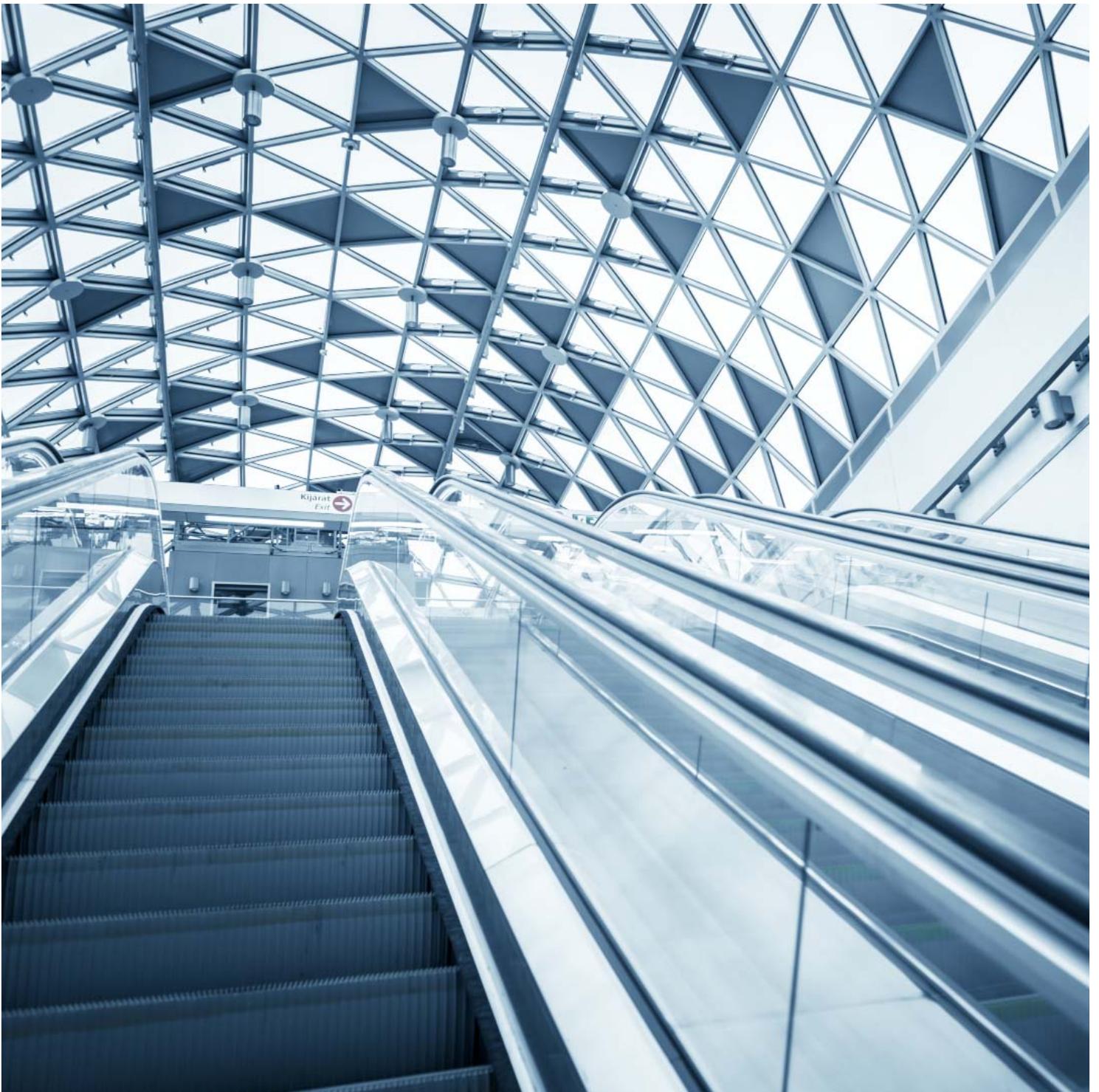


KÖHLER
Elevator & Escalator

Escalator and
Passenger Conveyor
Solutions





KÖHLER Elevator and Escalator mission is to improve our client's sense of gracious living in every experience they have with our products or services.

To make this happen, we try to live on the leading edge in the design and technology of product and process. And we maintain a single level of quality regardless of price point across our many product and service categories.

We set a standard of excellence, yet drive for continuous improvement as we respond to the dynamic of the local marketplace across the world.



KÖHLER
Elevator & Escalator

Contents

The KÖHLER Profile	6
KÖHLER Escalator and Passenger Conveyor	9
Comfortable	10
Energy Saving	12
High Efficiency	14
Function	16
Scheming Guide	20
KÖHLER ULTRA High Glossy Handrail	28

The KÖHLER Profile

Driven by a market need for custom-tailored escalator units, KÖHLER escalator solutions provides flexible designs that will fit into a wide range of hoistways — whether for commercial buildings or public transportation usage, KÖHLER provides the optimal solution for any new construction or modernization project. KÖHLER provides you with many design options. Drawing on the unique capabilities of our German design centers, we take full advantage of precise engineering coupled with efficient manufacturing expertise. Proven engineering strength, global sourcing, and field-tested quality, along with our willingness to accept challenging requirements, set us apart from the competition. Over the past decades, KÖHLER laid the groundwork for today's product offerings by combining the global leadership of our diverse operating companies. KÖHLER takes pride in being the leading open architecture provider in the elevator industry. Equipment, installation, and service choices are made by building owners and their representatives. Satisfaction and the knowledge of a job well done over decades of service.





KÖHLER

Escalator and Passenger Conveyor

KÖHLER provides complete solution for Escalator and Passenger conveyor. we have gathered highest quality and long lasting components for our escalator and passenger conveyor, we provide commercial and public transportation usage Escalator and Passenger conveyor.

Public transportation

KÖHLER has gathered the most high-tech, top quality and long lasting equipments and components for public transportation faculties that brings highest performance and efficiency all day long (24/7). also it is produced with the matching and required IP ratings.

Commercial

flexible to interchange in the markets. Therefore, it is convenient for technicians to repair and maintain; Moreover, it significantly reduces repair and maintenance cost.

Comfortable

Human Oriented Enabling you to live freely

By integrating the concept of human-oriented design, we put our efforts into manufacturing flawless products in details and design. Through numerous tests and experiments, we have finally reached the peak of safety, performance and stability in our escalators, and our products make you feel very comfortable, thus providing you an enjoyable experience in your daily life.



High-performance control system

KÖHLER escalators redefines control concept in the industry. By applying modular designs, our control system is more compact and integrated runs more steadily than any similar system. Outstanding digital processing capacity and operation efficiency improves energy-saving effects of our escalators to the greatest extent.

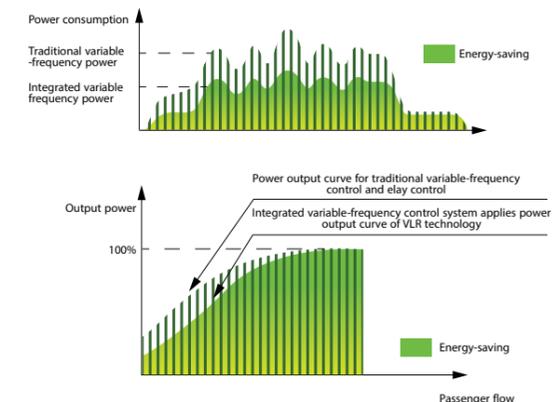
A complete lightning protection design is built in the escalator control system, with CPU+OSP redundant technology applied in its controller, the system reliability is fully guaranteed. The control system completely complies with EMC (electromagnetic compatibility) standard.



Energy-saving and energy regeneration technology

By detecting passenger flow and automatically adjusting the speed curve, KÖHLER escalators can achieve effective energy-saving in the whole process of its operation. By detecting DC busbar voltage of the driver and automatically feeding regenerated energy of the system back to the power grid, KÖHLER escalators greatly improve their energy-saving effects.

Saving energy in the entire traveling process: VLR technology realizes effective energy saving



Convenient remote monitoring system

The system can be connected with customers monitoring system via RS485 port, in order to carry out real-time monitoring of escalator operation messages, which is very convenient for the escalator maintenance and right approach to demands of modern intelligent building control system for escalators.

Energy Saving

Creating new era of energy saving

We always put environmental protection as one of our utmost important Concerns when designing and developing our products. In this regard we implement a new type of control system integrating converter and microcomputer-based control board. In this complex the drive system upgrades driving efficiency of the escalator significantly and guarantees low energy consumption, thus achieving unprecedented environmental protection.



Multiple safety protection

Safety devices are provided at each component of the escalator. The control system has powerful device-testing and fault-diagnosis capabilities and improves safety performance of the escalators in a passive yet effective manner.

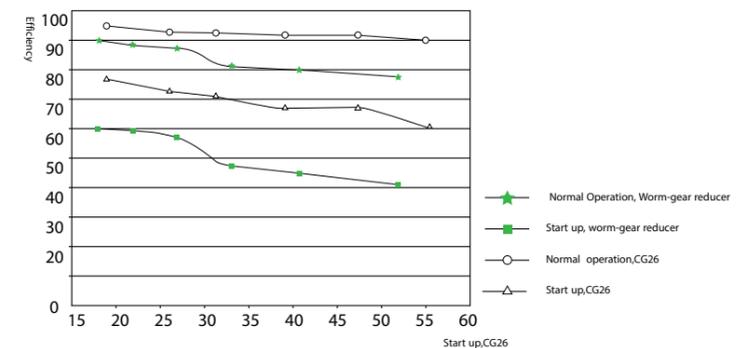
Comfortable ride feeling

By applying variable-frequency drive technology specially designed for the escalator and using new generation of AC vector controller-voltage regulator-speed governor technology, the escalators can achieve smooth and stable transition during automatic acceleration and deceleration adjustment and at the same time they travel more stable, resulting in comfortable and smooth ride experience.

High-performance traction machine

KÖHLER escalator reducer adopts ZC drive and has the features of high torque, small size, low noise, low vibration and steady operation. Its noise level is lower than 57dB and its drive efficiency during normal operation is higher than 88%. The motor used has a variable-frequency drive, which provides stable start-up and applies braking and stopping force in a smooth yet effective manner to escalator. With power consumption of 5.5-15kW,

CG26 worm-gear-helical-gear reducer has the advantages of both worm-gear-worm-drive and helical gear drive. The high-speed end is provided with worm-gear-worm-drive and has the characteristics of low noise, low vibration and high safety coefficient. The low-speed end is provided with helical-gear drive. This configuration guarantees high driving efficiency and energy saving characteristics of the entire traction machine. Driving efficiency of the traction machine is as high as 92% and power range is 1137-kW.



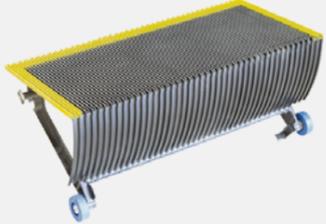
High Efficiency

Scientific integrated structure installation and commissioning is easier and more convenient

We believe that functions of an escalator are not necessarily proportional to the operation complexity. Therefore, our escalators are designed to apply an integrated structure, so that the equipments are run more precise and more efficient and, which in turn allows easier and more convenient commissioning.



Standard configuration and optional configuration of parts

Parts	Standard Configuration	Optional Configuration
Landing Board	 <p>Aluminum Series</p>	
Step	 <p>Aluminum Series</p>	 <p>Black Aluminum Series</p>
Handrail Color	 <p>Black Red Yellow Green Blue</p>	
Traction Machine	 <p>Geared</p>	



KÖHLER

ULTRA High Glossy Handrail

Thermoplastic urethane handrails provide diverse solutions for all of our custom requirements.

- Smooth tracking ensures longer operational life of all handrail & drive components.
- Easy to clean - no harsh solvents required.
- Superior vandalism resistance.
- Recyclable.

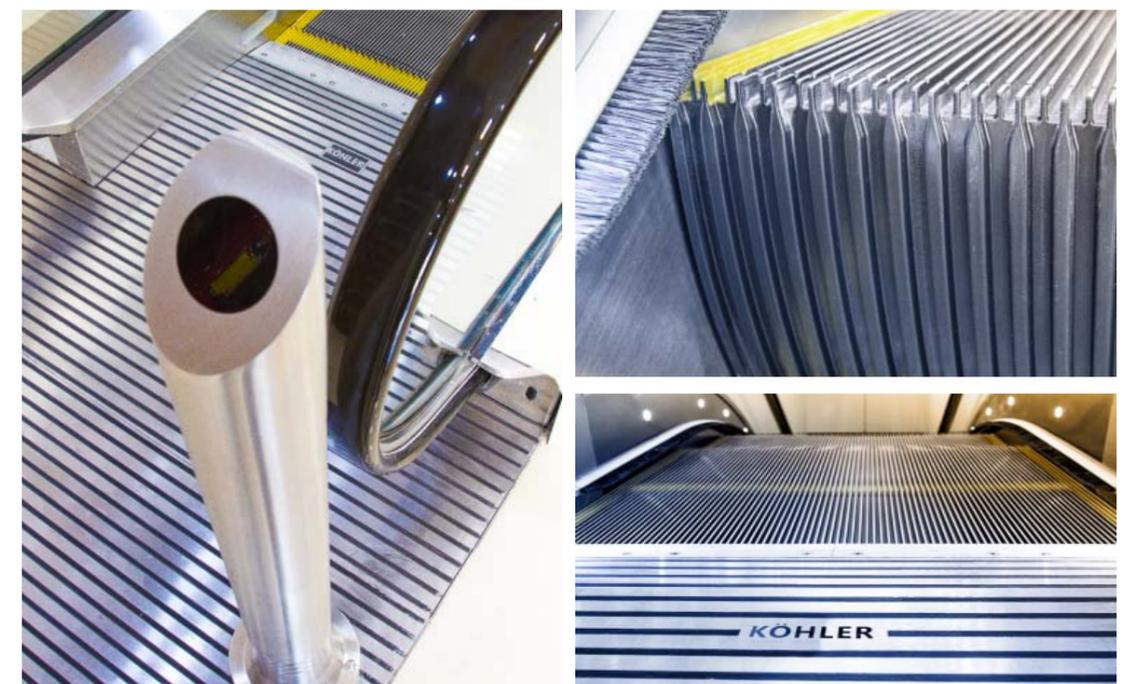
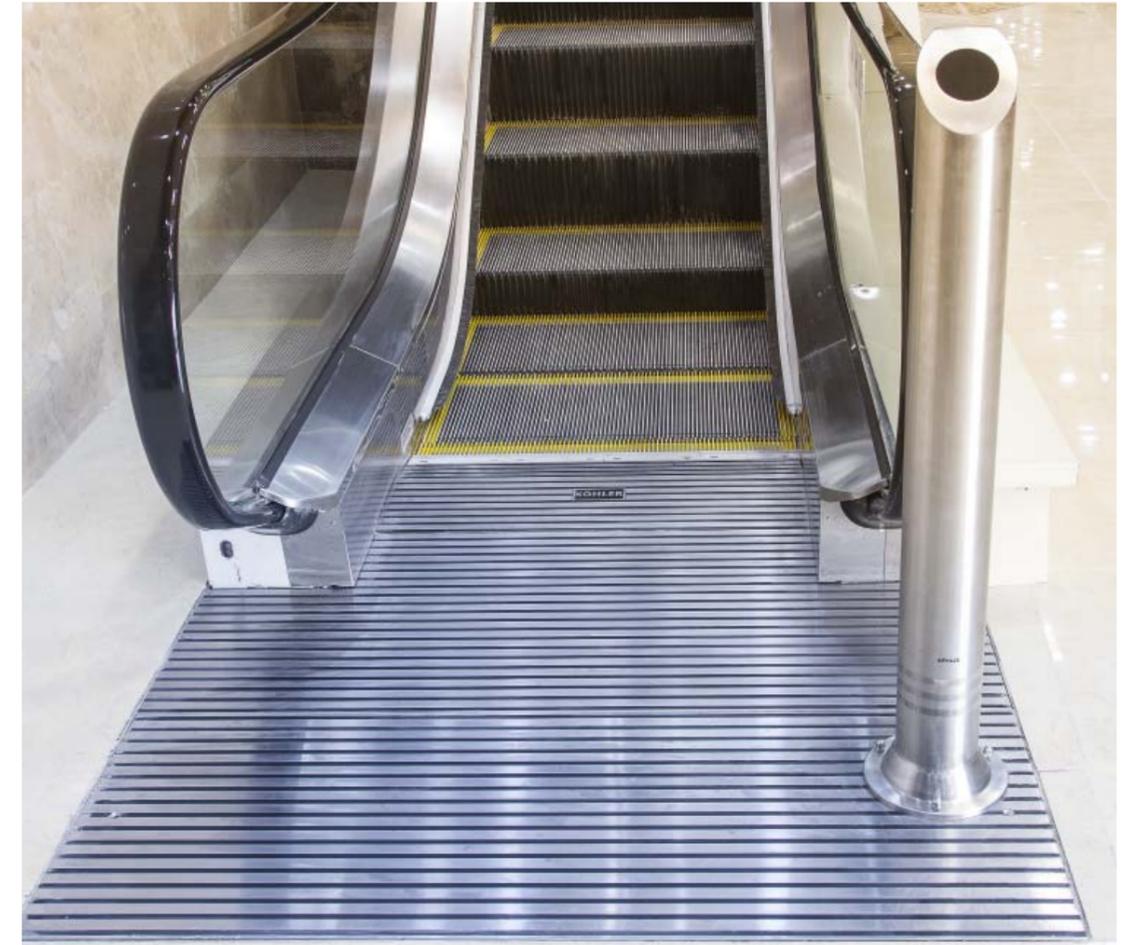
POLYURETHANE ROLLERS

Our rollers are manufactured using high-grade materials and are made of polyurethane tread material to provide optimum balance between performance and durability

Advantage of KÖHLER Escalator & Passenger Conveyor

- Advanced Electrical and mechanical technology
- Integrated structure design
- Safety, reliability, energy saving, riding comfort
- Environmental features and variety configuration
- Flexible in matching the appearance of the buildings

Rise (mm)	Escalator: 2500 ~ 27000 Passenger Conveyor: 2500 ~ 12000
Speed m/s	0.5 - 0.75
Inclination Angle	Escalator: 30° - 35° Passenger Conveyor: 0° - 10° - 11° - 12°
Steep Width (mm)	Escalator: 600 - 800 - 1000 Passenger Conveyor: 800 - 1000 - 1200
Installation Position	In door - Out door



This arrangement is used mainly in department stores and public transport buildings with a heavy traffic volume. When there are three or more escalators, it should be possible to reverse the traveling direction according to the traffic flow, this arrangement is economical, since no inner lateral claddings are required.

KÖHLER
Elevator & Escalator



Scheming Guide

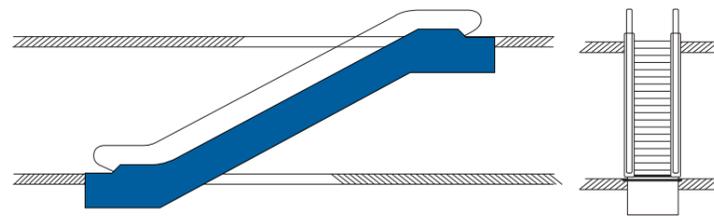
Logical Positioning Systematic Layout

Factors influencing escalator arrangement:
 Building structure Installation site and direction of traffic flow
 Traffic volume intensity Area of application (commercial sector public transport)
 The customers special requirements

The following arrangements are possible:

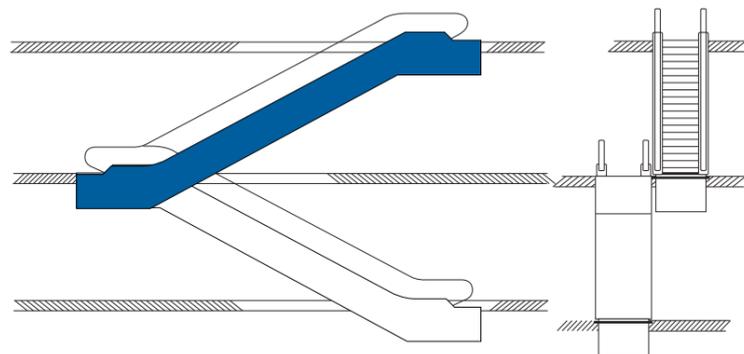
Single unit

The single unit is used to link 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.



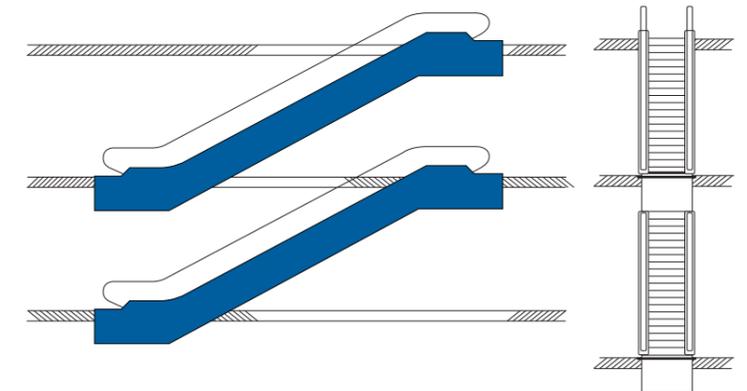
Continuous arrangement (one-way traffic)

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



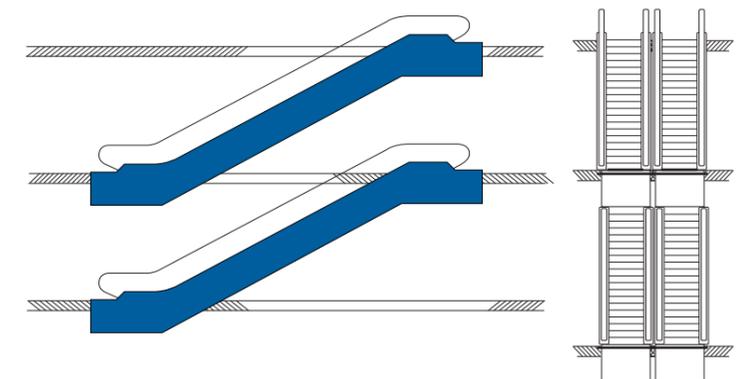
Interrupted arrangement (one-way traffic)

This arrangement is somewhat inconvenient for users, but advantageous for department store owners, since the short detour to the next unit and the spatial separation between up and down travel is ideal for leading customers past strategically placed advertising displays.



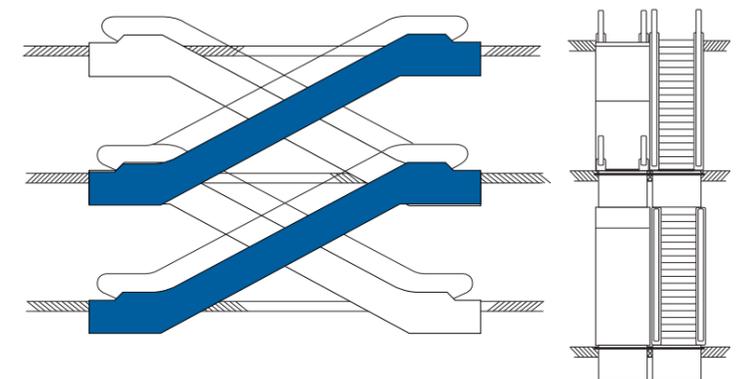
Parallel, interrupted arrangement (two-way traffic)

This arrangement is used mainly in department stores and public transport buildings with a heavy traffic volume. When there are three or more escalators, it should be possible to reverse the traveling direction according to the traffic flow, this arrangement is economical, since no inner lateral claddings are required.



Crisscross, continuous arrangement (two-way traffic)

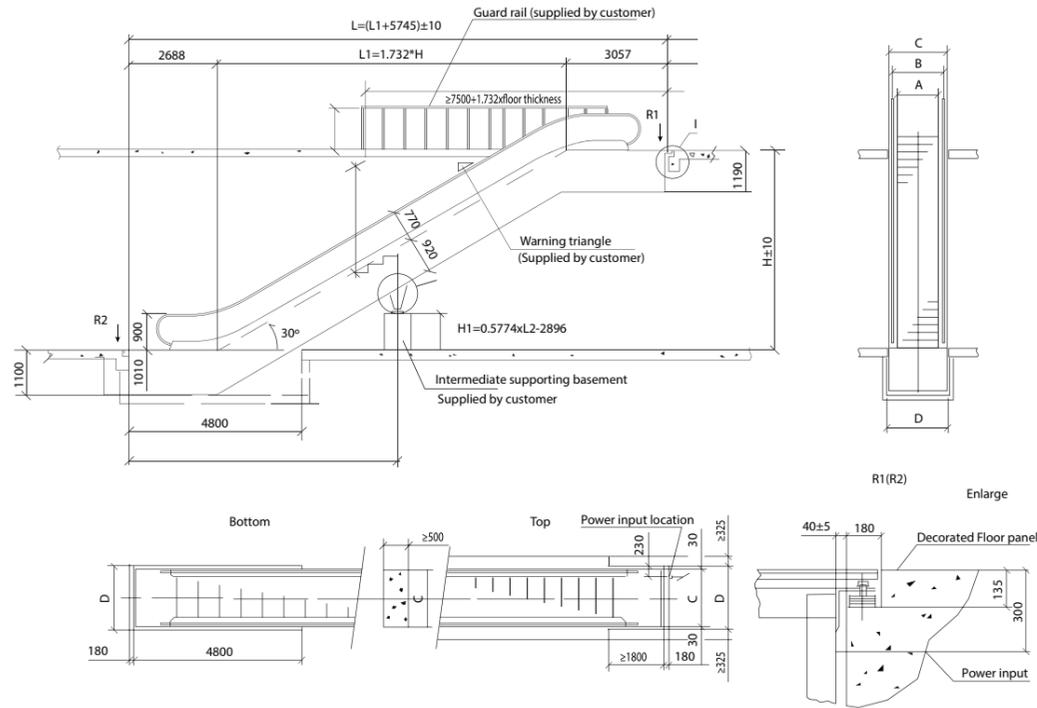
This arrangement is used mainly in major department stores, public buildings and public transport buildings where transport times between several levels should be kept to a minimum.



Escalator/Shaft Plan

Series 1200-30-3

Commercial Escalator

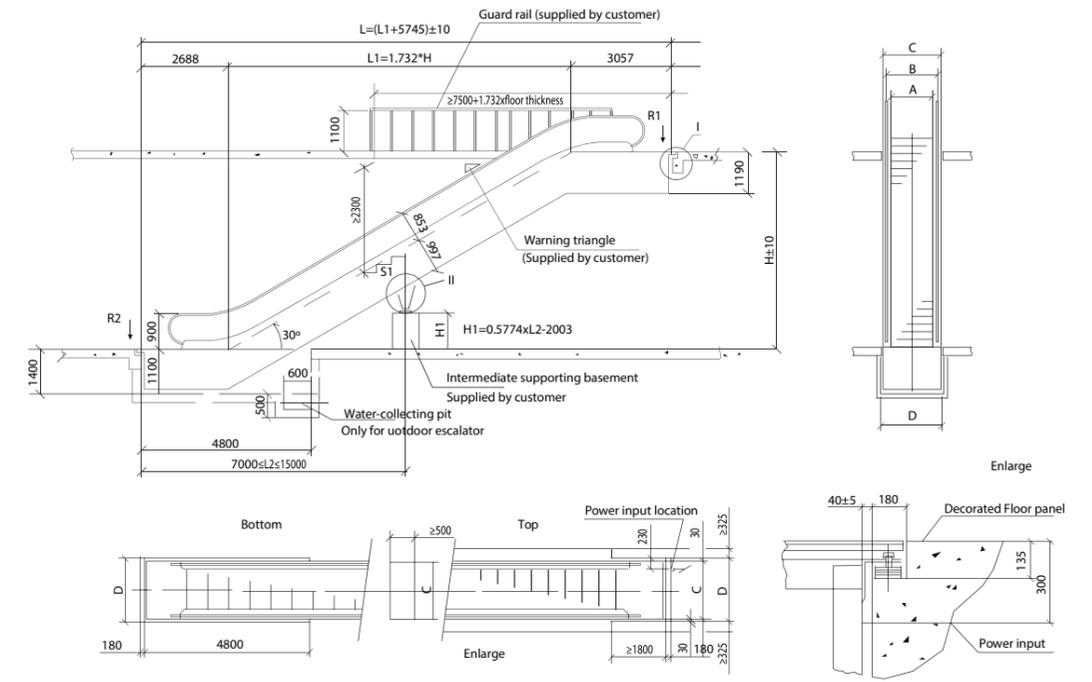


Model						
Basic dimensions		HD-1200-30-60	HD-1200-30-80	HD1200-30-100		
A Step Width		600	800	1000		
B Central distance of handrail		838	1038	1238		
C Exterior width of the passenger conveyor		1200	1400	1600		
D Min. width of pit		1260	1460	1660		
Rated speed (V=0.5m/s)		Angle of inclination (α=30°)				
Model	Rise (mm)	Net weight (kg)	Supporting load per unit			Motor power (kW)
			R1 (kN)	R2 (kN)	S1 (kN)	
HD-1200-30-60 (4500p/h)	5500	7000	62	56		7.5
	6000	7500	65	59		7.5
	6500	8000	64	56	85	7.5
	7000	8500	69	61	90	7.5
	7500	9000	74	66	95	7.5
HD-1200-30-80 (6750p/h)	5500	7800	70	64		7.5
	6000	8300	75	69		7.5
	6500	8500	69	61	90	7.5
	7000	9000	74	66	95	7.5
	7500	9500	79	71	100	11
HD-1200-30-100 (9000p/h)	5500	8700	82	74		11
	6000	9200	85	79		11
	6500	9700	74	66	100	11
	7000	10200	79	71	105	15
	7500	10700	84	76	110	7.5*2

- Remarks:**
- When the step width is 600mm, the up horizontal section of the escalator will be increased by 500
 - When the escalator is double-drive, the up horizontal section of the escalator will be increased by 500
 - The maximum height of the escalator is 7.5 meters

Series 1200-30

Public Transport Escalator



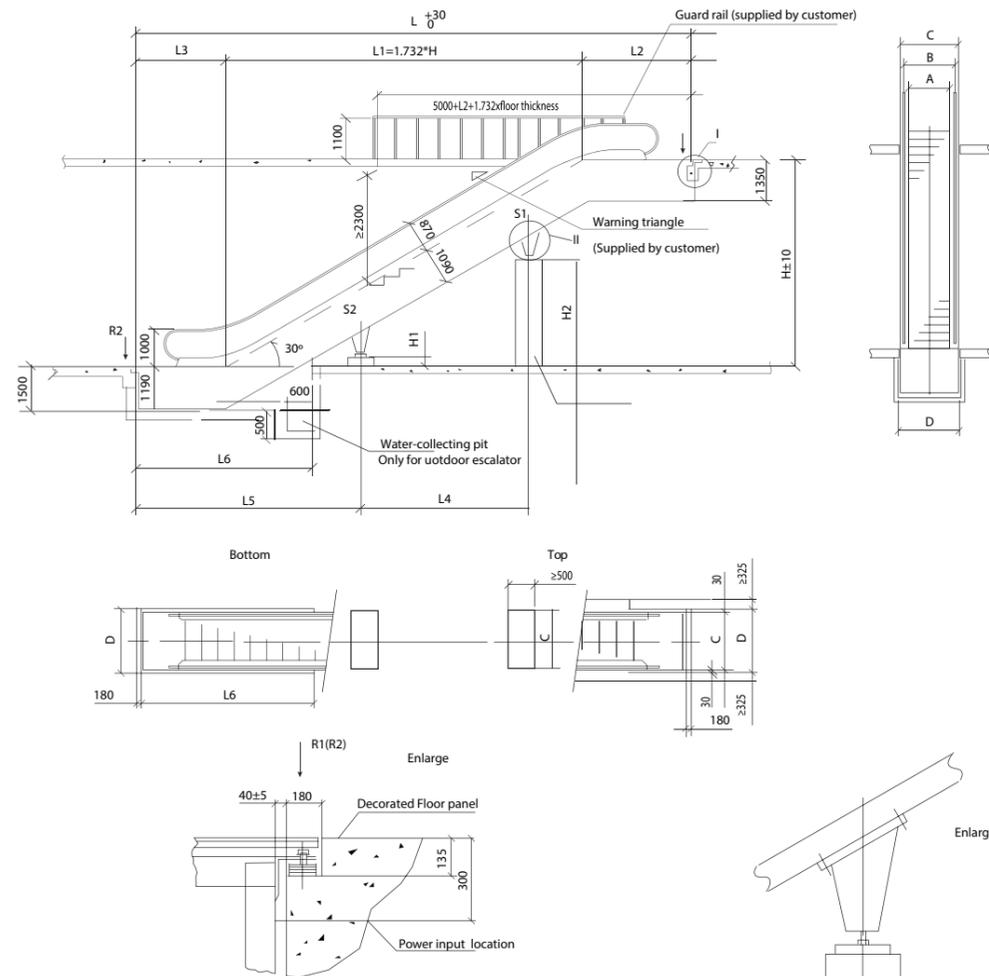
Model						
Basic dimensions		HZ880	HZ8100			
A Pallet Width		800	1000			
B Central distance of handrail		1038	1238			
C Exterior width of the passenger conveyor		1400	1600			
D Min. width of pit		1460	1660			
Rated speed (V=0.5m/s)		Angle of inclination (α=30°)				
Model	Rise (mm)	Net weight (kg)	Supporting load per unit			Motor power (kW)
			R1 (kN)	R2 (kN)	S1 (kN)	
HD-1200-30-80 (4500p/h)	6500	9000	84	76	105	11
	7000	9500	87	80	110	11
	7500	10000	91	84	115	11
	8000	10500	95	87	122	11
	8500	11000	99	90	130	11
	9000	11500	113	93	142	11
	9500	12000	117	97	152	7.5*2
	10000	12500	121	100	164	7.5*2
	6500	10000	88	76	109	11
	7000	10500	91	79	115	7.5*2
HD-1200-30-100 (9000p/h)	7500	11000	94	86	120	7.5*2
	8000	11500	98	89	125	7.5*2
	8500	12000	104	94	132	7.5*2
	9000	12500	120	97	145	7.5*2
	9500	13000	126	102	157	7.5*2
	10000	13500	132	110	169	11*2

- Remarks:**
- When the escalator is double-drive, the up horizontal section of the escalator will be increased by 500
 - The maximum height of the escalator is 12 meters

Escalator/Shaft Plan

Series 2200

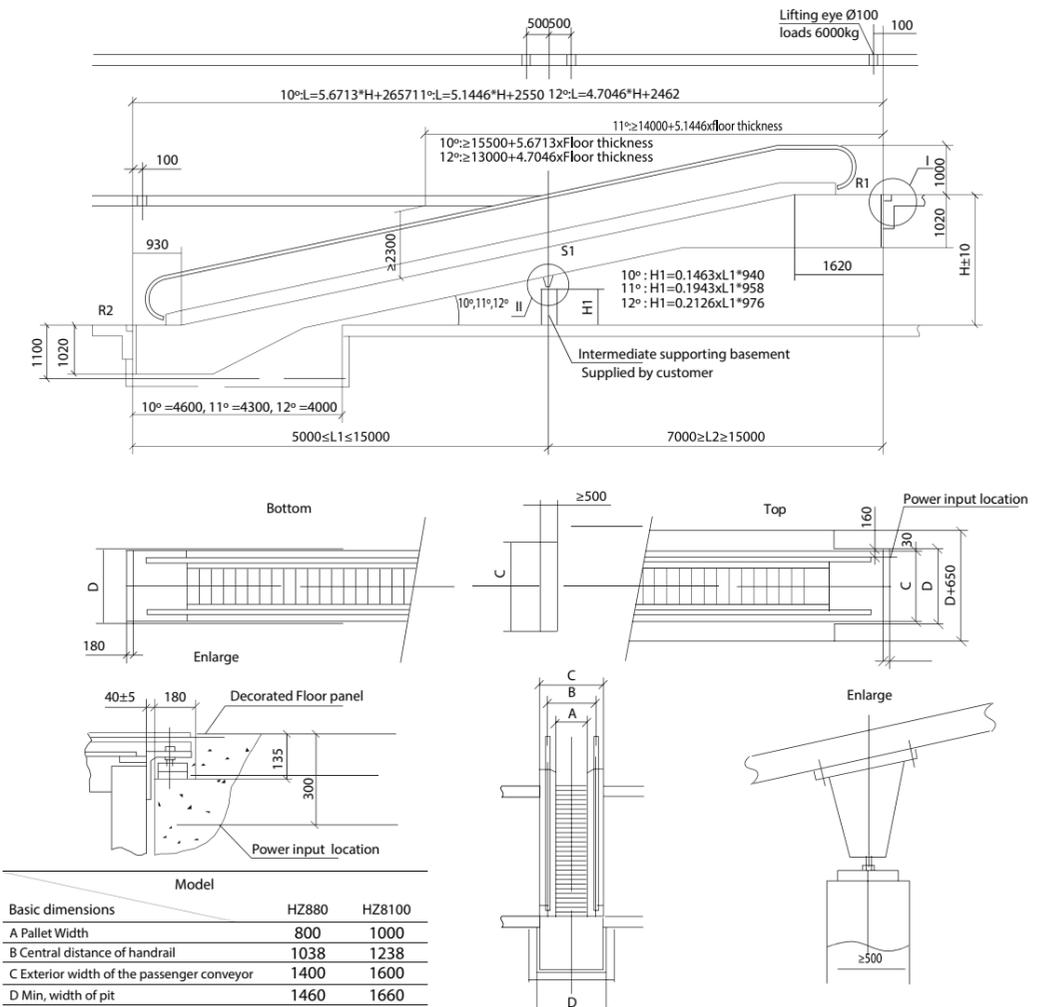
Public Transport Heavy Duty



Model		HD-2200-30-80	HD-2200-30-100
Basic dimensions			
A Step width		800	1000
B Central distance of handrail		1162	1362
C Exterior width of the escalator		1490	1690
D Min. width of pit		1550	1750
Rated Speed (V≤0.65m/s)		Angle of inclination (α=30°)	
(m)		2.7/2	3/4
L2		3790	4138
L3		3357	3425
L2		3390	3738
L3		2957	3225
L6		5800	6200
L6		5400	5800

- Remarks:**
- When the escalator is double-drive, the up horizontal section will be increased by 800
 - L4, IS, HI, H2, RI, R2, S1, S2 Will be provided by our company
 - The power of escalator will be provided by our company
 - The maximum designed height of the escalator is 22 meters

Passenger conveyor Shaft Plan



Basic dimensions	HZ880	HZ8100
A Pallet Width	800	1000
B Central distance of handrail	1038	1238
C Exterior width of the passenger conveyor	1400	1600
D Min. width of pit	1460	1660

10°	Rated speed (V=0.5m/s) A=800						Rated speed (V=0.5m/s) A=100						
	H(mm)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kN)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kW)
3000	9700	44	36	90	5.5	10000	51	43	107	7.5			
3500	10700	49	41	103	7.5	11100	57	49	122	7.5			
4000	11700	54	46	116	7.5	12100	64	55	138	11			
4500	12700	60	51	129	7.5	13200	70	61	153	11			
5000	13700	66	57	141	7.5	14200	77	67	168	11			
5500	14700	72	63	153	11	15300	84	74	183	15			
6000	15700	78	69	165	11	16300	91	81	198	15			
11°	H(mm)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kN)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kW)
	3000	9100	42	34	83	5.5	9400	48	40	90	7.5		
3500	10000	45	38	95	7.5	10400	53	45	113	7.5			
4000	11000	51	43	107	7.5	11400	60	51	127	11			
4500	11900	55	47	119	7.5	12300	65	56	141	11			
5000	12800	61	52	130	7.5	13300	70	62	154	11			
5500	13700	63	57	141	11	14200	77	67	168	15			
6000	14600	70	63	153	11	15200	84	74	183	15			
12°	H(mm)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kN)	NW(kg)	R1(kN)	R2(kN)	S1(kN)	S2(kN)	P(kW)
	3000	8600	39	31	77	5.5	8900	45	37	92	7.5		
3500	9500	43	35	88	7.5	9800	50	42	105	7.5			
4000	10300	48	40	94	7.5	10700	56	47	117	11			
4500	11000	52	44	110	7.5	11500	61	52	130	11			
5000	12000	57	48	120	7.5	12400	66	57	143	11			
5500	12800	61	52	130	11	13300	71	62	155	11			
6000	13600	66	57	141	11	14200	77	67	168	15			

- Remarks:**
- When the step width is 600mm, it adopts double drive
 - When the passenger conveyor is double drive, the up horizontal section of the passenger conveyor will be increased by 500
 - The maximum height of the passenger conveyor is 7.5 meters
 - S2 is supporting force of the second middle supporting

Function

Standard Function

Item	Function	
1	Driving chain safety device	Stop escalator if the driving chain is broken or excessively elongated
2	Over speed detecting device	Detecting device of running speed, the escalator will stop when the running speed exceeds normal speed
3	Brake monitoring device	Detect if the brake acts normally
4	Skirt panel safety device	Stop escalator if objects are caught between step and skirt panel
5	Step roller safety device	Stop escalator if the step rollers are deformed or jacked
6	Step roller safety device	Stop escalator when the steps are broken
7	Comb plate safety device	Stop escalator if objects are caught between comb plate and step
8	Handrail entry and exit safety device	Stop escalator when objects are caught in the entry and exit of handrail
9	Step chain safety device	Stop escalator if the step chain is broken or elongated
10	Non-reversing safety device	Stop escalator if its direction of travel is reversed
11	Handrail antistatic device	Prevent static electricity which is generated by handrail
12	Motor overheat protection device	Stop escalator if motor temperature is over the limit
13	Step missing detecting device	Stop escalator if the step is missing
14	Emergency stop switch	The switch is used when the emergency stop is needed to the escalator
15	Green Cation light	Take care of the passengers for riding safety
16	Over load detection (Standard function)	Stop escalator if current is over in MCCB
17	Over flow sensor device (Outdoor standard function)	Stop escalator if seepage is over default height in lower maintenance room

Optional Function

Item	Function	
1	Handrail broken safety device	Stop escalator if handrail breaks
2	Handrail speed detector	Stop escalator if handrail's speed is abnormal (optional function for indoor escalator, standard function for outdoor escalator)
3	safety brush of skirt panel	Prevent little matter drop into the clearance between skirt panel and step
4	Auto start	Realize the function of auto running and auto stop
5	Auxiliary brake	Stop escalator when the running direction is changed suddenly
6	Heating device for truss	When environment temperature is below, heating should be supplied for whole escalator truss
7	Heating device for comb plate (outdoor standard function)	When environment temperature is below, heating should be supplied for comb plates





KÖHLER Elevator GmbH
Benzstrasse 5
72793 Pfullingen
Deutschland

Tel./Fax.: +49 (0) 7121 7068 077
Email: contact@koehlerelevator.de
Website: www.koehlerelevator.de