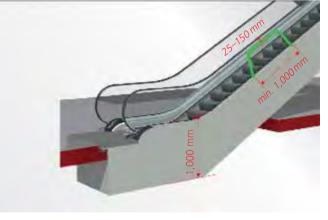
With escalators and moving walks arranged in a crisscross pattern or with floor openings, there is a risk of wedging between balustrades and adjacent escalator/moving walks or ceilings and columns. If the distance between the outer edge of the handrail and the obstacle is less than 400 mm, wedging guards or ceiling deflectors are to be provided.

Deflectors must be rigidly mounted in order to meet all requirements. A pendulously mounted deflector can be used in addition to the mandatory rigidly mounted deflector.

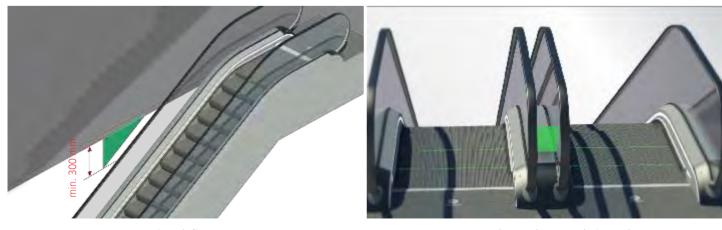
Protective barriers

Appropriate structural measures must be installed to prevent people from accessing escalators or moving walks from the side. Protective barriers and guards should be provided on the balustrades where necessary. Protective barriers, guards against climbing the balustrades, ceiling deflectors, and wedging guards can also be supplied by Schindler as an option.





Guards against climbing the balustrade

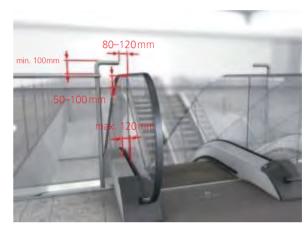


Ceiling deflectors

Detailed Planning Safety, regulation-compliant

Railings provided by the customer

Railings are to be fitted by the customer at the accesses to the escalators and moving walks. The distance to the handrail of the escalator/moving walk must be at least 80 mm. It is recommended that the support for the escalator/moving walk be at least 1,000 mm away from the ceiling edge so that the balustrade does not have to be extended.





Detailed Planning Balustrade executions

Depending on the application, different balustrade executions are recommended according to the table below.

	Vertical glass balustrade with slim handrail profile and 10 mm hardened safetyglass	Vertical glass balustrade with sturdy handrail profile and 10 mm hardened safetyglass	Vertical stainless steel balustrade and 10 mm stainless-steel sandwich panel	Inclined stainless-steel balustrade stainless steel panels
Balustrade type				
Escalators	Х	Х	Х	Х
Inclined moving walks	Х	Х	Х	Х
Horizontal moving walks	Х	Х	Х	
Standard balustrade height	900/1,000 mm	900/1,000mm	900/1,000mm	1,000mm
Application	Slim handrail base profile for a visually light appearance preferred by architects and interior designers of modern buildings	Visually light appearance but with more sturdy profile and increased robustness	Vandalism-resistant design for public applications	Vandalism-resistant design with increased space for passengers due to inclined balustrade design
Suitable for	Retail and airport applications	Railway, metro, and other applications in public spaces	Railway, metro, and other applications in public spaces	Railway, metro, and other applications in public spaces



Antifall barrier

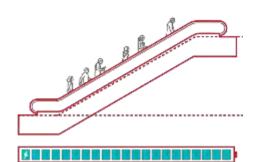
An additional antifall barrier is installed on the outside of the existing handrail to increase the barrier height and reduce the risk of a passenger falling.

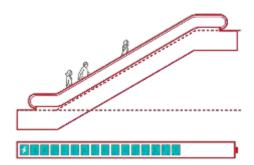
Detailed Planning Operating modes and energy efficiency

The operating mode of the escalators/moving walks can be adapted to the application. There are essentially four operating modes:

- Continuous operation
- Stop-&-go operation
- Slow-speed operation & continuous operation
- Slow-speed operation & stop & continuous operation

Schindler escalators and moving walks offer optimized energy-saving packages for all four operating modes according to the table below.

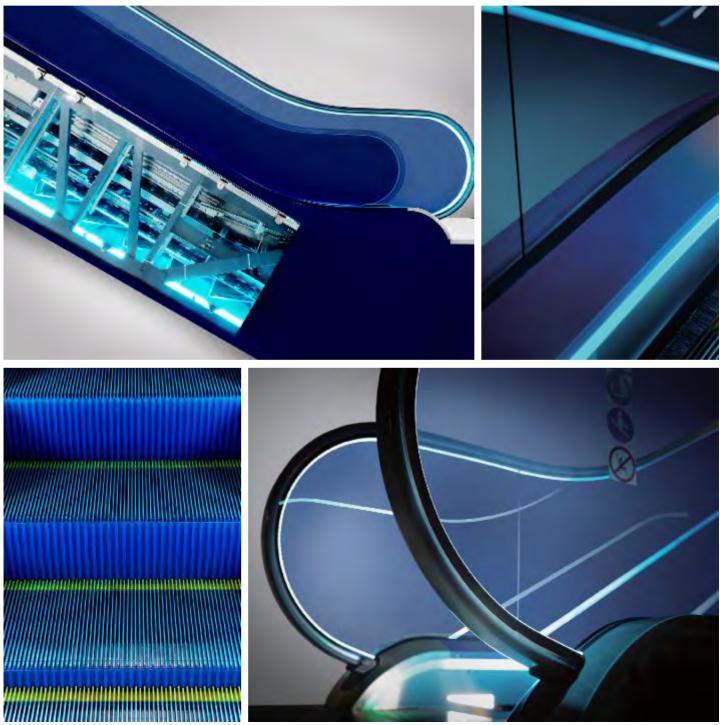




		Recommend Solutions			
Operating mode	ECO	ECO Premium	ECO Premium Plus		
Description	Continuous operation with automatic star-delta switching of the motor for highest motor efficiency depending on the number of passengers using the escalator	ECO mode + slow-speed operation in the case of absence of passengers.	ECO + ECO Premium + complete stop of the escalator after running some time in slow-speed operation		
Operation graph	tool (2) 34 2,1 3 30 3 3 3 3 3 3 3 4 3 4 3 5 4 5 5 4 5 5 5 4 5 5 5 5	(500 m) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	Next: 400 200 201 400 400 400 400 400 400 400 4		
Advantage		Mechanical wear is considerably lower. The readiness for operation and the direction of travel are indicated by the slowly moving steps. Approaching passengers are invited to use the unit	Same as ECO Premium with greater energy savings		
Application	Application with continuous passenger arrivals over the whole daily usage time	Recommended for all applications	Recommended for special applications where longer times without passengers are expected, such as special gates in airports or other spaces with limited usage		
Energy savings compared to continous operation	Up to 25%	Up to 50%	Up to 70%		

Detailed Planning

Schindler 9300 Premium Packages offer a wide range of exterior options featuring, among others, the enchanting night blue color theme.



Distinctive and highly customizable options are available for planning escalators and moving walks. The options include additional LED lighting and colored handrails, newel end caps, and deckings.

Contemperory aesthetic details can complete architectural needs and enhance the building environment as well.

Handrail













Customized logo

Decking

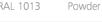


Stainless Steel

Decorative lighting









Powder Ctd. RAL 3004



Powder Ctd. RAL 7030



Powder Ctd. RAL 9002



Powder Ctd. RAL9006



LED balustrade lighting



LED skirt lighting



lighting



Ribbed aluminum, natural

Direction indicator



On outer decking



Stainless Steel, Staggered



On skirting



For stainless-steel balustrade



Natural step



Silver step



Black step







Black step with yellow demarcation

Detailed Planning Special applications

Outdoor and outdoor covered installation

Escalators and moving walks that are exposed to all weather conditions without any protection are subject to special configurations for outdoor operation. Additional protection measures are also required for outdoor units covered by a roof and side walls. Please refer to the table below for specific application classifications and the respective recommended option packages.

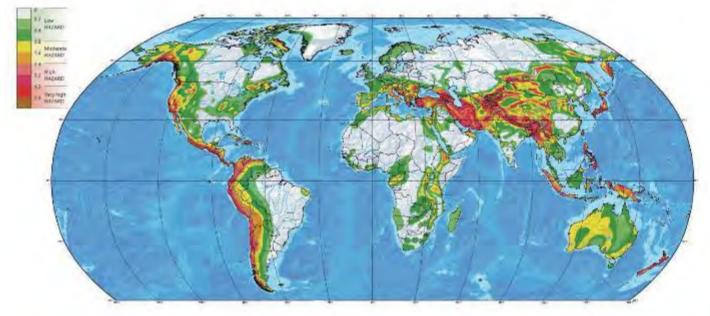
Installation	Class	Condition	Ambient temperature	Humidity	Electrical IP degree	Ventilator	Heating	Oil separator with water drain
Indoor	I	Moderate	4°C up to 40°C	<80%	IP21			
Covered outdoor	11	Moderate	4°C up to 40°C	<90%	IP54			
The		Cold	-20°C up to 40°C	<90%	IP54		Х	
	IV	Tropics	12°C up to 40°C	<90%	IP54	Х		
	V	Salt/grit/sand	-20°C up to 40°C	<90%	IP54	Х	Х	
Uncovered outdoor	VI	Moderate	4°C up to 40°C	<90%	IP54			Х
	VII	Cold	-20°C up to 40°C	<90%	IP54		Х	Х
	VIII	Tropics	12°C up to 40°C	<90%	IP54	Х		Х
CH C	IX	Salt/grit/sand	-20°C up to 40°C	<90%	IP54	Х	Х	Х

Detailed Planning Special applications

Requirements for operation in regions with risk of earthquakes

In the case of new or existing buildings built according to national seismic standards the planner of the project shall provide information on the peak ground acceleration (the so-called "agR" value) and the ground type.

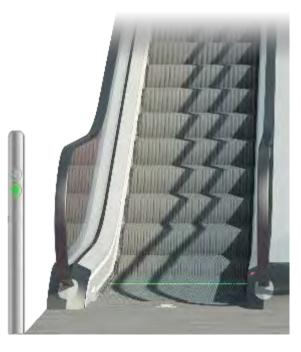
Based on these two values, the necessary measures are defined in conformity with EN 1998-1 and EN 115-1. Separate calculation methods apply for ANSI.



GLOBAL SEISMIC HAZARD MAP

Two-direction operation

On escalators that can start automatically in either direction (two-direction operation) by a user entering the unit, the operating mode shall be clearly visible to the user and marked distinctly on the escalator. They will start in the direction determined by the user entering first. When the escalator is started by a user from either direction, the indicator opposite the initiated starting side will automatically indicate "no entry."



Detailed Planning Special applications

Moving walk operation with shopping carts

Only suitably designed shopping carts (in accordance with EN 1929-2 and EN 1929-4) and baggage carts may be used on moving walks. Access to the moving walk entrance must be blocked for non-specified carts.

The width of each shopping or baggage cart and its contents must be at least 400 mm less than the nominal pallet width, since passengers must be able to walk past any cart on the moving walk. For moving walks with an inclination greater than 6°, the rated speed must be limited to 0.5 m/s. Shopping and baggage carts must conform to the moving walk design:

- The design must ensure safe and correct loading.
- The maximum weight must not exceed 160 kg when loaded.

- A braking or blocking system must be fitted to enable automatic locking on the inclined section of moving walks.
- The carts must be equipped with deflectors (bumpers) to reduce the risk of getting stuck.
- To ensure safe exit from the moving walk, the blocking system of the rear rollers of shopping and baggage carts must lock onto the pallet in order to push the front rollers over the combs. The front rollers and/or blocking system must release easily from the pallet.
- Deflectors and guiding devices must be provided in the surrounding area to ensure correct alignment when entering the moving walk.
- Safety signs about safe and correct use of shopping and baggage carts must beposted.



Detailed Planning Special applications

For safety reasons, the transportation of shopping and baggage carts on escalators is not allowed. If they must be transported, moving walks must be installed.

If there is a foreseeable risk that shopping and/or baggage carts can be taken onto escalators or moving walks, adequate measures shall be taken to eliminate risks, and access shall be prevented if the following conditions apply:

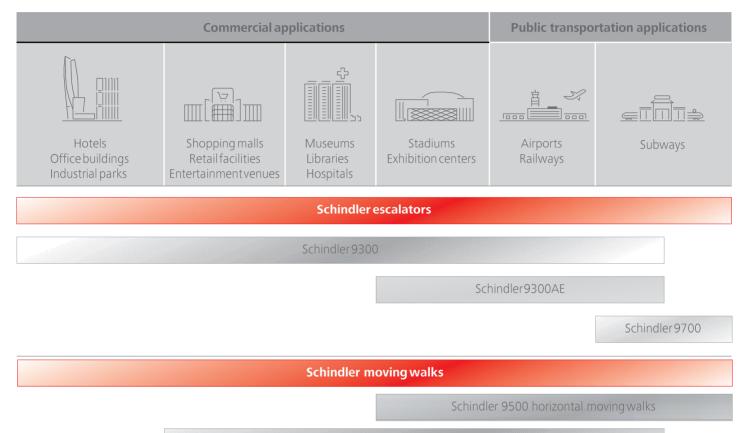
- For escalators: where shopping or baggage carts are available in the surrounding area
- For escalators: where shopping or baggage carts are in an area not close to the escalator, but where intead of escalator where it is reasonably foreseeable that they are taken onto the escalator
- For moving walks: where shopping or baggage carts are not intended to be used on a moving walk

See page 52 for more details on external barriers.



The Best Product for Your Premises

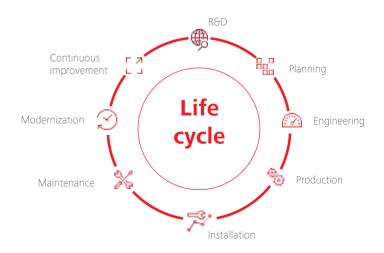
Schindler escalators and moving walks are optimally designed for use in all the relevant application segments. The modular structure of Schindler escalators and moving walks means that the components required can be adapted to each application while retaining the same outer design. The following table provides an overview of the product types and their main application segments.



Schindler 9500AE inclined moving walks

Made with flexible modules, Schindler escalators and moving walks come in various exterior looks and features. They are ideally suited for different applications.

Schindler is dedicated to providing top-level customer experience with excellent products and a full lifecycle service ranging from research and development, production, and sales to engineering and after-sales service.



The Best Product for Your Premises



Schindler 9300AE

The Schindler 9300 Advanced Edition escalator is designed for the special requirements of medium rises in airport, railway, and metro applications of up to 20 m. Modular configuration variants cover virtually all requirements of medium rises and public transportation applications.



Schindler 9300

Enhanced safety features, energy efficiency, and its space-saving design make the Schindler 9300 escalator today's state-of-the-art solution. It is the best solution for commercial buildings, airports, and railway stations up to a rise of 13 m.

Seamless configuration packages range from highly standardized execution up to top-of-the-line premium solutions.



Schindler 9700

The Schindler 9700 escalator is the ideal mobility solution for large public spaces – like metro and train stations – with extreme traffic demands with a rise range of up to 50 m.

Schindler 9500AE

The Schindler 9500 Advanced Edition inclined moving walk is the work horse for the transportation of your shopping cart Our inclined moving walks with widths of up to 1,100 mm are designed to be used with shopping carts with a width of up to 700 mm.





Schindler 9500

The Schindler 9500 horizontal moving walk is the best solution for passenger mobility in airports. With widths of up to 1,400 mm, our horizontal moving walks perfectly cover the public transportation requirements at airports, trade fair centers, or other facilities.



Schindler Ahead

Schindler Ahead is the digital portfolio for smart escalators. It analyzes cloud-based data to deliver improved uptime, insights, and convenience.

Digital connectivity allows for quick reaction in the case of operational stoppages and efficient management of the equipment, while adding higher levels of comfort for passengers.

The units are connected to the Schindler Ahead cloud and transfer operational information and statuses, warnings, and errors. Several packages are available and can be upgraded in the case of additional requirements:

Ahead connectivity

The escalators are delivered with installed hardware and connectivity service for you. The units communicate via 4G to the Schindler cloud.

Ahead ActionBoard

ActionBoard collates all the relevant statistics, activities, and performance data, and displays them in a simple, easy-to-understand manner.

Ahead Remote Monitoring

Ahead RemoteMonitoring provides round-the-clock status with clear insights into equipment health including permanent diagnostics, remote health checks, and proactive information.

Services Provided by the Customer, Site Preparation

Once the detailed planning process is completed, we will provide you with a project planning sheet or a layout drawing based on your indications and containing all the relevant information such as escalator/ moving walk geometry, support loads, and key electrical data.

You can also draw up this plan yourself using SchindlerDraw at www.schindler.com.

Production release

Next, you give the go-ahead for the production of the escalator/moving walk by signing the valid project planning sheet or the layout drawing and returning it to us. Check once again that the main dimensions of the escalator/moving walk correspond with the dimensions of your building structure. Our installation team will be happy to coordinate the access route as well as the moving and placement logistics with you onceagain.

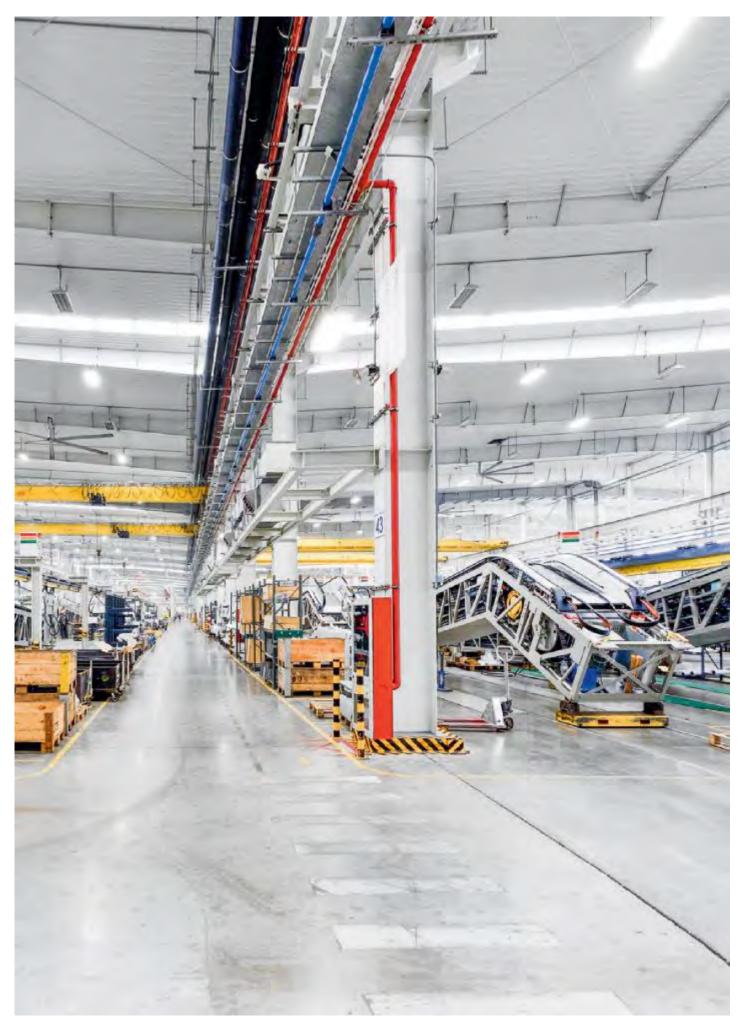
Site preparation inspection

Before your escalator/moving walk is delivered, our installation team examines the supports and the installation dimensions on site. Acceptance of the preparations to be made by the customer, i.e., electrical connections, transportation routes, etc., is also carried out with the sitemanagement.

Transportation from factory to site

Depending on the delivery mode, the escalators/ moving walks are delivered by truck (or in a container for deliveries overseas). Given the possible excess lengths and heights, official approvals may be necessary for the transportation to the site.





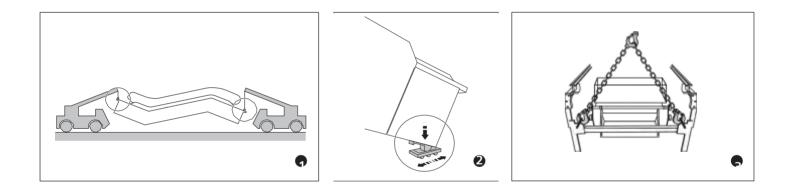
From Production Release to Final Installation Transportation to the installation site

Transportation to the installation site using special forklift trucks

The clearance over the entire access route must not be less than the minimum dimension stipulated in the dimension sheet/layout drawing. (Don't forget suspended pipes or lines.)

The type of delivery has to be stipulated at the time of the release for production. After that date the escalators/moving walks can no longer be designed in several parts. The required entrance width depends on the width of the escalator/moving walk. Given the length of the escalator/moving walk, make sure all curves and bends can be negotiated easily. We recommend that you plot out the entire transportation route on a CAD plan or paper model.

The entire transportation route must be level and free of obstacles, and be able to withstand particular floor loads. If not, the appropriate load distribution has to be provided. Our experts can advise you.





From Production Release to Final Installation Moving the escalator or moving walk into the building

Moving the escalator/moving walk into the building up to its supports is a critical process that requires meticulous preparations (see "Services Provided by the Customer, Site Preparations").

Once the escalator/moving walk has been unloaded by crane or forklift truck, the escalator/moving walk is placed on roller dollies and towed by forklift truck. To minimize the on-site transportation logistics, it is extremely important to keep the transportation route as short and as straight as possible. Optimal planning and preparation of on-site transportation and the moving of the escalator/moving walk into the building are essential for ensuring the best possible installation sequence and thereby minimizing building costs. Escalators/moving walks are entirely preassembled at the factory. This is why planning on-site transportation of the escalators/ moving walks, which can be up to 17 m long and weigh up to 100 kN, is such a key step in the planning process. Planning is based on the technical specifications in our dimension sheets or on the layout drawing specific to the project.

As a matter of principle, we recommend that you coordinate the date and time as well as how the escalator/moving walk will be moved into the building and the access route with our experts PLENTY OF TIME IN ADVANCE.

The key points involved in this process are summarized below.

A suitable area for unloading the escalator/moving walk from the truck has to be provided in front of the building. The access routes to the building and the installation site must be level and accessible with roller dollies. Essentially, there are two possibilities for moving the escalator/moving walk into the building:

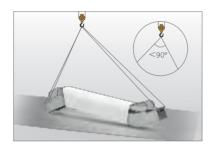
- Through appropriate side openings in the building or roof using an on-site or mobile crane
- Through ground-floor openings in the building using special forklift trucks



From Production Release to Final Installation Hoisting the escalator or moving walk onto its supports

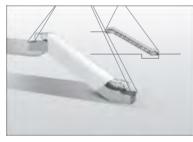
Hoisting the escalator/moving walk directly from the truck onto the support by crane

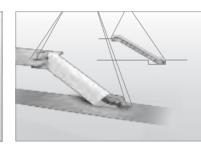
Installation by crane is a quick and efficient method to put the unit directly onto its supports from the truck in a single piece. It is the preferred method if an access via a sufficently large roof opening is possible. Because a certain amount of time will probably elapse between the placing of the escalator/moving walk and its commissioning, the unit should be adequately protected against dirt and damage due to building work.













Installation in one complete section by crane



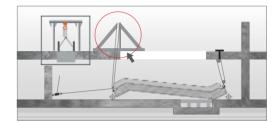
From Production Release to Final Installation Hoisting the escalator or moving walk onto its supports

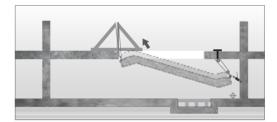
Lifting points or lifting frames

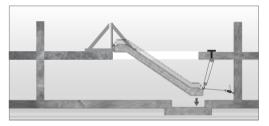
Whenever possible, lifting points above the escalator/ moving walks supports should be provided. They significantly simplify and speed up the hoisting process. Usually, suspension points in the form of ceiling plates or ceiling openings with a diameter of 50 mm are prepared by the customer in accordance with the

indications on the layout drawing to secure the hoisting gear. These points are used to hoist the escalators/ moving walks and set them down onto the supports. Each suspension point must have a load-bearing capacity of at least 50kN.

If no suspension points are provided by the customer, installation scaffolds are used. This installation method takes longer and involves more materials.







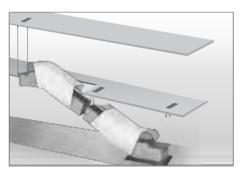
Installation in one section using scaffolds



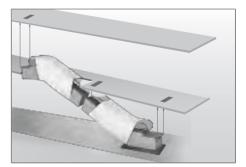


Installation in sections

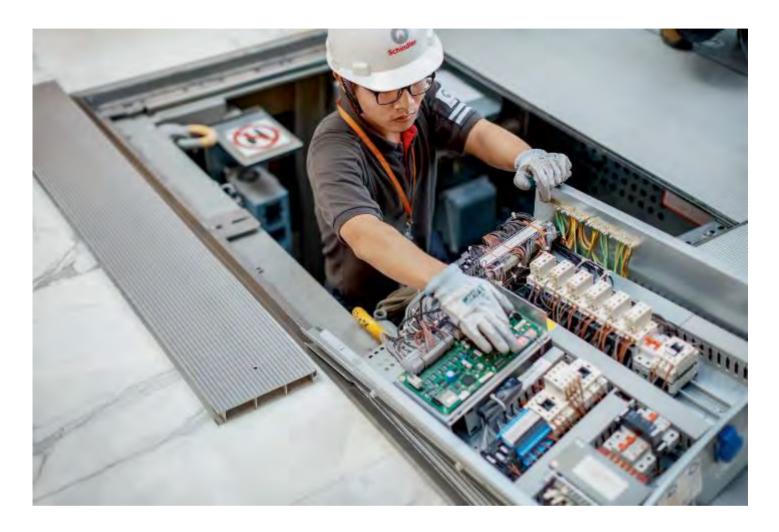








From Production Release to Final Installation



The covering fitted by Schindler should be removed only during commissioning.

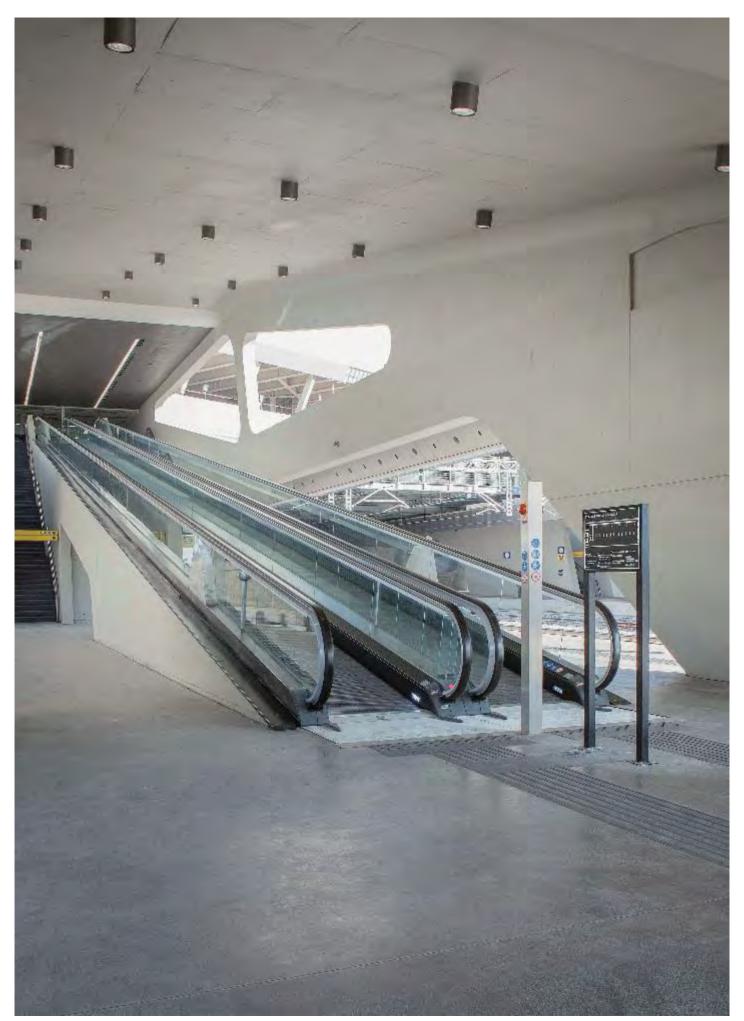
The escalator/moving walk is not to be used as a fixed stairway during the construction phase (increased risk of dirt, soiling, and damage). Any dirt that cannot be removed can affect the service life of mechanical and electrical components.

Final installation, commissioning

Upon completion of installation, the escalator/moving walk is thoroughly checked once more during a test

run. At the handover, you will be given the customer documentation and the keys for the unit. In some countries, acceptance by an authorized verification body is necessary prior to commissioning. Commissioning can then proceed as usual.

Please note that the unit has to be kept in a safe operating state by an authorized maintenance organization. We at Schindler are at your disposal around the clock for such services.





Key Points for the Planning Process Checklist

Approval of the layout drawing	

- √ Pit dimensions
- √ Rise
- $\boxed{\sqrt{}}$ Support distance and dimensions
- Electrical feed lines
- Sprinkler connections, if necessary
- \square Phone connection for remote monitoring
- Water drain for outdoor installation

Services to be provided by the customer

- $\boxed{1}$ Masonry, scaffolding, and cutting work
- Structural supports for the escalator or moving walk supports
- Protective railings for the upper floor opening, if necessary
- Power supply to the escalator or moving walk main switch
- \checkmark Phone line for remote monitoring
- Erection of scaffolding and barriers, provision of openings, removal of doors and portals (if necessary to bring the unit inside the building)
- Covering of finished floor with planking and, if necessary, support of floors for transportation and suspension of the unit in the building



- $\sqrt{}$ Any incurred acceptance and testing fees
- Satisfactory covering of the unit to protect against damage and dirt until commissioning
- Erection of barriers to protect against unauthorized access to the unit (e.g., site barriers, warning signs)
- Protective barriers, ceiling deflectors, wedging guards (optionally supplied by Schindler)
- Cleaning of the unit to remove dirt accumulated during construction, if necessary
- $\sqrt{}$ Water drain, oil separators as per building codes

And remember, if you have any questions, our experts are always available to help you.

Disclaimer

The specifications, options, and colors mentioned in this brochure are indicative only and are subject to change without notice. They are not intended to, and do not, constitute an offer on the part of the Schindler Group.

Barriers to Prevent Access of Shopping and Baggage Carts

Where shopping and baggage carts are available in the area around escalator installations, suitable barriers shall be provided to prevent access on all escalators.

To prevent the use of shopping and baggage carts on escalators and moving walks, the requirements concerning the barriers are as follows:

- Barriers shall be installed at the entrance only.
 An installation at the exit is not permitted in the unrestricted area.
- The free entrance width between the ends of the newels and the barriers and between the barriers

themselves - shall be at least 500 mm and less than the width of the type of shopping or baggage cart that will be used.

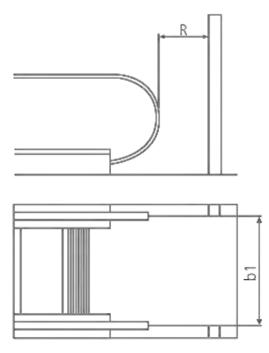
- The height of the barriers shall be between 900mm and 1,100mm.
- The barriers shall preferably be fixed to the building structure.

The following pictures provide details on comprehensive options for meeting all requirements of EN 115-1:2017.

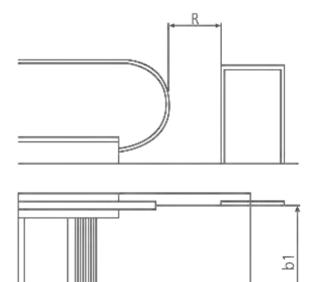
A) Free-standing guiding barriers or traffic columns shall be positioned at a minimum horizontal distance (radius) of 500 mm from any point of the handrail and outside the center line of the handrail.

Fig. 1a: Illustration of the unrestricted area with column at a radius of $R \ge 500$ mm from any point of the handrail acc. to **placement A**

Fig. 1b: Illustration of the unrestricted area with guiding barrier at a radius of $R \ge 500$ mm from any point of the handrail acc. to **placement A**



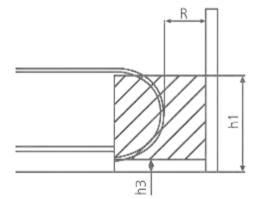
R acc. to EN 115-1 = the minimum horizontal distance b1 acc. to EN 115-1 = distance between the handrail center lines

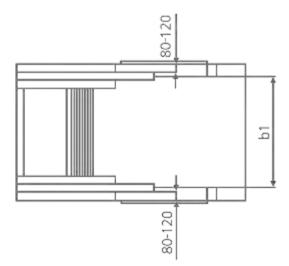


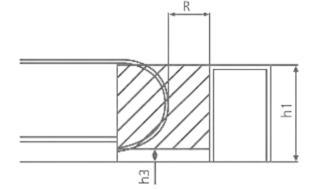
B) This minimum distance may be reduced to 300 mm provided that the guiding barriers or traffic columns are positioned outside the center lines of the handrails and an additional barrier is installed between the guiding barriers or traffic columns and the vertical center line of the balustrade newel (see Figures 2a/b and Figure 7).

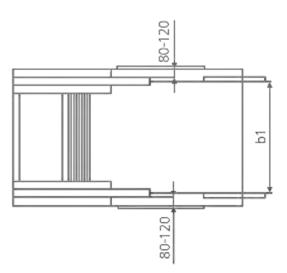
Fig. 2a: Illustration of the unrestricted area with column and with additional barrier (hatched area) at a radius of 300 mm $\leq R \leq$ 500 mm from any point of the handrail acc. to **placement B**

Fig. 2b: Illustration of the unrestricted area with guiding barrier and with additional barrier (hatched area) at a radius of 300 mm $\leq R \leq$ 500 mm from any point of the handrail acc. to **placement B**









R acc. to EN 115-1 = the minimum horizontal distance

b1 acc. to EN 115-1 = distance between the handrail center lines

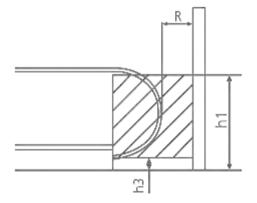
h1 acc. to EN 115-1 = Vertical distance between the top of the handrail and step nose or pallet surface or belt surface h3 acc. to EN 115-1 = Distance between the entry of handrail into the newel and the floor

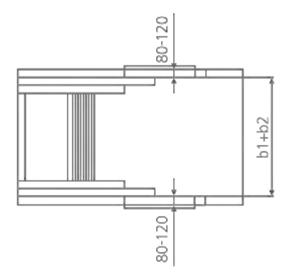
C) Further reduction to 180 mm is permitted as long as the guiding barrier or traffic column is positioned outside the outer edge of the handrail and an additional barrier is installed between the guiding barrier or traffic column and the vertical center line of the balustrade newel (see Figures 3a/b and Figure 7).

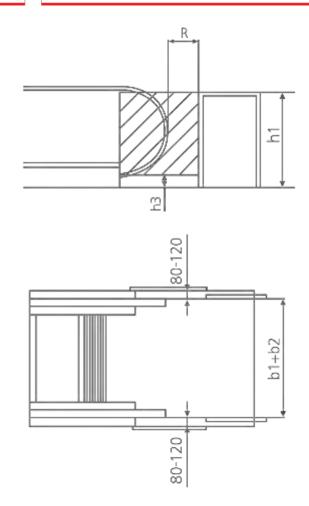
The additional barrier shall have a lateral distance of 80 mm to 120 mm to the outer edge of the handrail and shall block at least the area between the lowest point of the handrail entry into the newel (h3) and the balustrade decking profile and must have filled inlets with gaps < 25 mm with no pinching risk (see Figures 6a/b/c/d).

Fig. 3a: Illustration of the unrestricted area with column and with additional barrier (hatched area) at a radius of 180 mm $\leq R \leq$ 300 mm from any point of the handrail acc. to **placement C**

Fig. 3b: Illustration of the unrestricted area with guiding barrier and with additional barrier (hatched area) at a radius of 180 mm $\leq R \leq$ 300 mm from any point of the handrail acc. to **placement C**







R acc. to EN 115-1 = the minimum horizontal distance b1 acc. to EN 115-1 = distance between the handrail center lines b2 acc. to EN 115-1 = Width of the handrail h1 acc. to EN 115-1 = Vertical distance between the top of the handrail and step nose or pallet surface or belt surface h3 acc. to EN 115-1 = Distance between the entry of handrail into the newel and the floor

D) A reduction of the horizontal distance to 100 mm (identical to the minimum value of h3) is only permitted if the guiding barrier or traffic column is of a round shape and is positioned outside the outer edge of the handrail and an additional barrier is installed between the guiding barrier or traffic column and the vertical center line of the balustrade newel (see Figures 4a/b and Figure 7).

Fig. 4a: Illustration of the unrestricted area with Fig. 4b: Illustration of the unrestricted area with column and with additional barrier (hatched area) guiding barrier and with additional barrier (hatched at a radius of 100 mm $\leq R \leq$ 180 mm from any area) at a radius of 100 mm $\leq R \leq$ 180 mm from point of the handrail acc. to **placement D** any point of the handrail acc. to **placement D** R Ē Ē ę 4 4 ò à 120 80-120 ģ

R acc. to EN 115-1 = the minimum horizontal distance b1 acc. to EN 115-1 = distance between the handrail center lines b2 acc. to EN 115-1 = Width of the handrail h1 acc. to EN 115-1 = Vertical distance between the top of the handrail and step nose or pallet surface or belt surface h3 acc. to EN 115-1 = Distance between the entry of handrail into the newel and the floor

The additional barrier shall have a lateral distance of 80 mm to 120 mm to the outer edge of the and shall block at least the area between the actual lowest point of the handrail entry into the newel (h3; see EN 115-1, section 5.6.4.1) and the balustrade decking profile and must have filled inlets with gaps < 25 mm with no pinching risk (see Figures 6a/b/c/d).

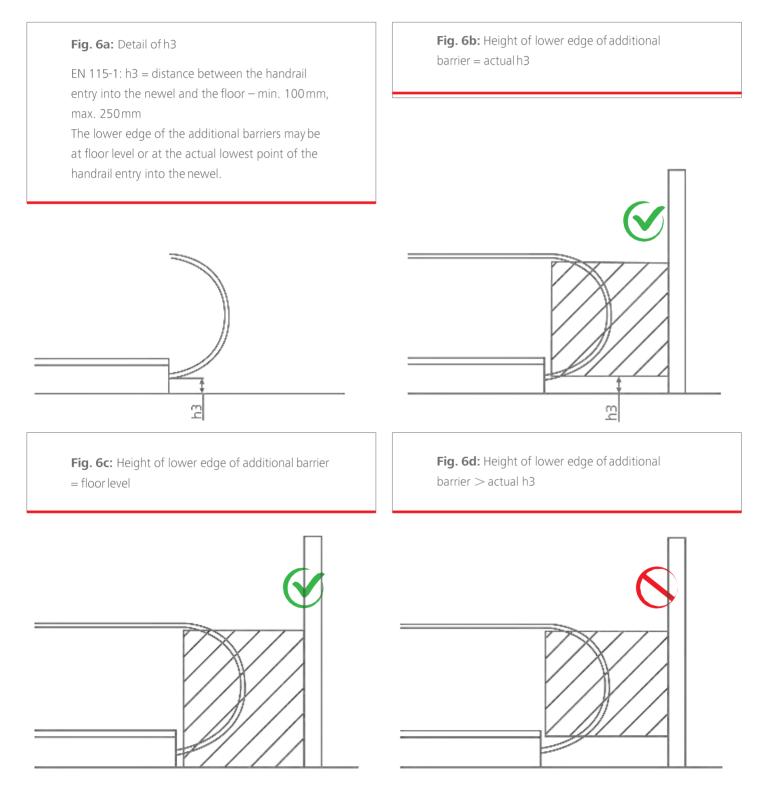
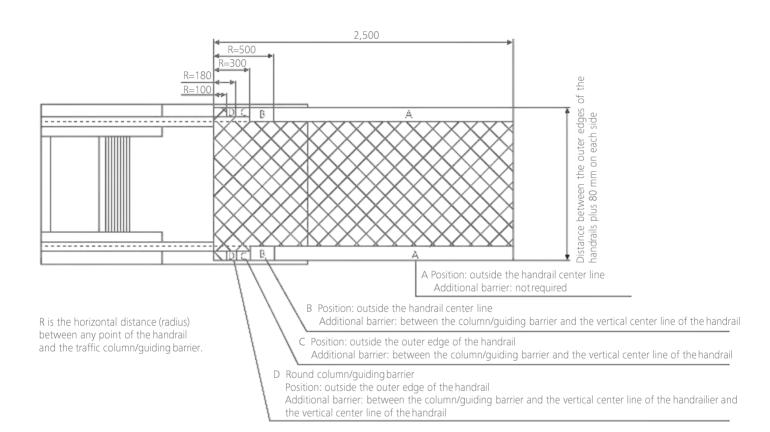
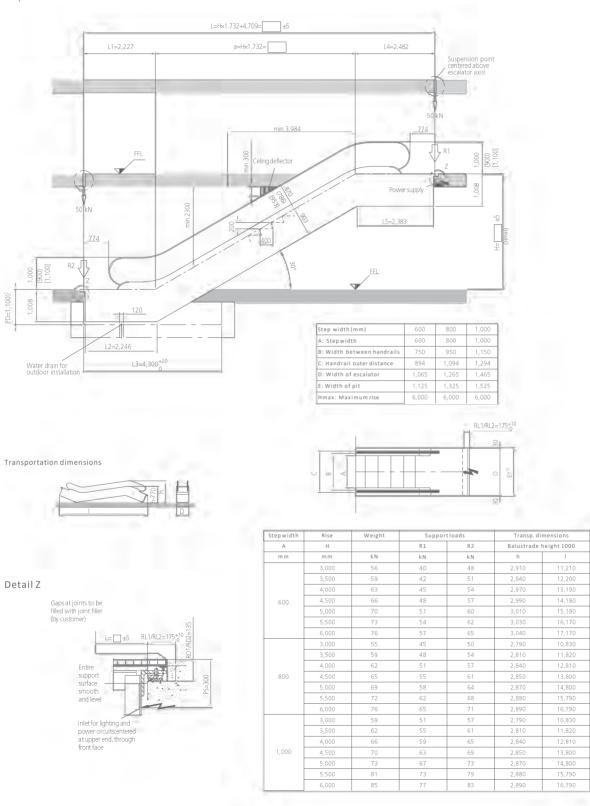


Fig. 7: Possible placements of fixed devices in unrestricted areas (guiding barriers and traffic columns)



Schindler 9300 Type 11 30°-K

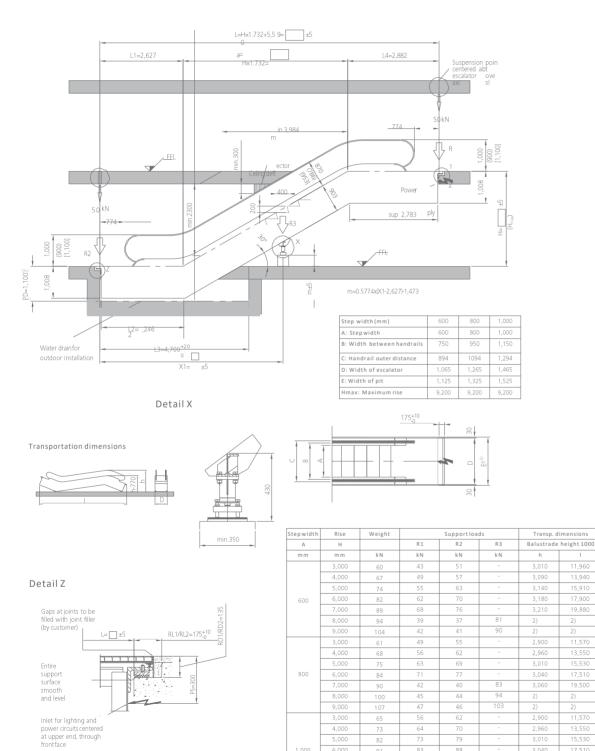
Balustrade: design E Balustrade height: 900/1,000/1,100 mm Top/bottom transition radius: 1.0/1.0 m Step width: 600/800/1,000 mm Step run: 2 horizontal steps



All dimensions in mm. Observe national regulations! Subject to changes.

Schindler 9300 Type 11 30°-M

Balustrade: design E Balustrade height: 900/1,000/1,100 mm Top/bottom transition radius: 1.0/1.0 m Step width: 600/800/1,000 mm Step run: 3 horizontal steps



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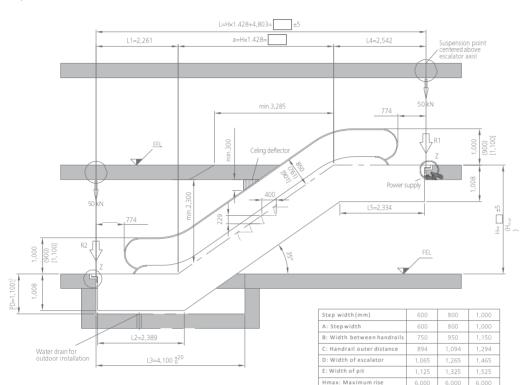
All dimensions in mm. Observe national regulations! Subject to changes.

 1)If H > 6m, an intermediate support may be required.
 Please consult Schindler.
 2) Delivery in 2 parts.

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Schindler 9300 Type 11 35°-K

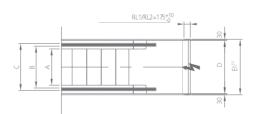
Balustrade: design E Balustrade height: 900/1,000/1,100 mm Top/bottom transition radius: 1.0/1.0 m Step width: 600/800/1,000 mm Step run: 2 horizontal steps



All dimensions in mm. Observe national regulations! Subject to changes.

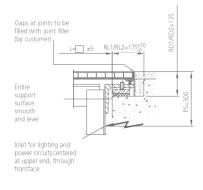
Transportation dimensions





Stepwidth	Rise	Weight	Suppor	tloads	Transp. di	mensions
A	н		R1	R 2	Balustrade	height 1000
mm	m m	k N	k N	k N	h	I
	3,000	53	37	45	3,000	10,450
	3,500	56	39	47	3,040	11,310
	4,000	59	42	50	3,080	12,160
600	4,500	62	44	52	3,110	13,020
	5,000	65	47	55	3,130	13,880
	5,500	67	49	57	3,150	14,740
	6,000	70	52	60	3,170	15,600
	3,000	52	52	47	2,870	10,070
	3,500	55	44	50	2,910	10,920
	4,000	58	47	53	2,930	11,780
800	4,500	61	50	56	2,950	12,640
	5,000	64	53	59	2,970	13,500
	5,500	67	56	62	2,980	14,360
	6,000	70	59	65	3,000	15,230
	3,000	55	47	53	2,870	10,070
	3,500	58	51	57	2,910	10,920
	4,000	61	54	60	2,930	11,780
1,000	4,500	65	57	63	2,950	12,640
	5,000	65	57	63	2,950	12,640
	5,500	71	64	70	2,980	14,360
	6,000	74	68	74	3,000	15,230

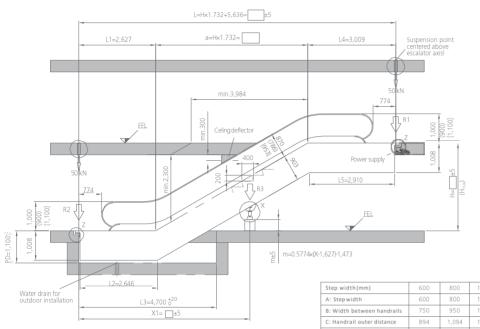
Detail Z



Schindler 9300 Type 15 30°-M

Balustrade: design E Balustrade height: 900/1,000/1,100 mm Top/bottom transition radius: 1.5/1.0 m

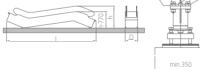
Step width: 600/800/1,000 mm Step run: 3 horizontal steps

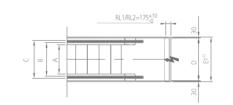


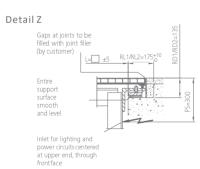
Detail X



Transportation dimensions







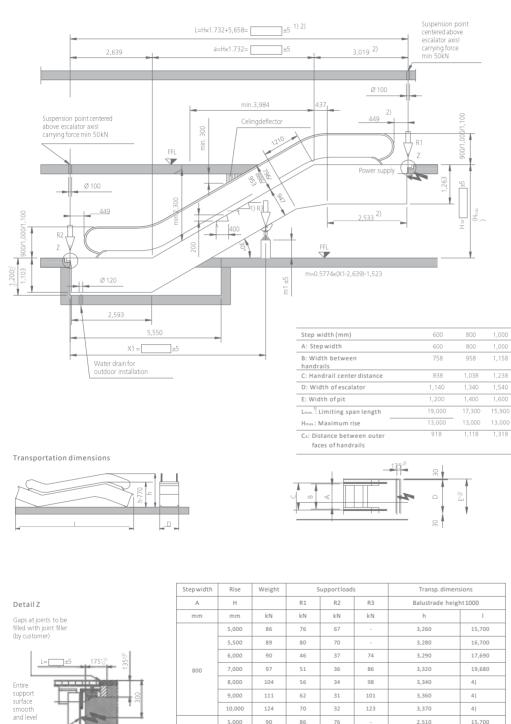
Step width	Rise	Weight	S	upportload	s		Transp. di	mensions
А	Н		R1	R 2	R3	R4	Balustrade	height1000
mm	m m	kN	kN	k N	k N	kN	h	1
	3,000	62	49	56	-	-	2,930	11,690
	4,000	69	56	63	-	-	3,000	13,670
	5,000	76	63	70	-	-	3,050	15,650
	6,000	85	71	78	-	-	3,080	17,630
	7,000	91	42	40	84	-	3,110	19,620
	8,000	101	45	45	94	-	3)	3)
800	9,000	108	48	46	104	-	3)	3)
	10,000	115	51	48	114	-	3)	3)
	11,000	133	56	57	127	-	3)	3)
	12,000	140	59	59	137	-	3)	3)
	13,000	151	64	63	146	-	3)	3)
	3,000	66	57	63	-	-	2,930	11,690
	4,000	73	65	71	-	-	3,000	13,670
	5,000	82	74	80	-	-	3,050	15,650
	6,000	92	83	90	-	-	3,080	17,630
	7,000	99	48	47	99	-	3,110	19,620
1,000	8,000	107	51	50	110	-	3)	3)
	9,000	115	54	52	122	-	3)	3)
	10,000	133	61	61	136	-	3)	3)
	11,000	144	66	65	147	-	3)	3)
	12,000	146	43	40	107	105	3)	3)
	13,000	154	45	42	114	111	3)	3)

All dimensions in mm. Observe national regulations! Subject to changes.

1)If H > 8.5m, a second intermediate support may be required.Please consult Schindler. 2)For H> 9.2m, a top extension of 417 mm is needed. 3) Delivery in 2 parts.

Schindler 9300AE Type 20·30°-M

Rise: max. 13 m at a step width of 1,000 mm Balustrade: design D Balustrade height: 900/1,000/1,100 mm Inclination:30° Step width:600/800/1,000 mm Step run: 3 horizontal steps



5,500

7,000

8,000

9,000

10.000

1,000

95

95

103

111

123

132

90

51

63

73

79

80

42

40

38

40

37

87

101

115

127

143

2,540

3,320

3,340

3,360

3.370

16,700

17,690

19,680

4)

4)

4)

All dimensions in mm. Observe national regulations! Subject to changes.

The stated loads are characteristic values according to EN 1990.

- If L > L_{max.}, an intermediate support may be required. Please consult schindler.
- With a double drive, the truss must be extended by 417mm.

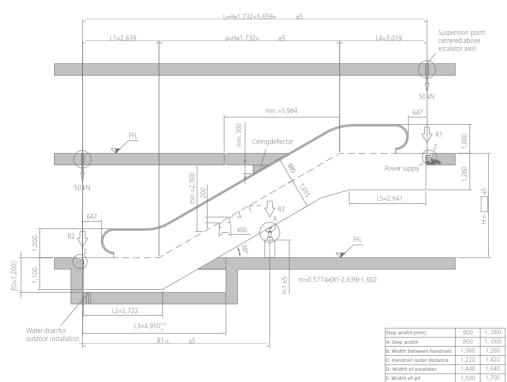
 With a balustrade height of 900 mm, h is reduced by 70 mm.

4) Delivery in min. 2 parts.

Inlet for lighting and powcircuits centered at upper end, through front face

Schindler 970S Type 20 30°-M

Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 1.5/1.0 m Inclination: 30° Step width: 800/1,000 mm Step run: 3 horizontal steps

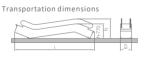


All dimensions in mm. Observe national regulations! Subject to changes.

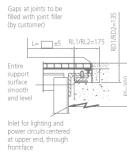
1) With a double drive, the truss must be extended by 417mm.

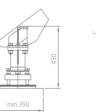
2) Delivery in min. 2 parts.





Detail Z





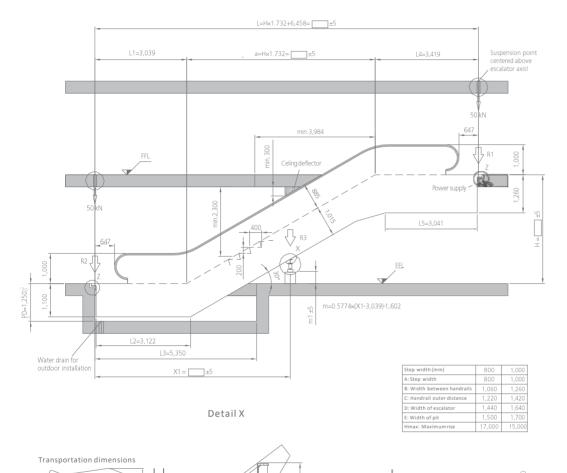
	8
	Eo ^{to}
	e M

ax: Maxim

Step width	Rise	Weight	S	upportload	s	Transp. di	mensions		
A	Н		R1	R1 R2		Balustrade height 100			
mm	mm	kN	kN	kN	kN	h			
	5,000	109	76	90	-	3,300	15,700		
	6,000	121	86	99	-	3,330	17,690		
	7,000	132	95	108	-	3,360	19,680		
800	8,000	138	53	57	111	2)	2)		
	9,000	147	57	59	123	2)	2)		
	10,000	157	60	61	134	2)	2)		
	5,000	114	86	100	-	3,300	15,700		
	6,000	127	97	110	-	3,330	17,690		
	7,000	133	55	59	113	3,360	19,680		
1,000	8,000	143	59	61	127	2)	2)		
1	9,000	153	63	64	140	2)	2)		
	10,000	166	69	69	151	2)	2)		

Schindler 970S Type 20 30°-L

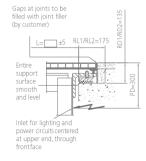
Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 1.5/1.0 m Inclination: 30° Step width: 800/1,000 mm Step run: 4 horizontal steps



1) With a double drive, the truss must be extended by 417mm.

2) Delivery in min. 2 parts.

Detail Z



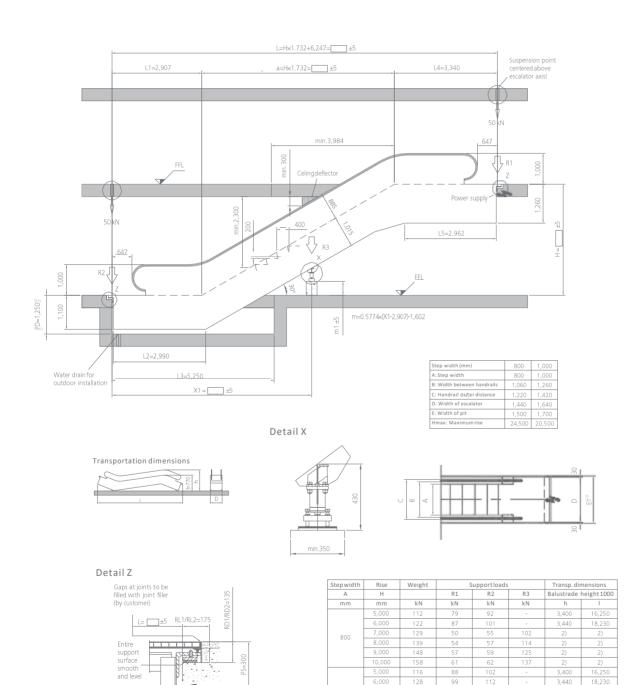
Stepwidth	Rise	Weight	S	upportloads	Transp. dimensions			
A	Н		R1	R2	R3	Balustrade	height 1000	
mm	mm	kN	kN	kN	kN	h	1	
	5,000	117	82	95	-	3,420	16,440	
	6,000	127	90	104	-	3,470	18,420	
800	7,000	134	51	56	106	2)	2)	
	8,000	144	55	58	117	2)	2)	
	9,000	153	58	60	129	2)	2)	
	10,000	163	58	68	138	2)	2)	
	5,000	121	91	105		3,420	16,440	
	6,000	129	53	59	107	3,470	18,420	
1,000	7,000	139	57	61	120	2)	2)	
1,000	8,000	149	61	63	133	2)	2)	
	9,000	159	65	66	146	2)	2)	
	10,000	169	64	75	157	2)	2)	

Schindler 970S Type 30 30°-M

Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 2.7/2.0 m

> Inlet for lighting and power circuits centered at upper end, through frontface

Inclination: 30° Step width: 800/1,000 mm Step run: 3 horizontal steps



All dimensions in mm. Observe national regulations! Subject to changes.

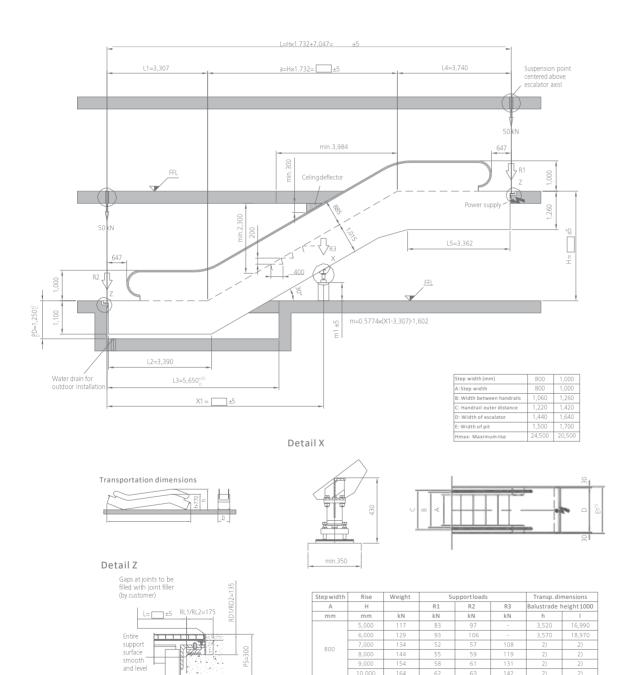
1) With a double drive, the truss must be extended by 417mm.

2) Delivery in min. 2 parts.

65

Schindler 970S Type 30 30°-L

Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 2.7/2.0 m Inclination: 30° Step width: 800/1,000 mm Step run: 4 horizontal steps



All dimensions in mm. Observe national regulations! Subject to changes.

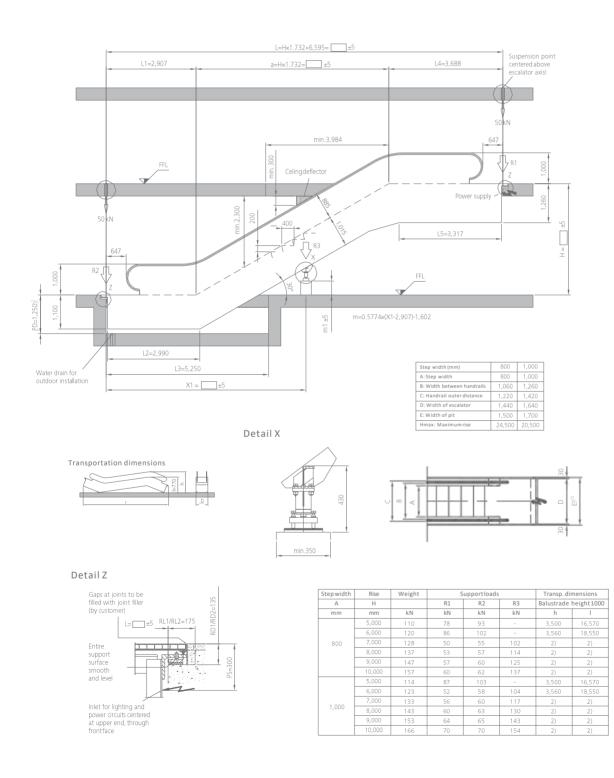
 With a double drive, the truss must be extended by 417mm.

2) Delivery in min. 2 parts.

Inlet for lighting and power circuits centered at upper end, through frontface

Schindler 970S Type 60 30°-M

Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 4.0/2.0 m Inclination: 30° Step width: 800/1,000 mm Step run: 3 horizontal steps



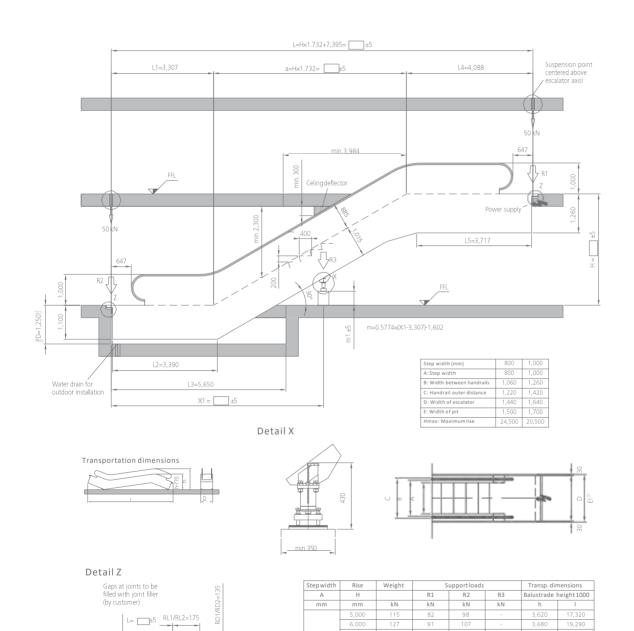
All dimensions in mm. Observe national regulations! Subject to changes.

1) With a double drive, the truss must be extended by 417mm.

2) Delivery in min. 2 parts.

Schindler 970S Type 60 30°-L

Balustrade: design I/design P Balustrade height: 1,000 mm Top/bottom transition radius: 4.0/2.0 m Inclination: 30° Step width: 800/1,000 mm Step run: 4 horizontal steps



800

300

All dimensions in mm. Observe national regulations! Subject to changes.

1) With a double drive, the truss must be extended by 417mm.

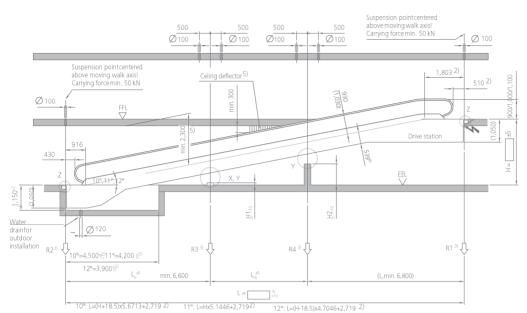
2) Delivery in min. 2 parts.

support surface smooth and level

Inlet for lighting and power circuits centered at upper end, through frontface

Schindler 9500 Туре 10 - К

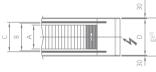
Rise: max. 7.5 m at a pallet width of 1,000 mm Balustrade: design E/F Balustrade height: 900/1,000/1,100 mm Inclination: 10°/11°/12° Pallet width: 8,00/1,000/1,100mm Horizontal pallet run: 400mm



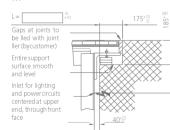
Inclination	Rise	Length	Transp. dir	nensions		Pa	llet wid	th A = 8	00			Pal	let widt	n A = 10	00			Pal	let widt	n A = 11	00	
			inone	part	W	eight (kN)	Supp	.loads(kN)	We	eight (kN)	Supp	. loads (kN)	We	eight (kN)	Supp	o. loads	(kN)
	н	L	h4)	I.	G	Gu	Go	R1	R2	R3	G	Gu	Go	R1	R2	R3	G	Gu	Go	R1	R2	R3
	3,000	19,838	2,460	20,420	86	40	46	41	37	93	92	43	49	46	43	108	96	45	51	50	46	116
10°	4,000	25,509	2,470	26,180	104	49	55	48	45	119	111	52	59	55	52	139	115	54	61	60	55	149
	5,000	31,180	2,470	31,940	130	42	52	59	56	148	132	43	49	49	44	105	135	44	50	51	46	112
	3,000	18,153	2,460	18,760	81	37	44	39	35	85	87	40	47	44	40	99	90	42	48	47	43	106
11°	4,000	23,297	2,470	24,000	97	45	52	45	42	109	104	49	55	51	49	127	108	51	57	56	52	136
	5,000	28,442	2,470	29,240	113	53	60	52	49	133	132	63	69	65	60	158	126	57	69	48	43	103
	3,000	16,746	2,460	17,380	77	35	42	37	34	78	82	38	44	41	38	91	85	39	46	45	41	98
12°	4,000	21,450	2,470	22,190	92	43	49	43	40	100	98	46	52	48	46	117	102	48	54	53	49	126
	5,000	26,155	2,470	27,000	106	50	56	49	46	122	116	55	61	58	54	143	126	60	66	64	60	155

- 1) Calculated on the basis of a deection of L /750. If L > L_{max} an intermediate support may be required; please consult Schindler Intermediate support (R3) at a distance of L /2. 2) With a double drive,
- the truss must be extended by 417 mm. 3) Support loads for
- two intermediate supports on request. 4) Dimensions for
- balustrade height 1.000. 5) Free spaces,
- overhead clearance, safety clearance; ceiling deflectors, wedging guards and protective barries according to national regulations (optional supply by Schindler).
- 6) Dimension for truss height 716mm

All dimensions in mm. Observe national regulations! Subject to changes. INT = intermediate support(s)



Detail Z R1



Transportation dimensions



Detail X Lintermediatesupport



Detail Y from 2 intermediate supports upward



Step width	800	1,000	1,100		10°:H1=Lu x 0.1763-1465
				1 INT	11°:H1=Lu x 0.1944-1482
A: Pallet width	800	1,000	1,100		12°:H1=Lu x 0.2126-1434
B: Width between handrails	958	1,158	1,258		10°:H1=Lu x 0.1763-1400
C: Handrail center distance	1,038	1,238	1,338		11°:H1=Lu x 0.1944-1417
D: Moving walk width	1,340	1,540	1,640	Ξ	12°:H1=Lu x 0.2126-1499
E: Width of pit	1,400	1,600	1,700	~	10°:H2 = H1 + Lm x0.1763
L _{max.} 1): Limiting span length	16,300 ⁶⁾	15,000 ⁶⁾	14,3006)		11°:H2 = H1 + Lm x0.1944
H _{max.} : Maximum rise	9,300	7,500	7,500		12°:H2 = H1 + Lm x0.2126

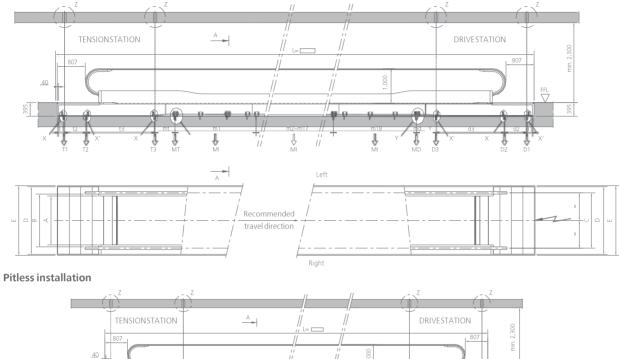
MIF 90151E - 11/2012 M43801210

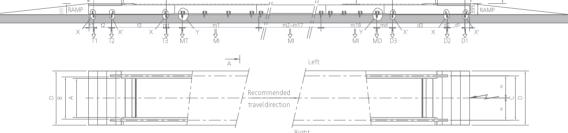
Schindler 9500 Type 20

Transportation length: max. 100 m at an inclination of 0° Balustrade: design E

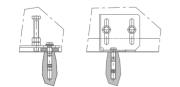
Balustrade height (from pallet): 1,000 mm Step width: 1,000/1,200/1,400







Detail X **Detail Y** Detail X' Mirror view 1:2.5 1:2.5



A: Palletwidth	1,000	1,200	1,400
B: Width between handrails	1,117	1,317	1,517
C: Handrail center distance	1,194	1,394	1594
D: Moving walkwidth	1,550	1,750	1,950
E: Width ofpit	1,610	1,810	2,010

* Holes for dowels according to the feet of the truss. The reaction loads are equally distributed among the supports on the left and right side For expansion joints need clarify with factory.

All dimensions inmm.

All loads inkN/m.

Observe national regulations! Subject to changes, please consult SCHINDLER.

Max. support loads (kN) valid only for maximum support distance

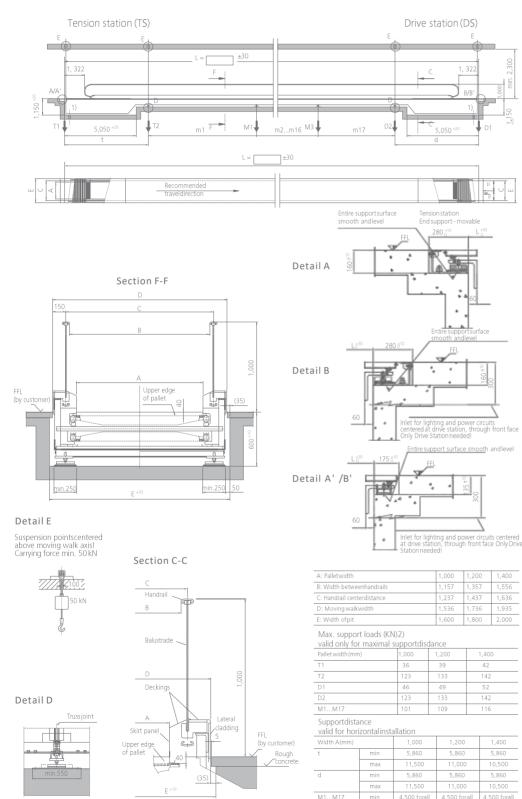
Pallet width (mm)	1,000	1,200	1,400
т1	4	4	4
Т2	12	14	15
ТЗ	11	12	14
D1	4	5	5
D2	14	16	18
D3	12	15	16
МТ	8	10	11
MI	12	14	16
MD	8	10	11

Supportdistance valid for horizontal installation

t1	170
t2	640
t3	1,968
mt	576
d1	170
d2	640
d3	1,968
md	565
m1~m18 (Max.)	5,400
m1~m18 (Min.)	1,350

Schindler 9500 Type 30

Transportation length: max. 100 m at an inclination of 0° Balustrade: design E Balustrade height: 1,000 mm Truss in drive and tension stations Inclination: 0°-6° Pallet width: 1,000/1,200/1,400 mm



- 1) For outdoor installations a water drain shall be provided over the entire length of the concrete pit by costumer.
- 2) The support loads T1 and D1 are equally distributed over the width of the moving walk, whereas the support loads T2, D2, M1, M3 etc. are equally distributed among the supports on the left and rightside.

For outdoor installations, feasibility must be checked by the supplying factory on the basis of climatic conditions.

For parallel installation the drive stations must be mounted always on the same end.

All dimensions in mm.

All loads in KN.

Observe national regulations!

Subject to changes.

Please consult Schindler.

Corporate Office-India

Schindler India Pvt. Ltd.

Schindler House, Main Street, Hiranandani Gardens Powai, Mumbai - 400076

Schindler Manufacturing Facility

Plot No. D-234, Near Warale Village, Chakan Phase 2 Road, MIDC Rd, Khed, Maharashtra

Find your local Schindler India office

For additional information please contact your nearest Schindler branch:

Ahmedabad

No. 401-402, 4th Floor Shivaik Satyamev Sardar Patel Ring Road Ahmedabad, Gujarat 380058

Chennai

No. 10-12, Egmore High Road Tamil Salai, opp. Udipi Home Egmore, Chennai Tamil Nadu 600008

Delhi South

Plot No. 5, 704, 7th Floor Baani Corporate One District Centre, Jasola Delhi 110025

Hyderabad

5th floor, B Block Midtown Building Rd Number 1 opp. Jalgam Vengal Rao Park Dwarakapuri, Banjara Hills Hyderabad, Telangana 500034

Kochi

No. 38/2130- C2, DND Arcade Anjumana Road, Edappally Kochi, Kerala 682024

Mangalore

No. 208, 1st Floor, Inland Avenue MG Road, Kodailbail, Mangaluru Karnataka 575003

Noida

B-417/20, Pacific Business Park Plot No-1, Site-IV, Sahibabad, IV Sahibabad Industrial Estate Ghaziabad, Uttar Pradesh 201010

Punjab

Plot No 595, 2nd Floor Phase 9, Industrial Area Sector 66, Opp Bestech Square Sahibzada Ajit Singh Nagar Punjab 160059

Other Locations in India

Assam

Chandan Nagar, Beltola Tiniali Guwahati, Assam 781028

Coimbatore

56, 2nd Floor, Bharathi Park Cross 2 Saibaba Colony, Coimbatore Tamil Nadu 641011

Goa

Shop No. S01 and S02 Landscape shire, Caranzalem Panaji, Goa 403002

Indore

304, Third Floor , NRK Biz Park Plot No. 397, 405, PU4 Scheme No. 54, Indore Madhya Pradesh 452010

Kolkata

DN 12, 7th Floor, Sector V Bidhannagar, Kolkata West Bengal 700091

Mysore

No. 441, 2nd floor Dhanalakshmi Plaza New kantharaja Urs Road T K Layout, Mysore Karnataka 570023

Odisha

Plot No N4/345, 4th Floor IRC village, Nayapalli Bhubaneshwar, Odisha 751015

Raipur

No. 207, 2nd Floor Lal Ganga Buisness Park, Pachpedi Naka, Raipur, Chhattisgarh 492001

Visakhapatanam

Tirupati | Madurai | Gulbarga | Solapur | Jodhpur | Bhiwandi | Shivamogga | Shimla | Jalandhar | Dhanbad | Jamshedpur | Jabalpur | Bareilly | Allahabad | Varanasi | Bilaspur | Sonipat | Aurangabad | Agra | Siliguri | Patna | Bhopal | Kanpur |

No. 50-37-6, 2nd Floor, Sri Sai Enclave Raja Rammohan Roy Road Nehru Nagar TPT/VUDA Colony Jagadamba Junction, Visakhapatanam Andhra Pradesh 530013

Bangalore 1

No. 785, 3rd Floor Axis Sai Jyothi, 15th Cross Road Phase I, Sarakki Extension 100 Ft. Road, J. P. Nagar Bangalore, Karnataka 560078

Dehradun

No. 64/65, Third Floor, Prabhat House Nari Ship Mandar Marg Chakrata road, Dehradun Uttarakhand 248001

Gurugram

8th Floor, Imperia Mindscape Golf Course Extension Road Sector-62, Gurugram Haryana 122001

Jaipur

Plot No. 128, Mohan Nagar Gopalpura Bypass beside Ridhi Sidhi Fly Over Jaipur, Rajasthan 302019

Lucknow

1st Floor, TC 24 Bhavya Corporate Tower Vibhuti Khand, Gomti Nagar Lucknow, Uttar Pradesh 226010

Nagpur

K Rao Complex 3rd Floor Shubhash Road opposite Gandhisagar Lake Nagpur, Maharashtra 440018

Pimpri Chinchwad

No. 1001, 10th Floor Amar Business Park Ram Nager, Baner Pune, Maharashtra 411045

Surat

C - 226, 2nd Floor, Monarch Gaurav Path, Palgam Surat, Gujarat 395009

Bangalore 2

No. 600A, 6th Floor Plama Square, Hennur Main Road Kalyan Nagar Post, Above D-mart Hennur, Bangalore Karnataka 560043

Delhi North

P.P. Trade Center, Plot No. P-1, 301 3rd Floor, Wazirpur Distt Centre Netaji Subhash Place, Pitampura New Delhi 110034

Hubli

No. 319, Marvel Artiza Vidyanagar, opposite KIMS Hubli, Karnataka 580031

Jharkhand

No. 170, 2nd Floor Harsh Complex, Tagore Hill Road Morabadi, above Bank of India Ranchi, Jharkhand 834008

Ludhiana

Sethi square, SCO No 107 First Floor, Phase 1, Urban estate dugri Ludhiana, Punjab 141002

Navi Mumbai

Plot No-05, 1803-1806 Kesar Solitaire, Palm Beach Rd Sector 19, Sanpada, Navi Mumbai Maharashtra 400705

Pune

No. 1001 and 1002, 10th Floor Vikram Monarch, University Rd Modibaug, Model Colony Shivajinagar Pune, Maharashtra 411016

Vijayawada

551-A, 1-B 3rd Floor, bearing Door No 40 Chandramoulipuram Tikkle Road, Vijayawada, Andhra Pradesh 520010



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