

# CIBSE Guide D: 2025

## Chapter 10 – Escalators and moving walks

Stephen Normington



# What does Chapter 10 do?

## *Escalators and moving walks*

- Introduction
- Definitions, commonly available equipment and duty
- Principal components
- Installation planning
- Drive systems, energy usage and safety devices
- Modernising escalators and moving walks
- Commissioning, testing and maintenance
- Actions after an incident involving an escalator or moving walk
- Escalator or moving walks and LOLER

# What has changed since 2020?

## *Regulations and Directives*

- Machinery Regulation (Regulation (EU) 2023/1230) was published on 29th June 2023, but will not enter force until 20<sup>th</sup> January 2027
- Machinery Directive 2006/42/EC, enacted into GB law by the Supply of Machinery (Safety) Regulations, will be withdrawn on 19<sup>th</sup> January 2027; there is no transition period
- The Machinery Regulation is being reviewed by CEN TC10 WG2 to ascertain how this will affect future revisions of EN 115-1/ISO 8103-1

# What has changed since 2020?

## *Codes and Standards*

- EN 115-1:2017 is being adopted as the basis for ISO 8103-1
- The first version of ISO 8103-1 will not be a harmonised standard; EN 115-1 will continue as a harmonised standard
- This ISO standard will be revised to include fall protection and some other minor amendments; estimated publication date is 2026
- EN ISO 8103-1 will then become a harmonised standard; EN 115-1 will be withdrawn
- ISO 8103-1 will be developed to incorporate mutually agreed ASME and JIS safety requirements to become a truly global escalator standard

# What has changed since 2020?

## *Codes and Standards*

- EN 115-2:2010 “Safety of escalators and moving walks — Part 2: Rules for the improvement of safety of existing escalators and moving walks” was updated in 2021 to bring it in line with EN 115-1:2017
- EN 115-5:20XX “Safety of escalators and moving walks — Part 5: Replacement of existing escalators/moving walks in existing buildings” will be published late 2023/early 2024
- This provides protective measures for five common scenarios when replacing existing units to ensure they conform with the essential requirements of the Machinery Directive

<b>5.2 Free Height.....</b>	.....
<b>5.3 Reduced standing area in machinery spaces, driving station and return station.....</b>	.....
<b>5.4 Escalators with 35° inclination and more than 6 m rise.....</b>	.....
<b>5.5 Reduced unrestricted area for escalators/moving walks without shopping trolleys.</b>	.....
<b>5.6 Reduced horizontal step run at lower landing.....</b>	.....

# Fall Protection



- The starting point is the Norwegian TEK10 building regulations which have required additional fall protection since 2010
- Although raising the balustrade height to 1100 mm prevents accidental falls over the side, it does not prevent falls due to misuse e.g. handrail surfing or sitting on the handrail
- CEN TC10 WG2 Ad Hoc Mechanics proposals have been forwarded to SAC in China for further development
- Fall protection is likely to be required where the fall hazard is  $>2$  m measured vertically from the handrail to the ground
- Minimum height likely to be 150-200 mm above handrail height, but in all cases min. 1100 mm above step nose on incline section

# Areas to be reviewed:

- Reference documents and standards
- 10.2.2 – Guidance on maximum moving walk pallet width in relation to angle of inclination
- 10.3 & 10.4.2 – Width of skirting deflector should be taken into consideration to ensure minimum 200 mm evacuation space is maintained between trolley and skirting panel
- 10.3 – Guidance on additional stop switches 2-3 m before comb intersection line when required by EN 115-1
- 10.4.1 – Guidance on fall protection and handrail height; a 1000 mm handrail height is a better compromise for providing a firm handhold if fall protection is fitted.

# Questions?

