



*Dedicated to People Flow™*



OPTIONS AND PLANNING DIMENSIONS

# KONE TransitMaster™ 140 escalators



# KONE TransitMaster™ product range

Well designed and manufactured escalators are a must for today's highly demanding public areas. They are key to ensuring the smooth, efficient and safe flow of people traveling within a building's environment.

KONE prides itself on delivering the 'low risk' option to customers. We offer 'peace of mind' in terms of product design, customer support and project management, combined with the highest levels of efficiency and safety during the installation phase.

**The versatile KONE TransitMaster escalator and autowalk range is ideal for new installations, and incorporates five specific models:**

- TransitMaster 120 escalator
- TransitMaster 140 escalator
- TransitMaster 165 horizontal autowalk
- TransitMaster 185 horizontal autowalk
- InnoTrack horizontal autowalk

Each one is specifically designed to meet the exact demands and needs of the market sector, whether it's a more standard solution for the retail areas of an airport, or a mass transit airport or railway station system.



# TransitMaster™ 140 – built for reliable and long-term operation

The KONE TransitMaster 140 is a heavy-duty escalator targeted primarily towards the infrastructure segment. This segment covers metro/underground systems as well as airports, rail systems and other transit centers. Here it is part of the total KONE solution offering together with other KONE products such as:

- Commercial escalators ----- e.g. KONE TravelMaster™ 110
- Mid - high duty escalator ----- e.g. KONE TransitMaster™ 120
- Horizontal autowalk ----- e.g. KONE TransitMaster™ 165 and TransitMaster™ 185
- Passenger elevators----- e.g. KONE MonoSpace®
- Goods elevators ----- e.g. KONE TranSys™
- Scenic elevators ----- based on KONE MonoSpace® or KONE MonoSpace® Special
- Modernization solutions ----- e.g. KONE EcoMod™2
- Automatic building doors

The versatile TransitMaster 140 is a public transportation escalator for the highest people flow and long, even continuous operating hours. Our heavy-duty escalators are designed to enable the seamless flow of large numbers of passengers.

The KONE TransitMaster 140 is fulfilling the main customer, from both a technical and visual point of view, to fulfill the main customer requirements of the target segments:

- Safety and reliability
- Optimized total cost of ownership
- High quality in terms of technical performance, without compromising on visual appearance
- Flexible offering and order engineering to meet customers' various needs

## Overview of technical specifications

KONE TransitMaster 140 basic data*	
Inclination	27.3°, 30°**
Horizontal steps	2/2, 3/3, 4/4
Transition radii (top/bottom)	1.5/1.0, 2.7/2.0 and 3.6/2.0
Maximum rise	18 m
Operational environment	Indoor, full-outdoor
Step width	1000 mm
Balustrade type	<ul style="list-style-type: none"> <li>• 10 mm tempered glass with offset handrail profile</li> <li>• Brushed stainless steel solid inclined and solid vertical balustrade panels</li> <li>• Balustrade extension of 400, 700 and 900 mm</li> </ul>
Balustrade height	1000 mm, 1100 mm
Speed	0.4 m/s with inverter, 0.5 m/s, 0.65 m/s and 0.75 m/s
Step chains	Outside roller chains (Ø 100 x 25 mm)
Duty cycle	20–24 hours/day****
Typical service life	Up to 150,000 hours***

\* Other custom-built specifications available on request

\*\* Other inclinations such as 24.5° are available on request

\*\*\* Actual service life is directly related to operation hours and load profile.  
Contact your KONE representative for more information

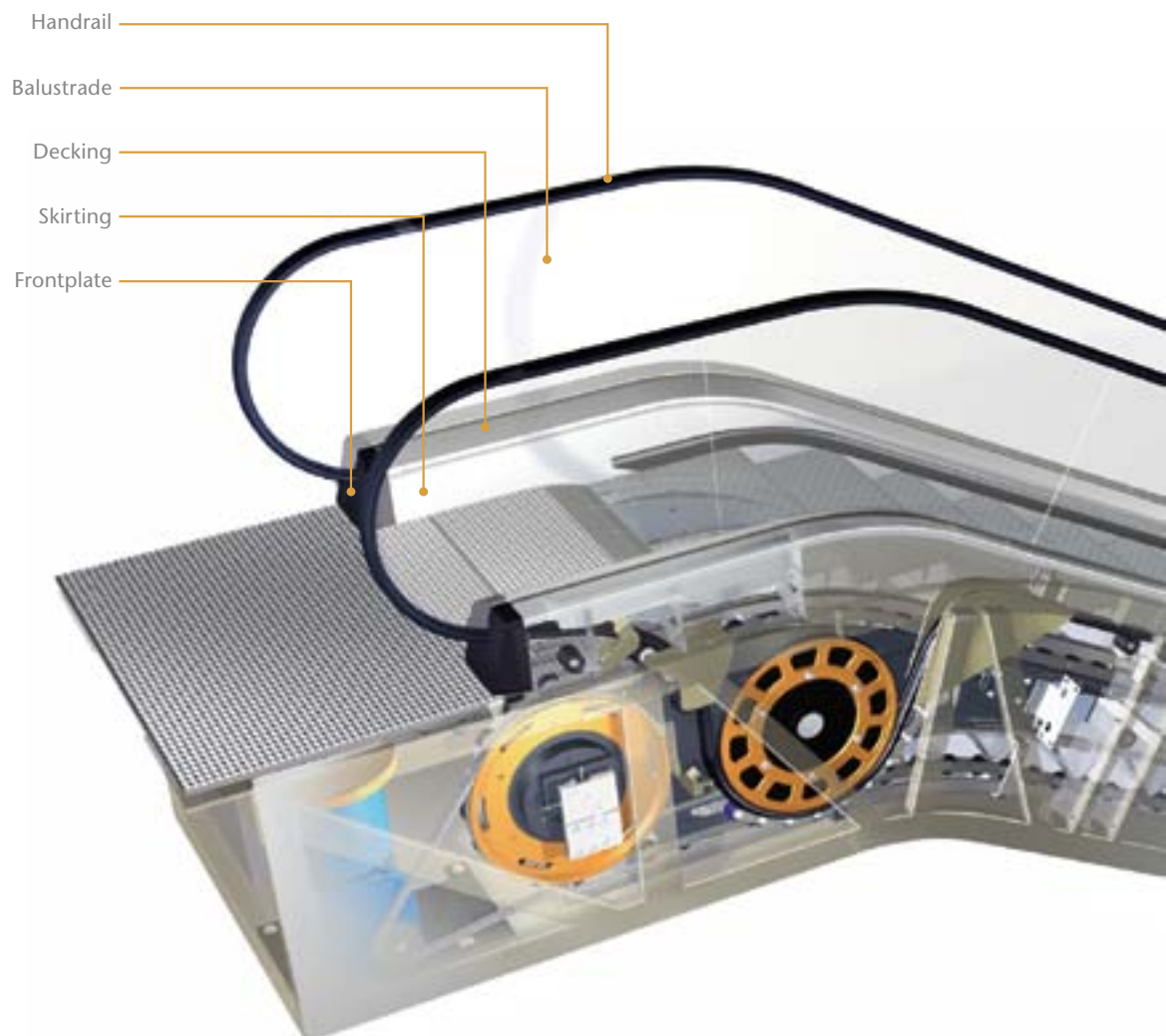
\*\*\*\* 24 hours duty cycle is possible with additional maintenance



# Eco-efficiency

KONE firmly believes that sustainable buildings are our future. We are committed to helping customers achieve their environmental objectives by providing environmentally responsible products and services.

- Stand-by speed operation reduces the escalator speed when no passengers are traveling, thus further reducing energy consumption and increasing equipment lifetime.
- The availability of a lubrication-free step chain means no oil, a cleaner escalator and environment, reduced fire hazard, simpler cleaning and easier maintenance.
- Escalator packaging and timber protection are examples of our commitment to using wood taken from sustainable forests.
- Various LED lighting solutions allows an energy saving of up to 80% compared to conventional lighting.
- Regenerative solutions recover energy created when the escalator is used and feed it back into the system.
- All of our production operations are certified according to the ISO 14001 standard

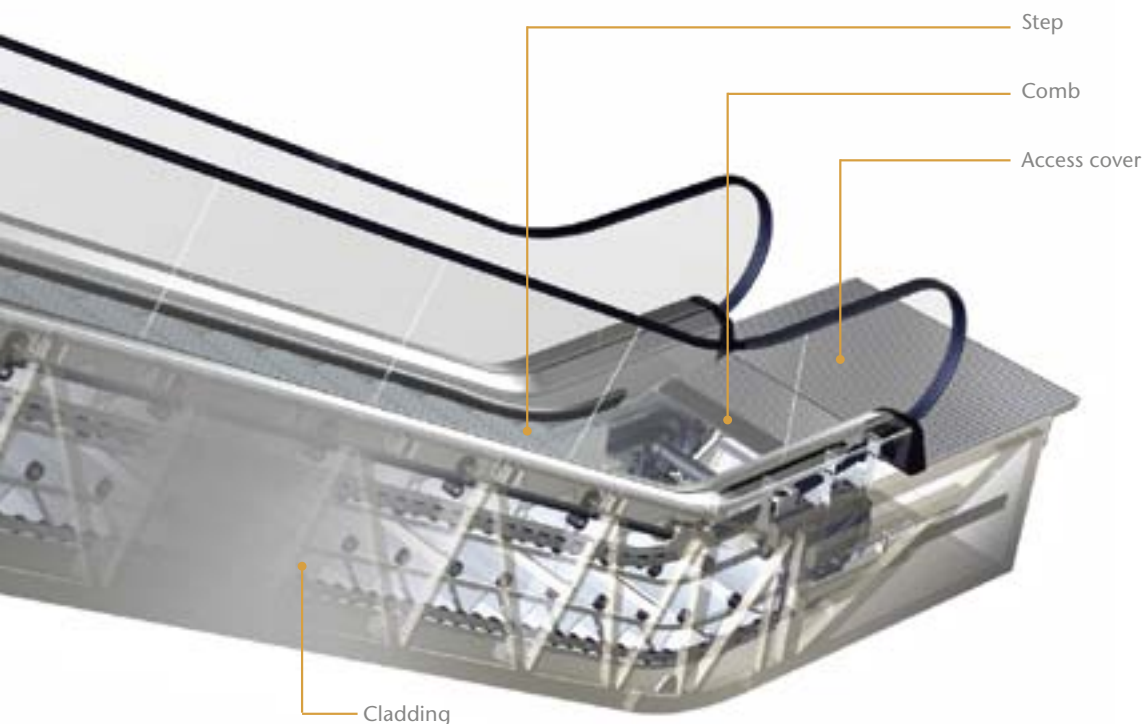


# Safety options

The standard safety features of the KONE TransitMaster 140 according to the EN 115-1:2008 + A1:2010 safety code are the following:

- Emergency stop buttons for passengers in the top left and bottom right handrail inlet front plates
- Auxiliary brake is standard for units above 6 m vertical rise and is available as an option for units below 6 m
- Broken step chain (chain tension) switches in the return station which stop the escalator in case of failure of the step chain
- Handrail inlet switches with contacts at the handrail inlets into the balustrade heads
- Comb plate impact device switches which stop the escalator in case objects become trapped between the comb teeth and the moving step band
- Step sag switches, which stop the escalator if a step sags by more than 5 mm before it enters the comb
- Step guards at the top and bottom
- Step band locking device
- Speed sensor system, which electronically monitors the motor for over/under speeds and step band reversal
- Motor thermal protection for temperature monitoring
- Main switch with thermal and magnetic release
- Stop switches for engineers' use within upper and lower end pits
- Sockets for inspection use installed in the upper and lower machine compartments
- Skirt deflector brushes
- Access cover contacts
- Handrail speed monitor
- Missing step monitor
- Diagnostic display

Other safety and monitoring functions, such as KONE Remote Monitoring and E-link, are available on request.

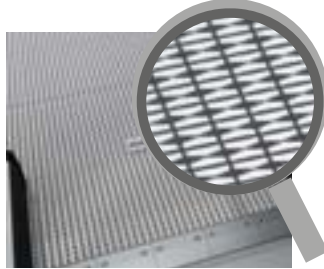


# Visual options

## Access cover



Stainless steel surface with punched diamond pattern (available in 304# and 443#)



Black painted stainless steel surface with punched diamond pattern (available in 304# and 443#). Floor numbering is available.

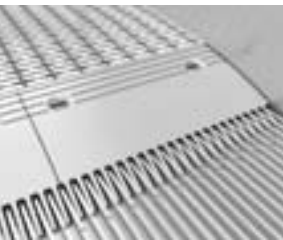


Natural ribbed aluminum

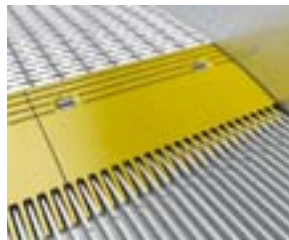


Ribbed aluminum with black grooves

## Comb



Aluminum comb segments



Aluminum comb segments with yellow coating

## Skirt

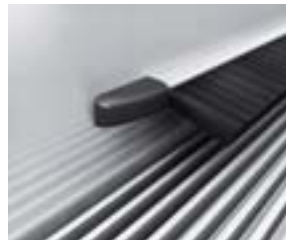


Brushed satin stainless steel skirt with clear anti-friction coating



Sheet steel skirt with black anti-friction coating

## Skirt brush holder



Clear anodized aluminum



Black anodized aluminum

## Frontplate



Satin polished stainless steel



Black plastic



Stainless steel frontplate for solid balustrades



Black plastic flat frontplate for solid balustrades

## Decking



Silver powder coating (RAL9007)



Brushed satin stainless steel



Center decking in same material as decking

## Balustrade joints



As standard, joints between glass balustrade panels are arranged perpendicular to the truss. Inclined panels are 1200 mm wide except for one make-up panel at the upper end which is used to compensate for the vertical rise.



The inclined panel widths can be equalized with joints arranged perpendicular to the floor or the truss.

## Balustrade



Clear glass balustrade panels



Brushed stainless steel solid inclined balustrade panels



Brushed stainless steel solid vertical balustrade panels



Balustrade extension of 400, 700 or 900 mm



Glass balustrade and newel end with wheel



Passenger fall protection barrier height up to 1300 mm. Recommended when a fall greater than 6 m is possible

## Handrail



Black



Black with white demarcation inserts



Red



Blue



Green



Brown



Beige



Grey



## Cladding



Grey primed sheet steel cladding (RAL7036) \*



Grey powder coated sheet steel cladding (RAL7036) \*\*\*



Brushed satin stainless steel cladding \*\*\*



Side cladding fitted by the customer \*\*

Note:

\* If needed this can be used for local on site decoration.

\*\* The truss is designed to allow a maximum weight of 15 kg/m<sup>2</sup>.

\*\*\* Cladding joints perpendicular to truss and floor available.

## Step color

## Step demarcation



Silver aluminum



Black aluminum with metal color ribs



Yellow painted (RAL1004)



Yellow plastic insert (RAL1023)



Yellow painted with center line (RAL1004)

## Horizontal steps



2 horizontal steps



3 horizontal steps



4 horizontal steps

**Note:** If the vertical rise exceeds 6 m or the step speed exceeds 0.5 m/s, there must be a minimum of 3 horizontal steps at each landing (EN 115-1 compliance).

## KONE MovingMedia™ step



MovingMedia distribution:

One sign on every step, every six steps or as specified by customers



## LED lighting

### Continuous LED handrail lighting



White



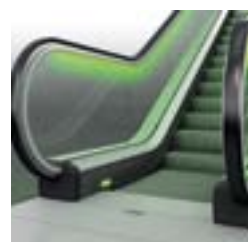
Yellow



Red



Blue



Green

### Continuous LED skirt lighting



White



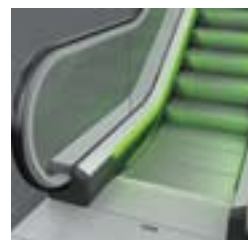
Yellow



Red



Blue



Green

### LED skirt spot lighting



LED skirt spotlighting



Side cladding\*



Soffit cladding\*



Side and soffit cladding\*

### LED soffit spot lighting



Soffit spot lighting

### LED options specification

#### LED handrail lighting

- Static continuous lighting
- Several color options available (see above)
- Add-on solution for existing units
- Only available with glass balustrade

#### LED skirt lighting

- Static continuous lighting
- Several color options available (see above)
- Only available with glass balustrade

#### LED skirt spot lighting

- Decorative lighting
- White light
- Only available with glass balustrade

#### LED cove lighting

- Static continuous cove lighting, direct and indirect solutions
- Can be installed to light up the soffit and/or the side cladding
- Several color options available (white, blue, green, yellow and red)
- Decorative lighting

#### LED soffit spot lighting

- Round spot lighting in various layouts (single row, double row)
- Decorative lighting
- White light

#### LED comb light

- Static or flashing option
- Several color options available (white, blue, green, yellow and red)

### LED comb light\*

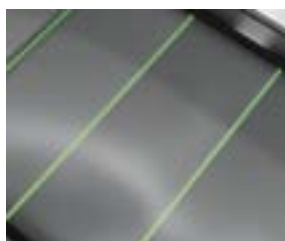


\* Same colour options as in continuous LED handrail and skirt lighting

## Additional lighting



LED traffic lights located in the decking



Under step demarcation lighting

## Additional options



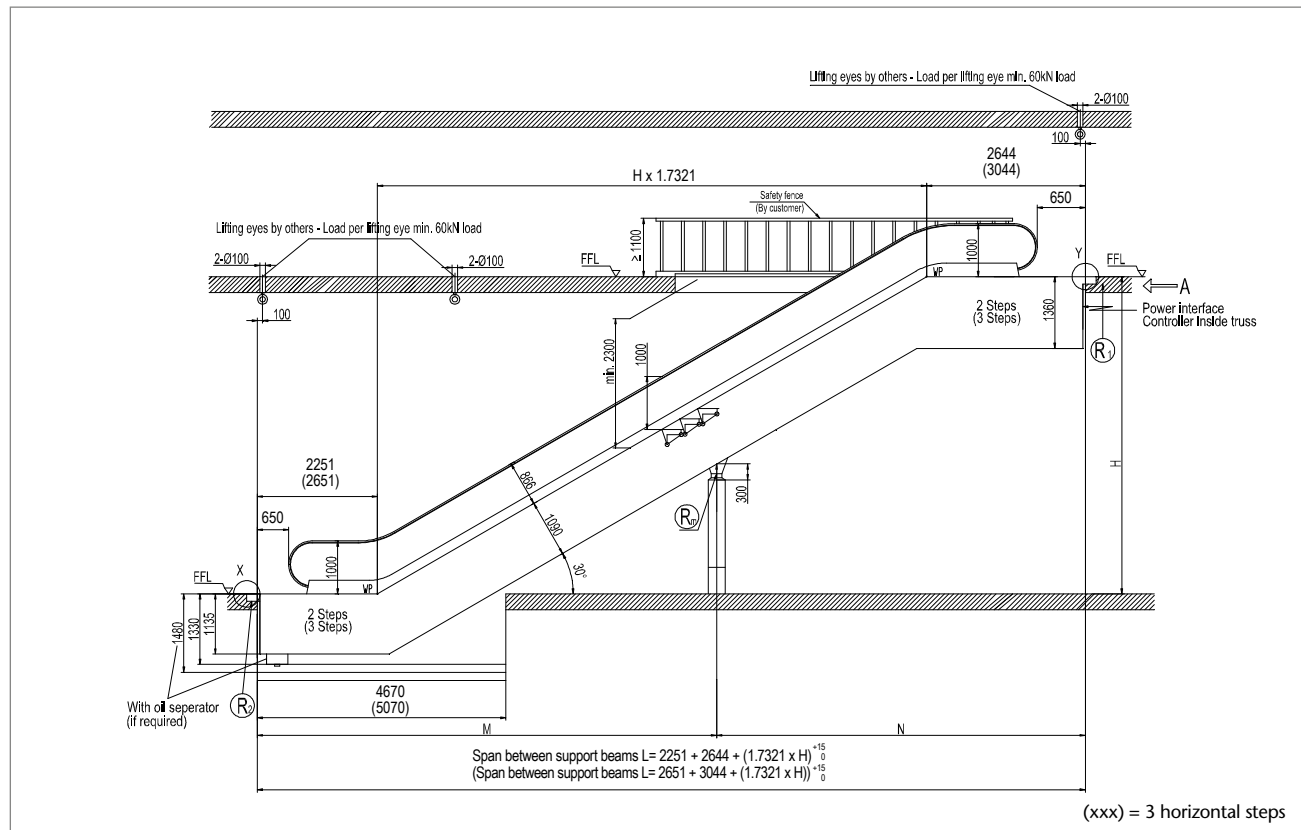
Diagnostic display

# KONE TransitMaster™ 140 planning dimensions

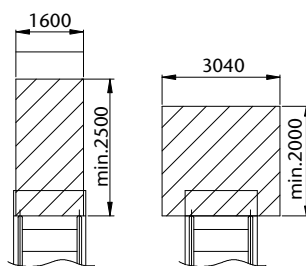
Architectural planning data

**30° inclination / 1.5 transition radii / 1000 mm step width / 2 or 3 horizontal steps at each landing**

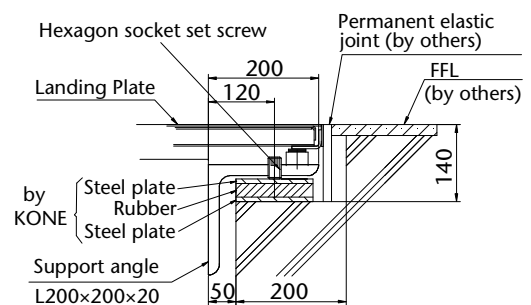
Code: EN 115-1:2008 + A1:2010



## Passenger Circulation Area Requirements

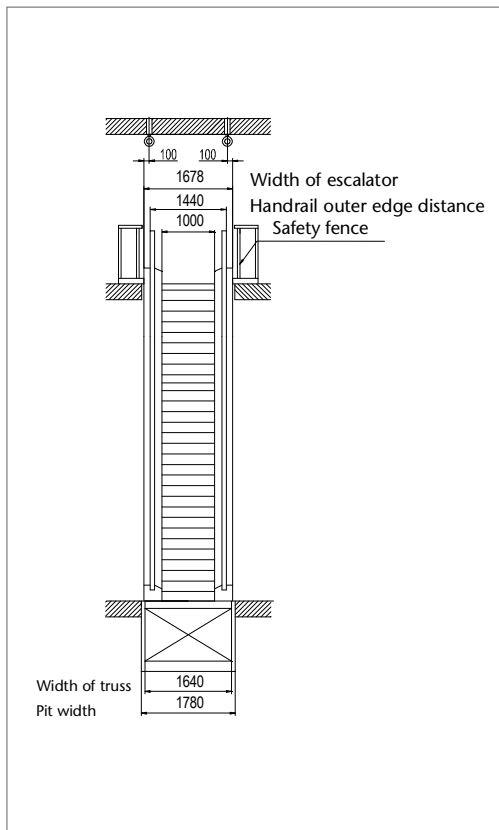


## Escalator Mounting Detail X / Y



## Reaction force (kN)

	R1	R2	RM1	RM2
Without intermediate support	$6.0L / 1000 + 28$	$6.0L / 1000 + 8$		
With one intermediate support	$6.0M / 1000 + 28$	$6.0N / 1000 + 8$	$6.8L / 1000$	
With two intermediate supports	$6.0L1 / 1000 + 28$	$6.0L3 / 1000 + 8$	$6.8 (L1+L2) / 1000$	$6.8 (L2 + L3) / 1000$



- All dimensions are in millimeters
- Maximum vertical rise:  
2 horizontal steps  $H = 6000$  mm  
3 horizontal steps  $H = 18000$  mm\*
- One intermediate support is required when the span (L) exceeds  $L = 16800$  mm. Second intermediate support required when span (L) exceeds  $L = 30000$  mm  
If intermediate support is required, please contact your KONE sales organization
- Truss extensions are required when either the rise requires the use of double drives or the use of inverter. For these dimensions please contact your local sales organization
- Additional cladding material maximum  $15 \text{ kN/m}^2$

Note:

If you would like to obtain the exact dimensions for your specific project, we recommend you use the Escalator Design Tools, which can be found on [www.kone.com](http://www.kone.com).

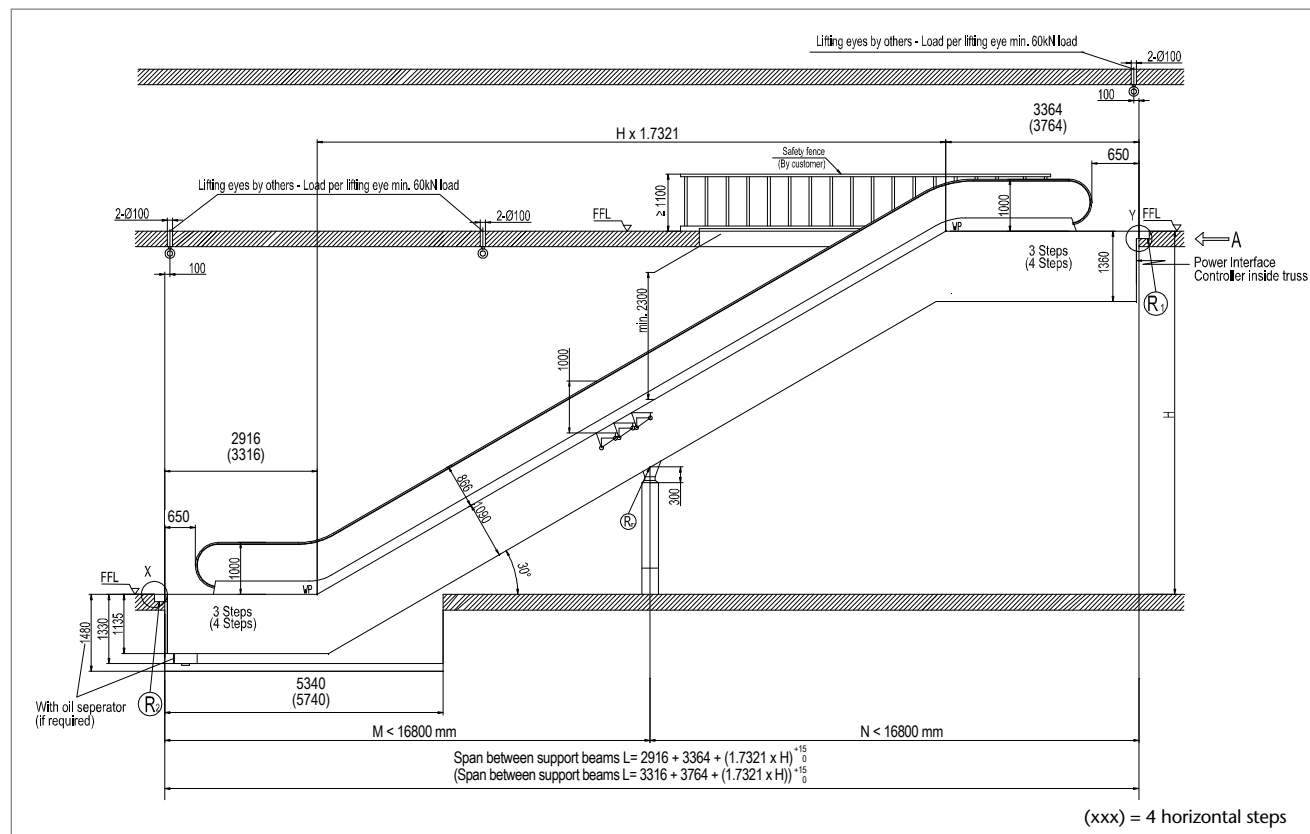


# KONE TransitMaster™ 140 planning dimensions

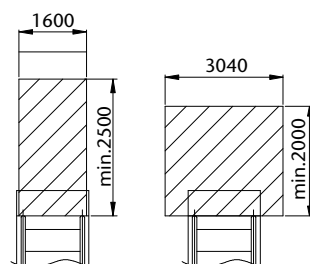
Architectural planning data

**30° inclination / 2.7 transition radii / 1000 mm step width / 3 or 4 horizontal steps at each landing**

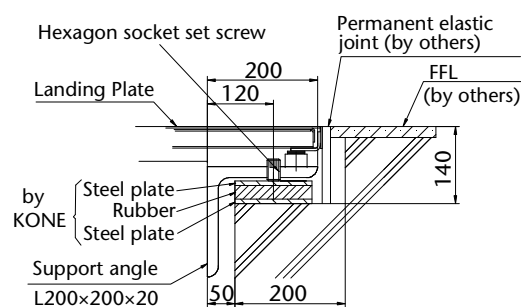
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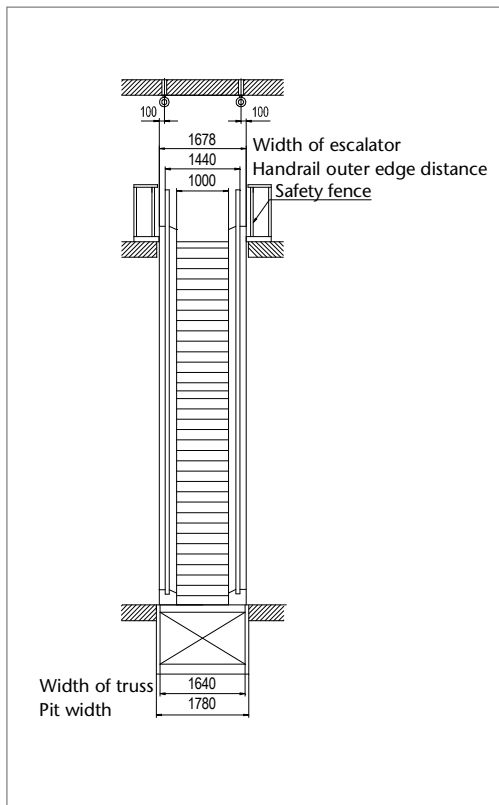


## Escalator Mounting Detail X / Y



## Reaction force (kN)

	R1	R2	RM1	RM2
Without intermediate support	$6.0L / 1000 + 28$	$6.0L / 1000 + 8$	—	—
With one intermediate support	$6.0M / 1000 + 28$	$6.0N / 1000 + 8$	$6.8L / 1000$	—
With two intermediate supports	$6.0L1 / 1000 + 28$	$6.0L3 / 1000 + 8$	$6.8 (L1+L2) / 1000$	$6.8 (L2 + L3) / 1000$



- All dimensions are in millimeters
  - Maximum vertical rise  $H = 18000 \text{ mm}^*$
  - One intermediate support is required when the span (L) exceeds  $L = 16800 \text{ mm}$ . Second intermediate support required when span (L) exceeds  $L = 30000 \text{ mm}$
- If intermediate support is required, please contact your KONE sales organization
- Truss extensions are required when either the rise requires the use of double drives or the use of inverter. For these dimensions please contact your local sales organization
  - Additional cladding material maximum  $15 \text{ kN/m}^2$

\* For rises above 18000 mm please contact your local KONE Sales organization.

**Note:**

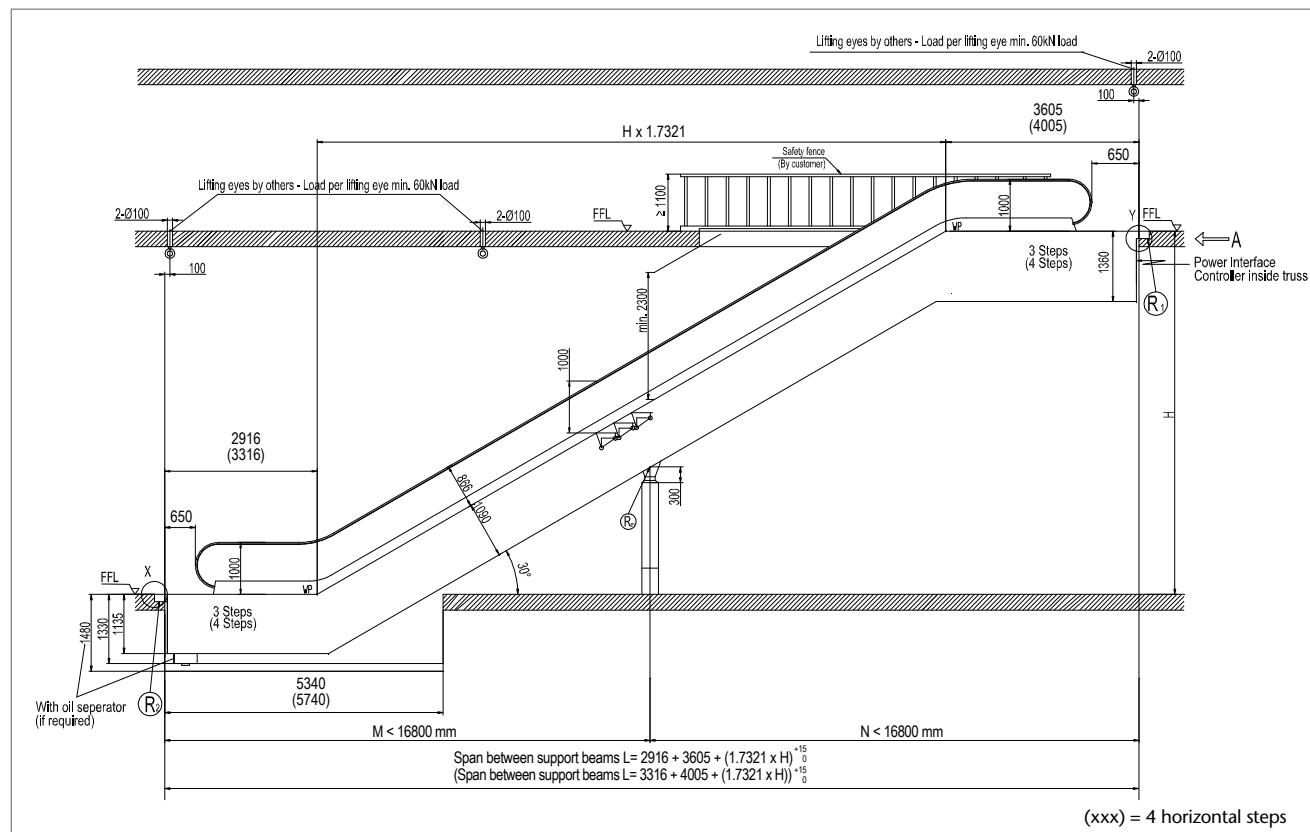
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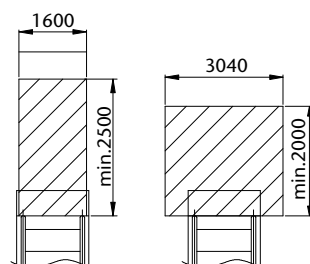
Architectural planning data

**30° inclination / 3.6 transition radii / 1000 mm step width / 3 or 4 horizontal steps at each landing**

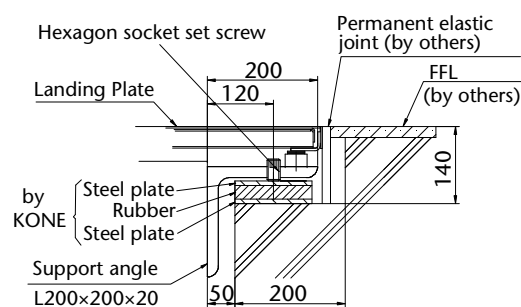
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## Passenger Circulation Area Requirements



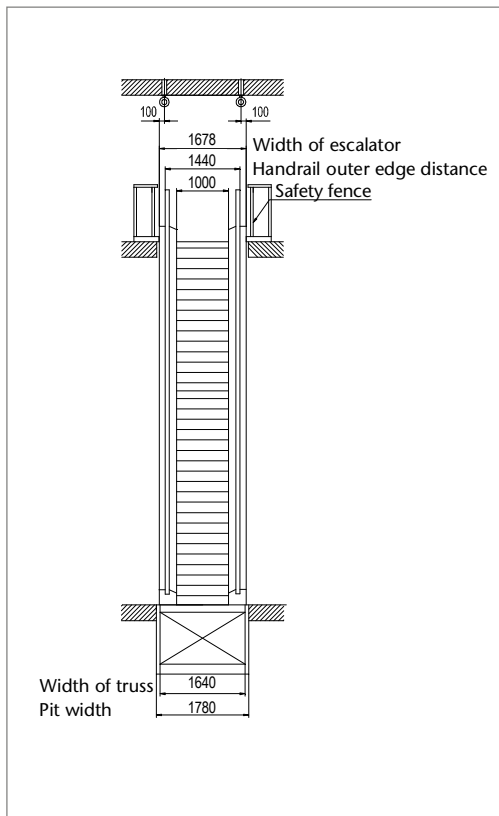
## Escalator Mounting Detail X / Y



## Reaction force (kN)

	R1	R2	RM1	RM2
Without intermediate support	$6.0L / 1000 + 28$	$6.0L / 1000 + 8$	—	—
With one intermediate support	$6.0M / 1000 + 28$	$6.0N / 1000 + 8$	$6.8L / 1000$	—
With two intermediate supports	$6.0L1 / 1000 + 28$	$6.0L3 / 1000 + 8$	$6.8 (L1+L2) / 1000$	$6.8 (L2 + L3) / 1000$





- All dimensions are in millimeters
  - Maximum vertical rise  $H = 18000 \text{ mm}^*$
  - One intermediate support is required when the span (L) exceeds  $L = 16800 \text{ mm}$ . Second intermediate support required when span (L) exceeds  $L = 30000 \text{ mm}$
- If intermediate support is required, please contact your KONE sales organization
- Truss extensions are required when either the rise requires the use of double drives or the use of inverter. For these dimensions please contact your local sales organization
  - Additional cladding material maximum  $15 \text{ kN/m}^2$

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Note:

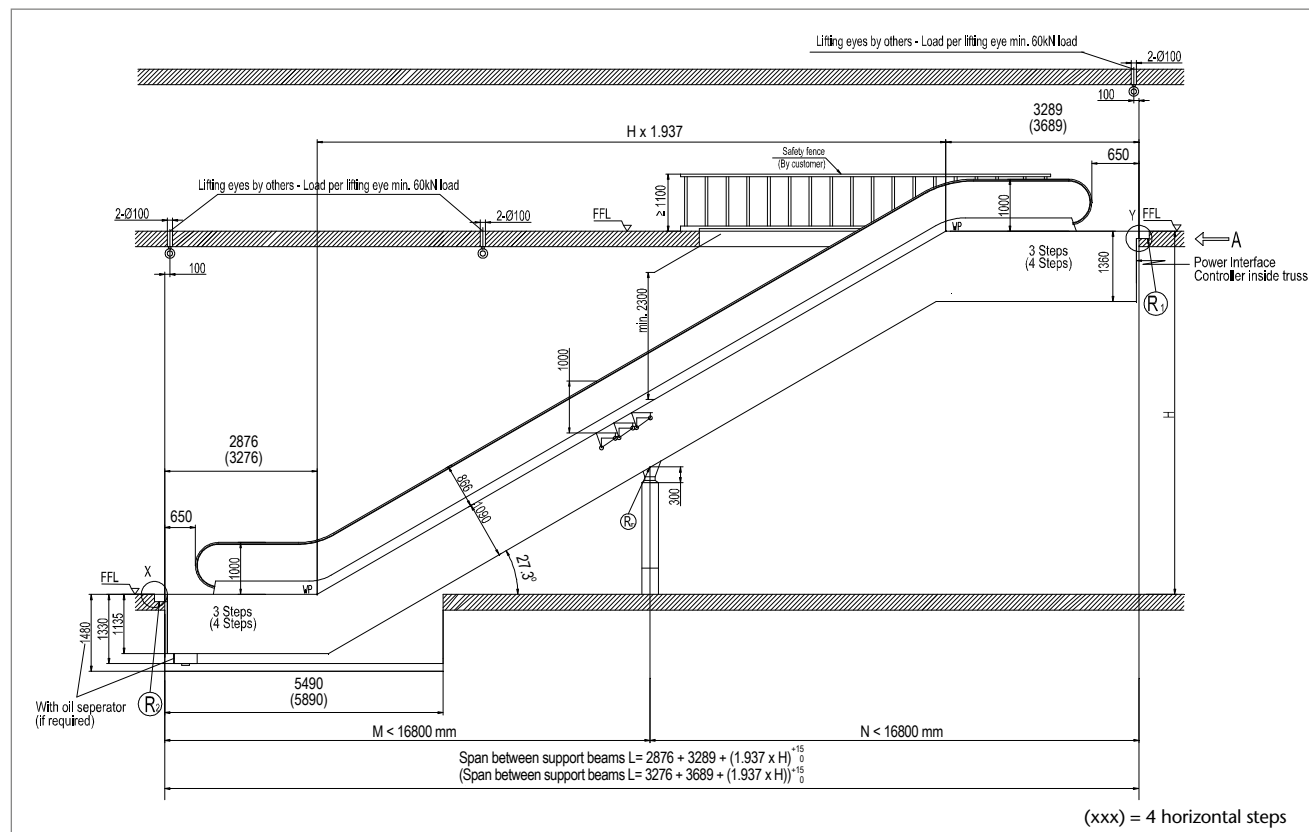
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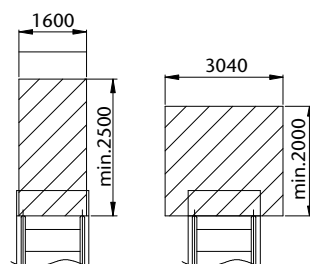
Architectural planning data

**27.3° inclination / 2.7 transition radii / 1000 mm step width / 3 or 4 horizontal steps at each landing**

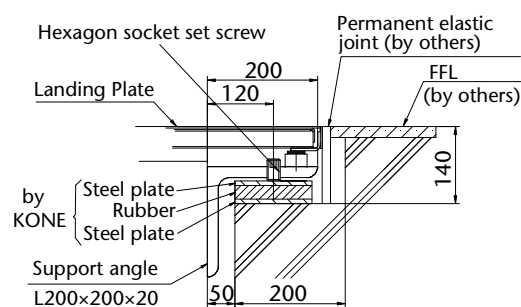
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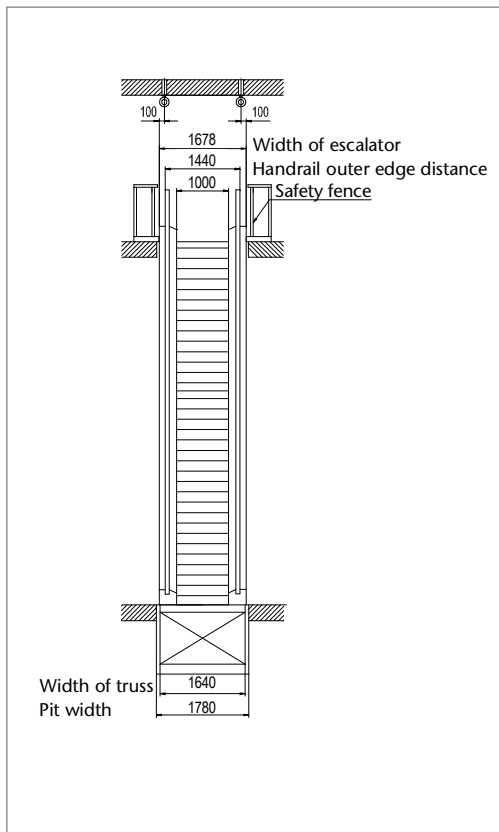


## Escalator Mounting Detail X / Y



## Reaction force (kN)

	R1	R2	RM1	RM2
Without intermediate support	$6.0L / 1000 + 28$	$6.0L / 1000 + 8$	—	—
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With two intermediate supports	$6.0L1 / 1000 + 28$	$6.0L3 / 1000 + 8$	$6.8 (L1+L2) / 1000$	$6.8 (L2 + L3) / 1000$



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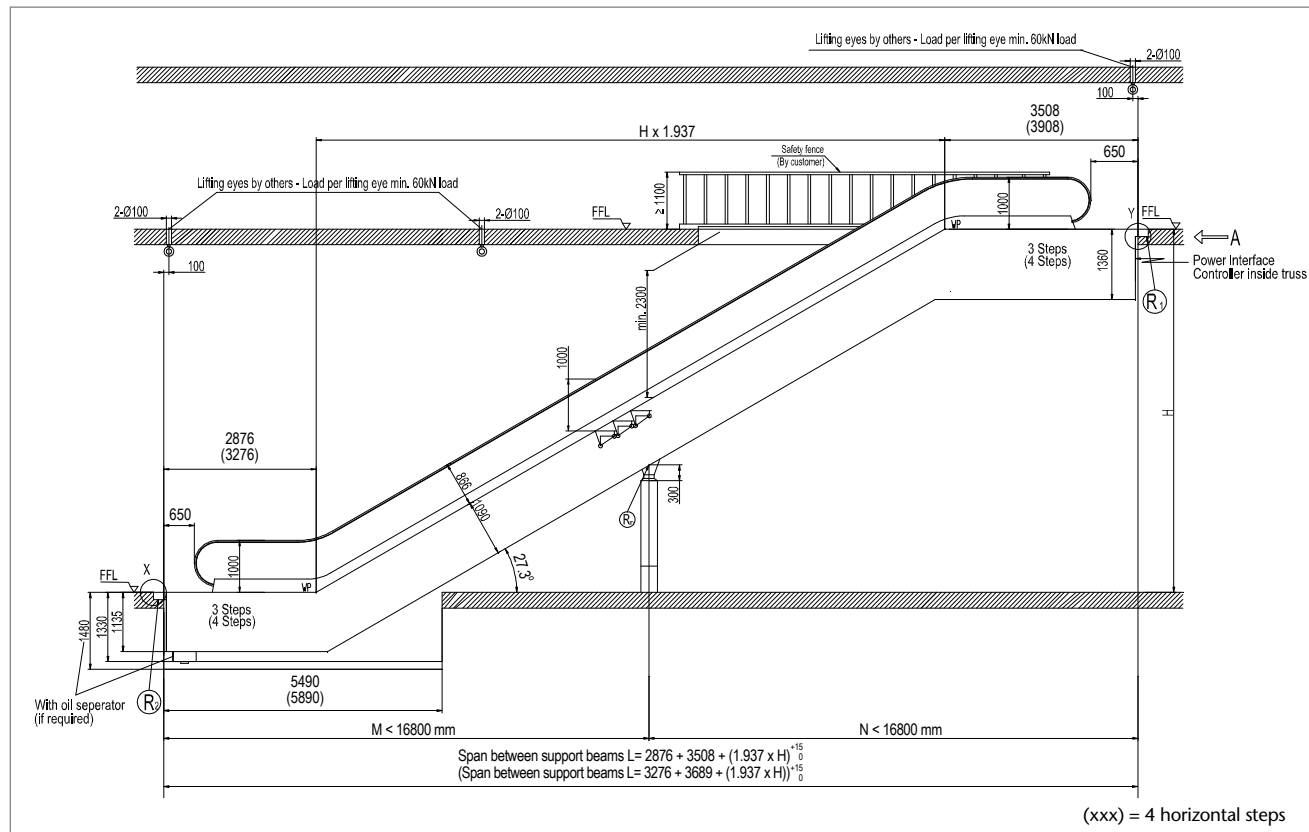


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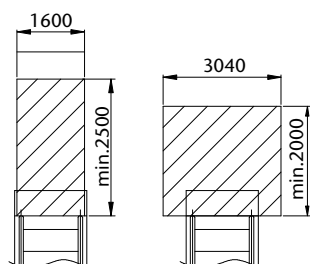
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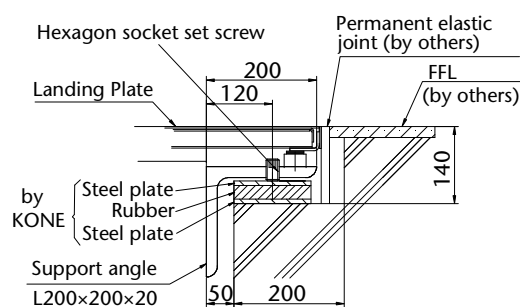
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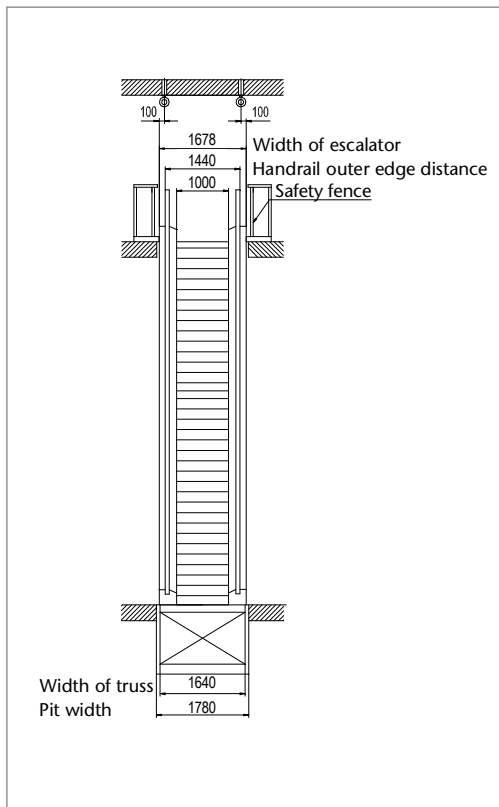


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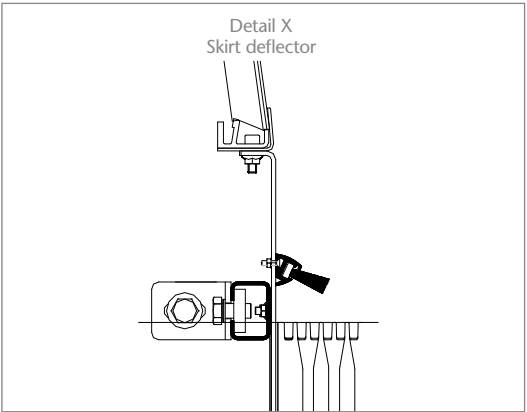
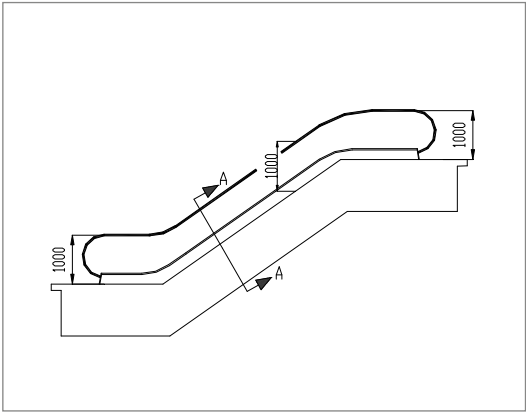
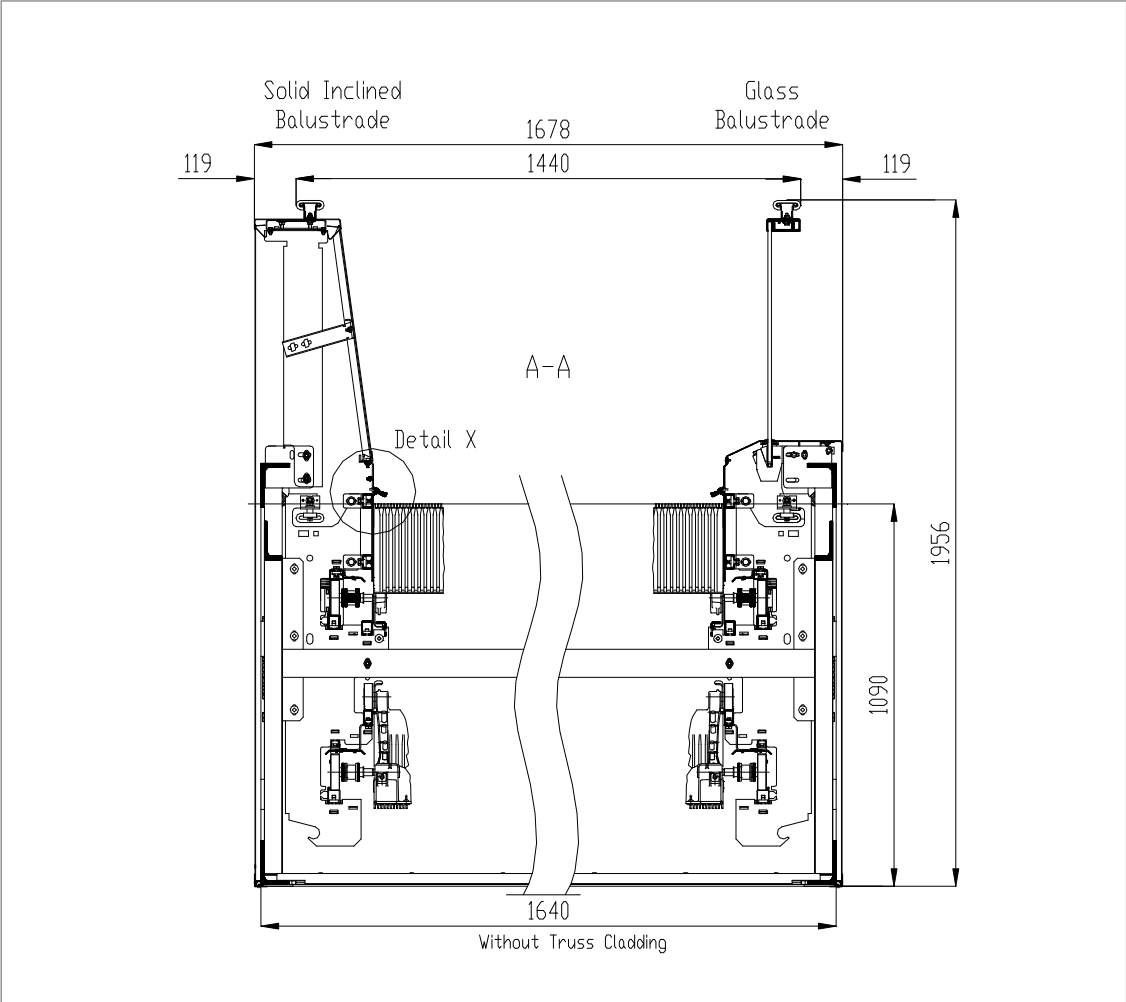
\* For rises above 18000 mm please contact your local KONE Sales organization.

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# Balustrade section

Solid inclined and glass balustrade









KONE provides innovative and eco-efficient solutions for elevators, escalators and automatic building doors. We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life-cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE MaxiSpace™, and KONE InnoTrack™. You can experience these innovations in architectural landmarks such as the Trump Tower in Chicago, the 30 St Mary Axe building in London, the Schiphol Airport in Amsterdam and the Beijing National Grand Theatre in China.

KONE employs approximately 34,000 dedicated experts to serve you globally and locally in over 50 countries.

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