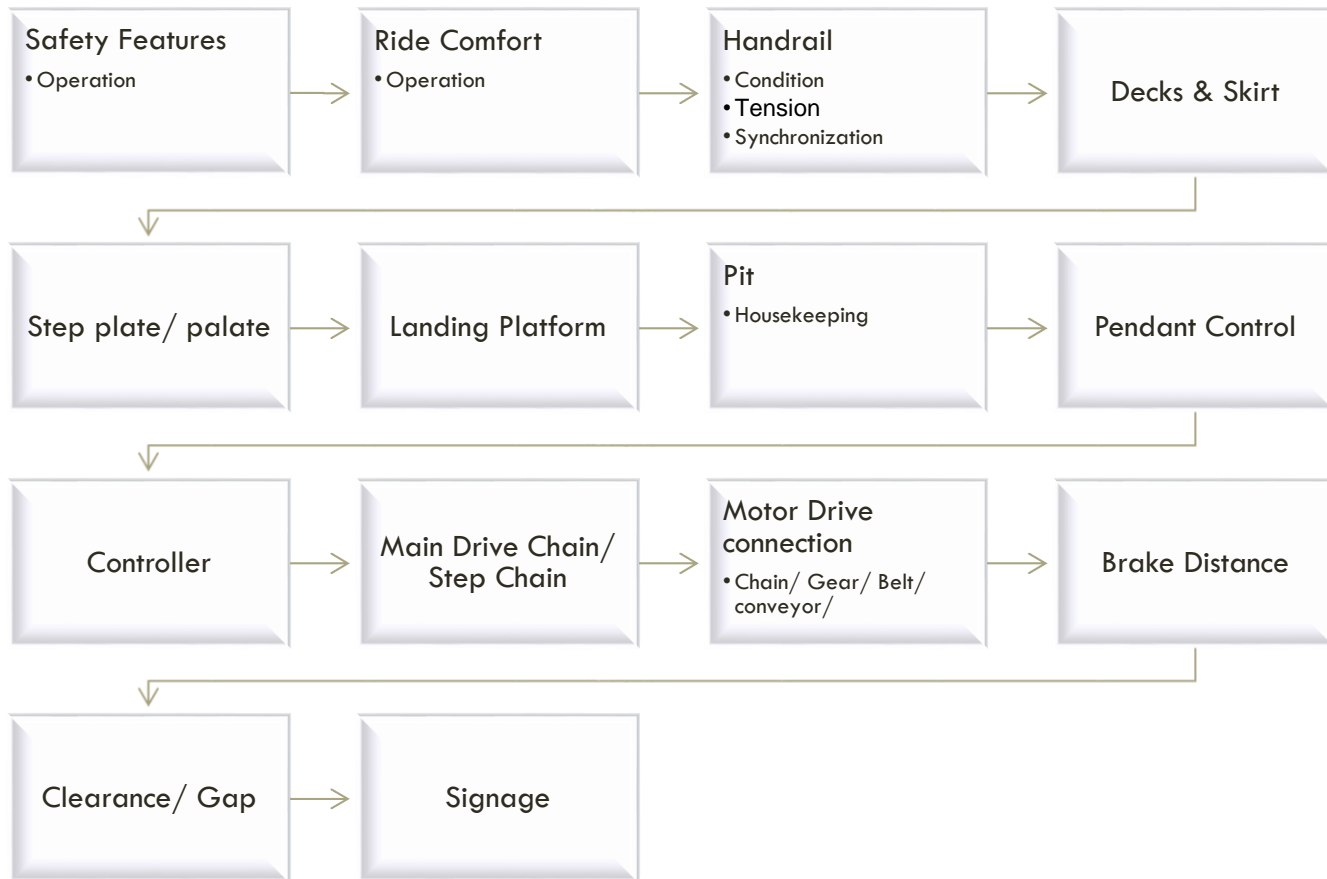


PENYELENGGARAN & PEMERIKSAAN ESCALATORS AND PASSENGER CONVEYORS

OSMAN BIN HJ ABDUL WAHID

GENERAL MAINTENANCE FOR ESCALATOR



PEMERIKSAAN BERKALA

No.	Item	Frequency				
		Every Month	Every 2 Month	Every 3 Month	Every 6 Month	Every Year
1.	ENTRANCE					
a.	Inspect travelling condition. Adjust, repair or replace as necessary.	X				
b.	Inspect all Combs. Clean, adjust or replace as necessary.	X				
c.	Inspect Emergency Stop Button. Replace as necessary.	X				
d.	Inspect all switches. Replace as necessary.	X				
e.	Inspect Handrail Guard. Adjust, repair or replace as necessary.	X				
f.	Inspect Handrails Light. Clean, repair or replace as necessary.	X				
g.	Inspect Direction Indicator. Replace as necessary.	X				
2.	MACHINE ROOM					
a.	Inspect Machine Room condition. Clean as necessary.	X				
b.	Inspect all beltings and tensioners. Clean, adjust or replace as necessary.	X				
c.	Inspect Drive Motors. Clean, repair as necessary.	X				
d.	Inspect Drive Machine. Clean, adjust as necessary.	X				
e.	Inspect Terminal Gear (Upper & Lower). Clean, lubricate, adjust or replace as necessary.	X				
f.	Inspect Driving Chain Switch. Replace as necessary.	X				
g.	Inspect Motor Drive Chain. Clean, lubricate, adjust as necessary.	X				
h.	Inspect Mg Brake. Clean, adjust or replace as necessary.	X				

JKJ 167:1/3 Rev.1

Serial no. of Esc. / Moving Walks : _____

ESCALATOR / MOVING WALKS

Date of Inspection : _____ Escalator No. _____
 Registration No. : PMA _____
 Design File No. : _____
 Owner's Name : _____
 Building Name : _____
 Address : _____
 Competen Firm : _____
 Maker : _____
 Serial No. : _____
 Year Manufactured : _____
 Power : _____ kw Model _____
 Maximum Capacity : _____ persons / hr.
 Location of Escalator : _____ floor to _____ floor
 Exemptions : _____

 Remarks : _____

EN 115-1:2008 Clause	Description	Inspector's check figure	Remarks
BUILDING INTERFACES			
A.2.1	Clear height above the steps/pallets	mm	Min. 2300mm
A.2.2	Outer edge of handrail to walls or obstacles	mm	Min. 80mm
5.5.2.2	Outer decking to wall or railing	mm	Max. 120mm
A.2.4	Vertical deflector	NP / No / Good	Max. 400mm
A.2.5	Unrestricted area	No / Good	Min. 2500mm
SAFETY SIGNS			
Annex G	Mandatory action and prohibition signs	No / Good	
BALUSTRADE			
5.5.2.2	Anti-climbing device	NP / No / Good	
5.5.2.2	Access restriction device	NP / No / Good	
5.5.2.2	Anti-slide device	NP / No / Good	
SKIRTING			
JKKP IS 127/8/1 - Klt.23(21)	Skirt deflector (Brushes / Rubber profiles)	NP / No / Good	
STEPS			
JKKP IS 127/8/1 - Klt.23(21)	Demarcation yellow lines	NP / No / Good	
5.3.5	Clearance between two consecutive steps or pallets	mm	Max. 6.0mm
COMBS			
5.7.3.3.1	Mesh depth into grooves of the tread	mm	Min. 4.0mm
5.7.3.3.2	Vertical clearance between comb to step	mm	Max. 4.0mm

Tandatangan Pemeriksa:

Tandatangan Orang Kompeten:

1. ESCALATOR SAFETY SWITCHES

1. Key-Operated Starting switch
2. Emergency stop switch
3. Broken drive chain switch
4. Broken Step chain switch
5. Comb plate switch
6. Handrail guard switch
7. Skirt Switch
8. Speed monitoring
9. Step switch
10. Overspeed-govenor

Safety Features

Ride Comfort
Handrail
Decks & Skirt
Step plate/ palate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

<https://www.youtube.com/watch?v=QUFsZsuNAOI>

Escalator Safety Device

RIDE COMFORT

Smooth

Sound

Synchronization

Safety Features

Ride Comfort

Handrail

Decks & Skirt

Step plate/ pallate

Landing Platform

Comb plate

Pit

Pendant Control

Controller

Step Chain

Motor Drive

connection

Brake Distance

Clearance/ Gap

Signage

HANDRAILS

Check for free running and condition.

Check tension.

Check synchronization between step/pallet band and the handrail.



Safety Features

Ride Comfort

Handrail

Decks & Skirt

Step plate/ pallet

Comb plate

Landing Platform

Pit

Pendant Control

Controller

Step Chain

Motor Drive

connection

Brake Distance

Clearance/ Gap

Signage



DECKS & SKIRT

Conditions

Clearance

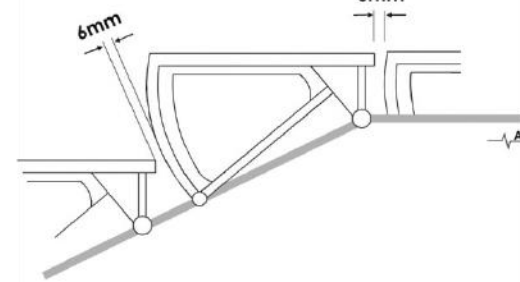
Skirt Deflector (Brush/ Rubber)

**Checking the nominal gap clearance
between step and skirt:**

- ❖ **Max. 4 mm on one side and**
- ❖ **7 mm in total on both sides**

Skirting

Step

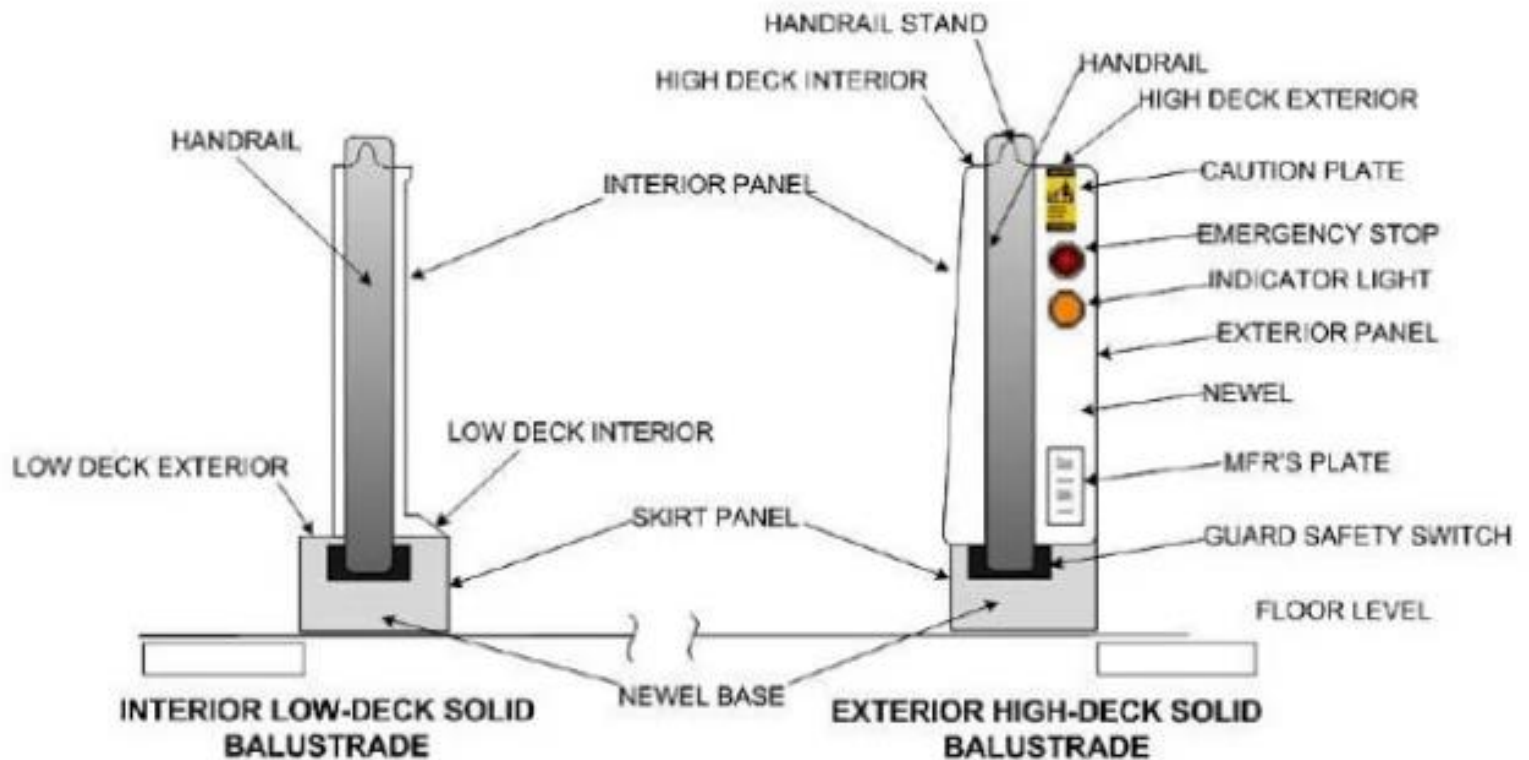


Safety Features
Ride Comfort
Handrail
Decks & Skirt
plate/ palate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

BALUSTRADE

Check condition of panels.

Check fixings of interior claddings



STEP PLATE/ PALLATE

Condition

Check step/pallet and step/pallet wheels for integrity.

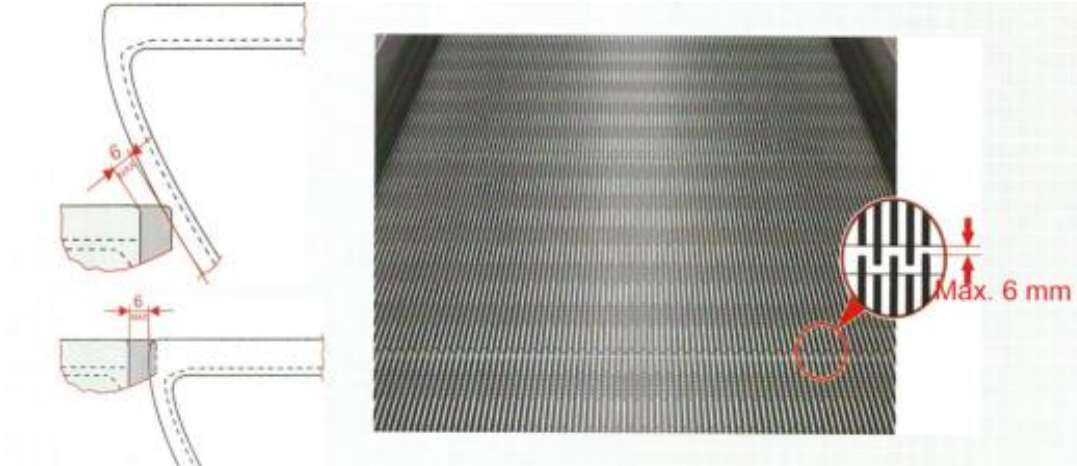
Yellow demarcation

Clearance

Check track for condition and wear.

Check fixings - roller

Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallet
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage



Safety design to prevent trapping
between two consecutive steps
and between steps and skirting

shall not exceed 4mm and 6mm respectively,



in order to prevent foreign objects being trapped at these locations.

COMB/ COMB PLATE

Check condition.

Check meshing with steps, pallets or belt.

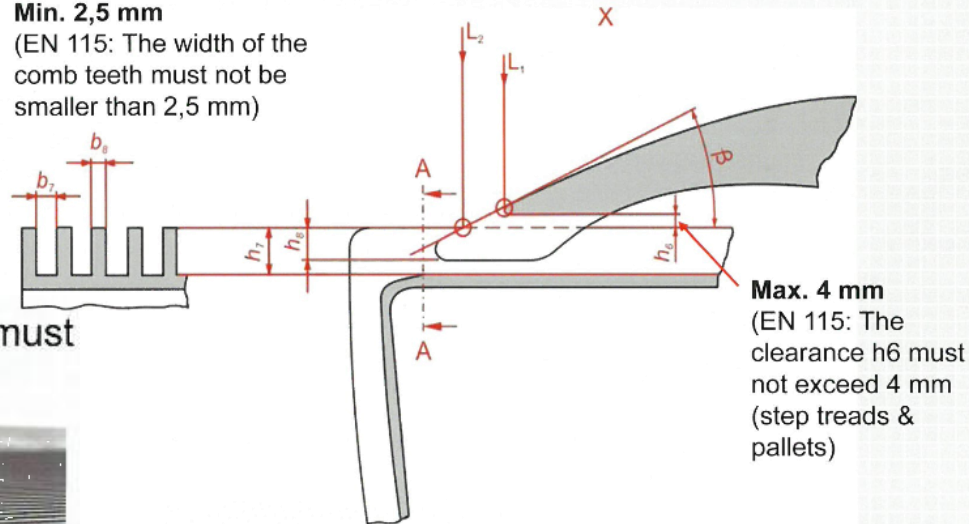
Condition

COMB SEGMENT-TO-STEP CLEARANCE (1/2) - General

Clearance

Min. 2,5 mm

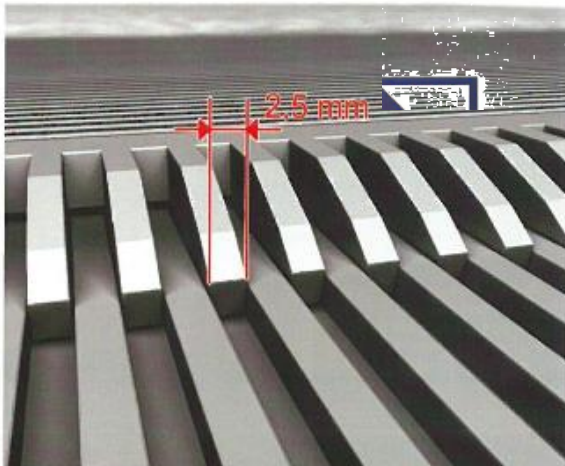
(EN 115: The width of the comb teeth must not be smaller than 2,5 mm)



Max. 4 mm

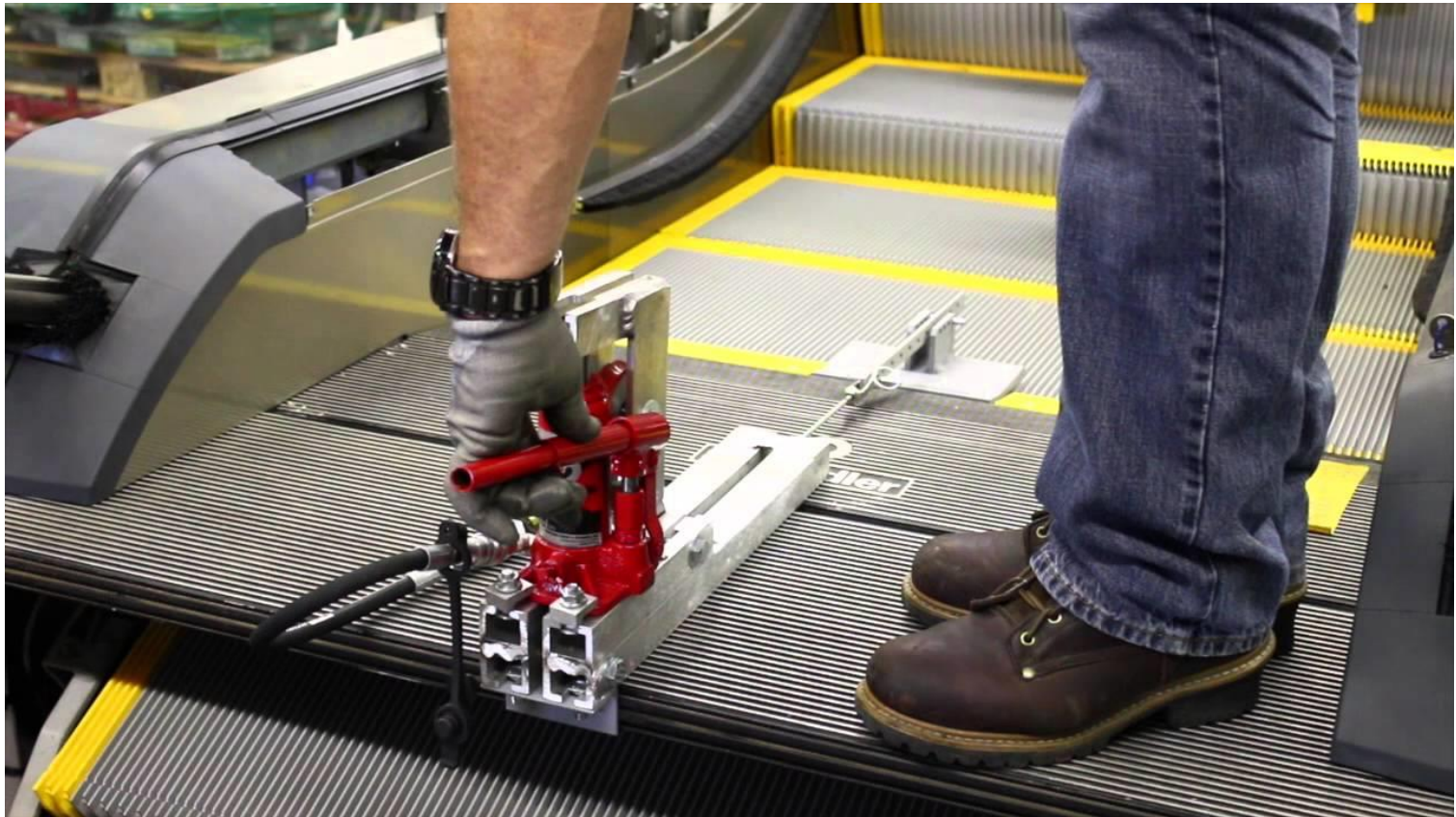
(EN 115: The clearance h_6 must not exceed 4 mm (step treads & pallets))

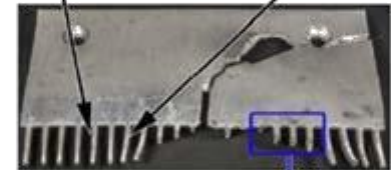
The width of the comb teeth must not be smaller than 2.5 mm



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallet
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

COMB PLATE TESTING DEVICE





LANDING PLATFORM/ DECKING

Condition

Grove

Nuts/ Screws

Carpets/

Clearance



Safety Features

Ride Comfort

Handrail

Decks & Skirt

Step plate/ pallette

Comb plate

Landing Platform

Pit

Pendant Control

Controller

Step Chain

Motor Drive

connection

Brake Distance

Clearance/ Gap

Signage

PIT

Housekeeping
Conditions



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

CONTROLLER & PENDANT CONTROL

Check cabinet is clean, dry and free from dust

Wiring condition



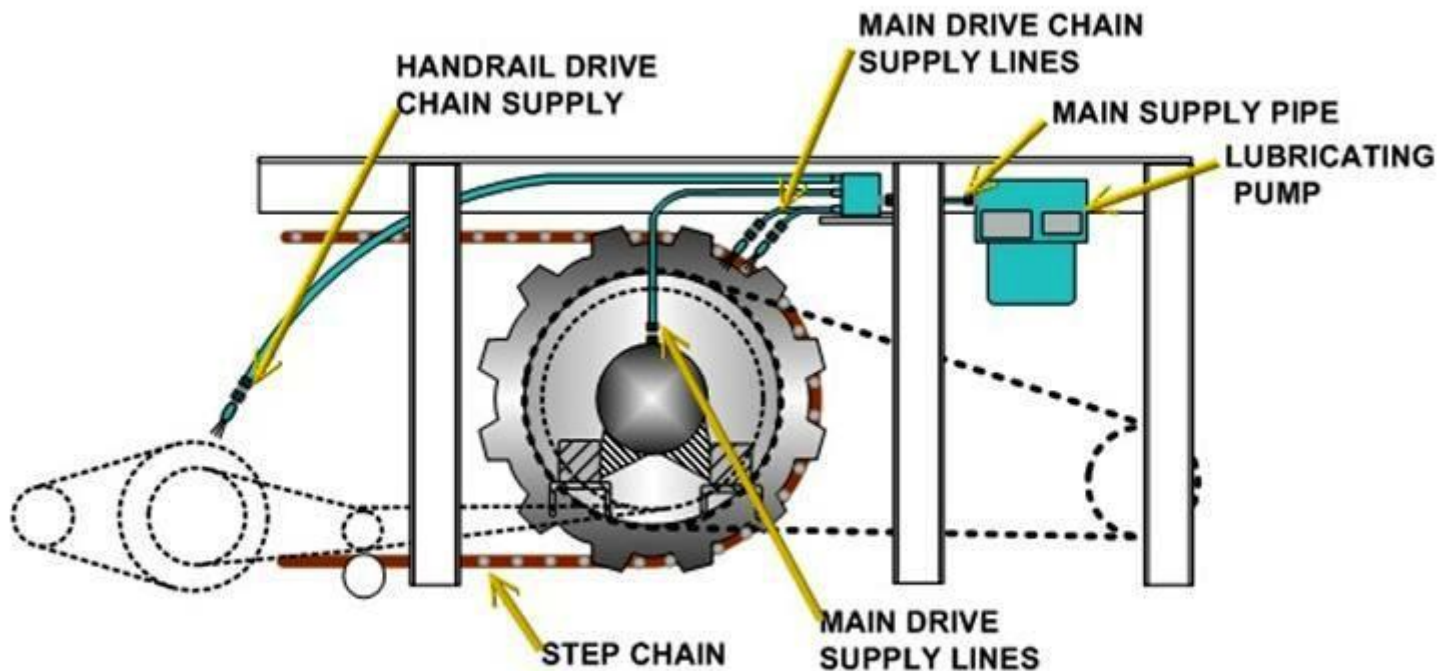
Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallate
Comb plate
Landing Platform
Pit

Pendant Control

Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

MAIN DRIVE CHAIN/STEP CHAIN

Check for tension and wear.
Check lubrication.
Wheel/ sprocket

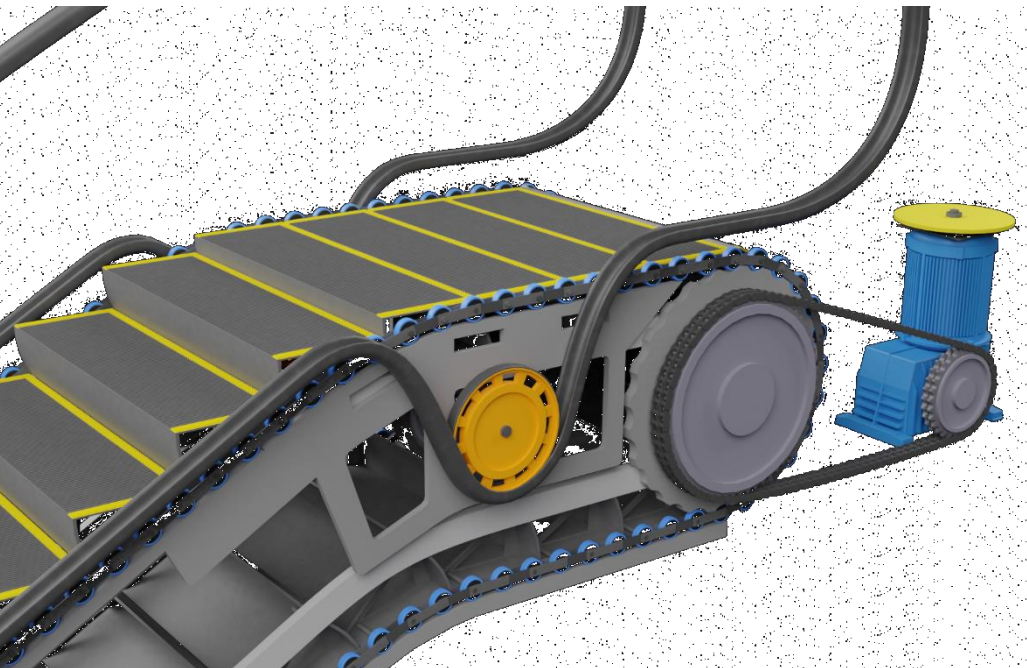


Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage



MOTOR DRIVE CONNECTION

Check gear and associated parts
Check lubrication
Check bearings for wear
Check belt - for condition and tension.
Abnormal noise



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
**Motor Drive
connection**
Brake
Clearance/ Gap
Signage

BRAKE

Check braking system. Main/ auxiliary
Check parts for wear.
Brake distance

Rated speed m/s	Stopping distance between (meter)	
	Minimum	Maximum
0.50	0.20	1.00
0.65	0.30	1.30
0.75	0.35	1.50
0.90	0.55	1.70

Step 1: Mark the step and skirt



Step 2: Test stopping

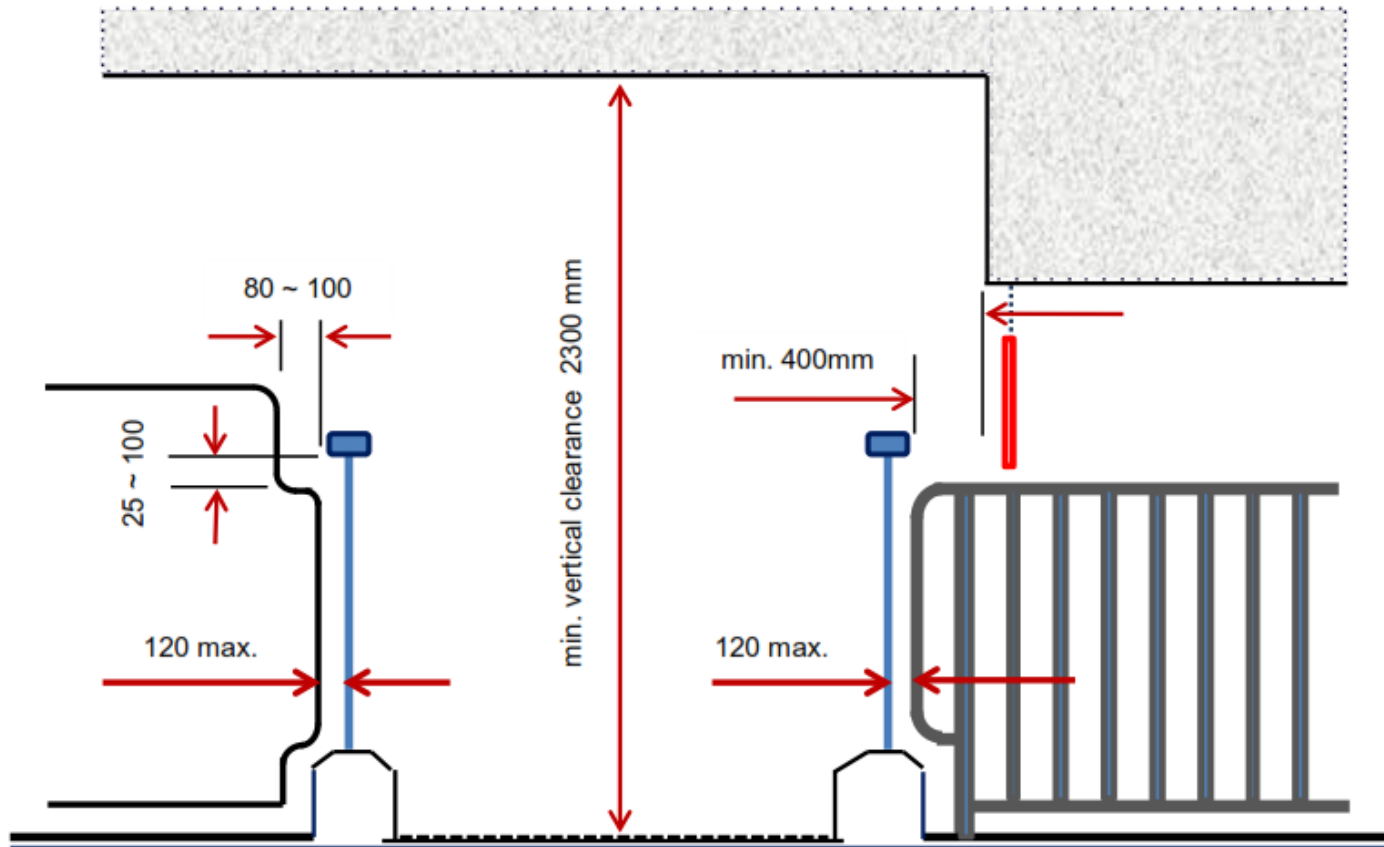


Step 3: Measure the distance



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallate
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake
Clearance/ Gap
Signage

CLEARANCE/ GAP



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Up plate/ pallet
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage

SIGNAGE/ PICTOGRAM

Min. 80mm



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallette
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap

Signage



PERINGATAN

- PEGANG SELUSUR TANGAN
- BERDIRI DI ANTARA GARISAN KUNING
- KANAK-KANAK MESTI SENTIASA DIAWASI
- BERHATI-HATI DENGAN PAKAIAN LABUH



Tidak dibenarkan - Sila guna lif yang disediakan



SIGMA

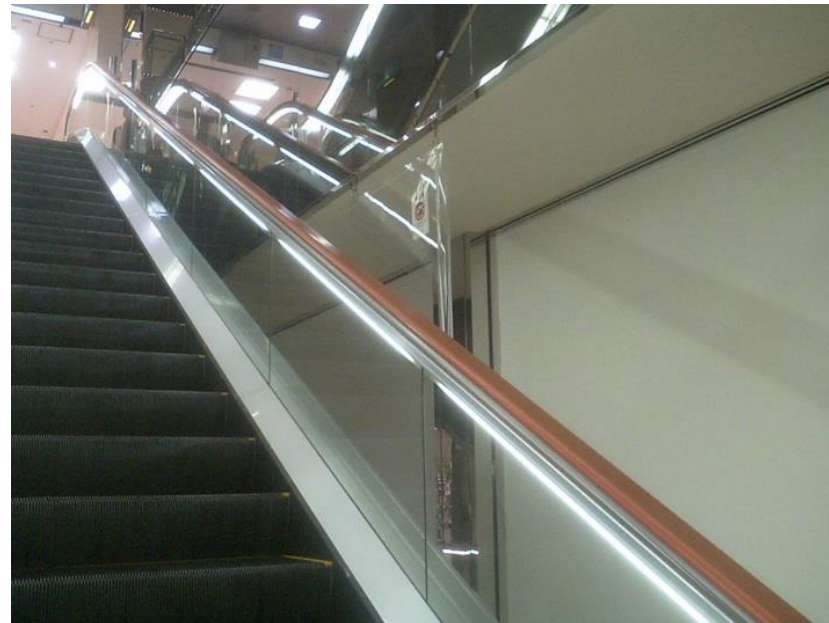
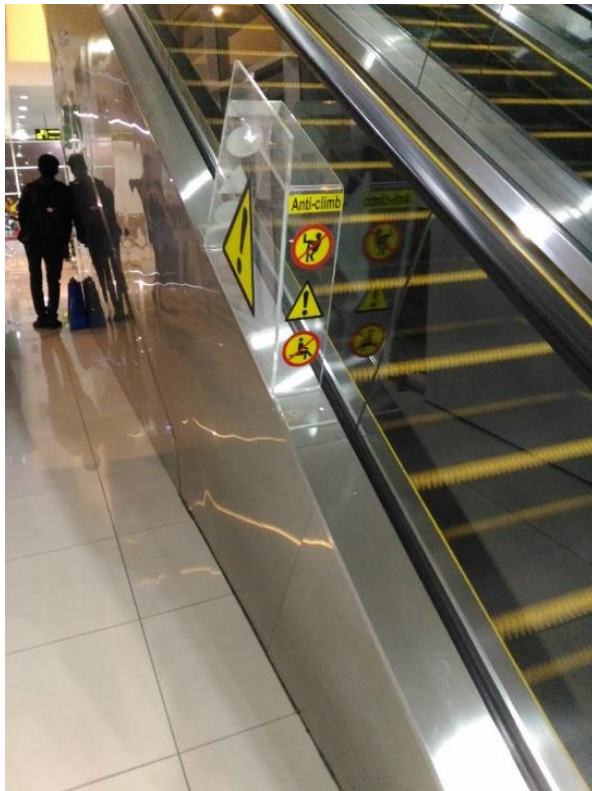
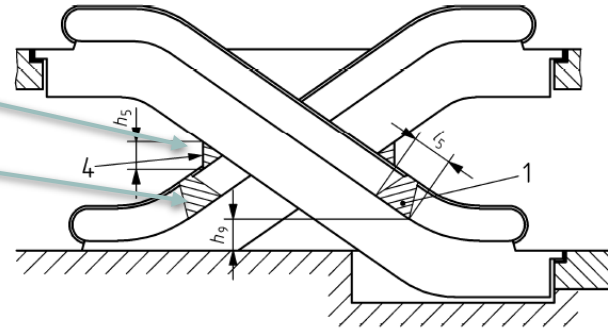
ESC. NO. 8
PMA. 94404

SAFETY GUARD

Triangular guard

Anti Sliding

Clearance guarding



Safety Features
Ride Comfort
Handrail
Decks & Skirt
Step plate/ pallette
Comb plate
Landing Platform
Pit
Pendant Control
Controller
Step Chain
Motor Drive
connection
Brake Distance
Clearance/ Gap
Signage
Safety Guard



OTHERS

Lighting

Display/ Indicator

Radar/Sensor

