

Walkway platform - Specification guide

1. Materials

- Only materials that are not subject to corrosion can be used.
- Extruded profiles and plates of high resistance aluminum alloy; anodized 10 micron; natural mat finishing; and fasteners of stainless steel, A2-70 DaN/mm² can be used.
- No protective treatment, painting, or maintenance is required unless walkway is exposed to aggressive environments.
- Welding is not allowed.
- Steel is excluded except for in fasteners and in cases of extreme span. In cases of extreme span, an adequate isolation between steel and aluminum are applied to prevent electrolytic coupling.
- Fixed walkways can be factory painted in any RAL color by polyester powder coating (option).

2. Composition

- The walkway is partly assembled in the factory, using bolts and rivets. Final assembly of the walkway is executed on the construction site. The walkway is fixed to the wall using bolts and aluminum alloy profiles.

2.1 Composition of Landings

- The frames for landings are composed of hollow profiles of 208mm x 30mm x 2mm (8.2" x 1.2" x 0.1") with double chambers.
- Joists of at least 60mm x 20mm x 2mm (2.4" x 0.8" x 0.1") are spaced at a maximum of 30cm and are fixed in the frame. The joists support the deck.
- The deck is made of aluminum alloy tread plates, perforated to drain rain water.
- The allowed tread plates include five-bar pattern plates with a thickness of 2.5mm to 4mm (0.1" to 0.2") and plates with perforations at 9mm and 14mm (0.4" and 0.6") with a standing edge and thickness of 3mm (0.1").

2.2 Composition of guardrails

- The guardrails are linked.
- Guardrails are composed of a handrail of at least 50mm (2") wide with rounded edges with a radius at least 1.5mm.
- Guardrails are mounted onto hollow pickets of 60mm x 25mm x 3mm (2.4" x 1" x 0.1") with rounded edges.
- The pickets are fixed into the stringers and landing frames at least every 74cm (2' 5").
- In between these pickets is constructed one of three options:
 - A guardrail with three round tubes of 18mm x 2mm (0.7" x 0.1"); set parallel to handrail; running through pickets;

- A guardrail with square tubes of 25mm x 25mm x 1.5mm (1" x 1" x 0.06") with rounded edges; parallel to pickets; spaced at 11cm (4"); fixed into handrail at the top; fixed in square tube of 30mm x 30mm x 2mm (1.2" x 1.2" x 0.1") at the bottom; pickets running through tube;
- A custom-made guardrail according to agreed specifications.
- The height of the guardrail is at least 1m (3' 0") on the landings.
- The handrails are at least 40mm (1.6") cleared from all obstacles. On request, the manufacturer can provide a children's handrail at intermediate height.

2.3 Composition of the supporting structure

- The supporting structure of a walkway must consist of columns or of wall bracings. The columns or bracings are made of U-shaped or L-shaped channels of appropriate sizes, with rounded edges to provide the required mechanical resistance. The columns are constructed on an adequate foundation. The wall bracings are fixed to the wall by anchor bolts of adequate sizes and numbers.

3. Mechanical properties

- The walkway can support a uniformly distributed load of 500 Kg/m² (1100lb) on landing as well as a point load of 200Kg (440lb) applied anywhere on landing deck (standards NBN 1-50 and NFP 06-001).
- The guardrails can withstand a horizontally applied uniform load of 100 Kg/m (220 lb) without permanent deformation (standards NBN 03-103, NFP 06-001 and NFP 01-012).
- The manufacturer must share, on request, calculations of stability, deformations, and stresses.