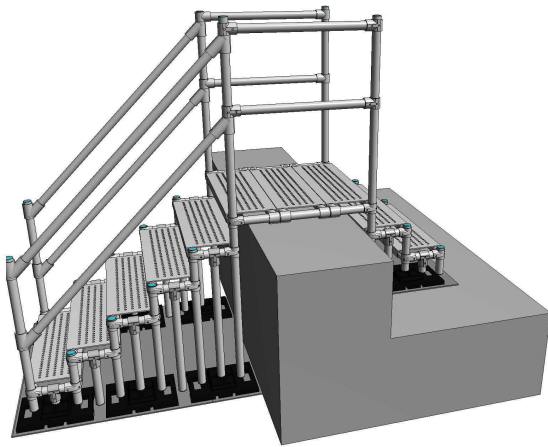


Fixed Ladders and Roof Access

ROOF ACCESS STAIRS AND WALKWAY SYSTEMS



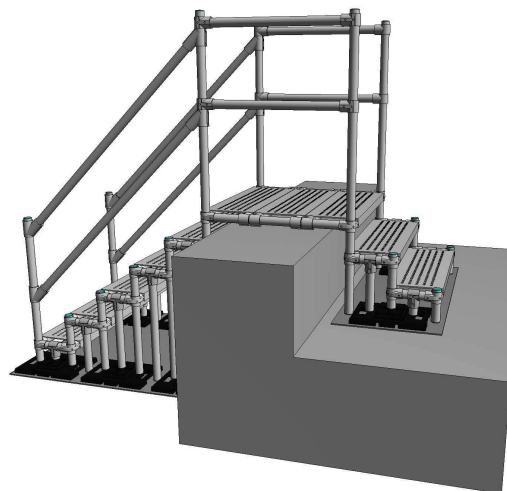
The Millennium freestanding roof access stairs and walkways systems are essential elements to secure the circulation and movement of workers on a roof.

Our 100% freestanding concepts allow a quick installation without penetrating the roof surface.

All our stairs and walkways systems are made of aluminum for strength and long term durability.

SECURE ACCESS

- Between two roof levels;
- To cross over an expansion joint, a ventilation duct, electrical cables or gas pipes;
- To access a rooftop water tower, chimney and any other rooftop equipment that requires regular maintenance at height.



ADVANTAGES

- Completely modular system that adapts to all roof levels;
- Durable and robust, requires no maintenance;
- Natural aluminium or polyester thermoset powder coating according to our colour range;
- Light and safe structure for all roofing systems;
- Solid non-slip steps;
- No roof waterproofing work is required during installation;
- Easy installation on all types of flat and slightly sloping roofs.

Fixed Ladders and Roof Access

ASSEMBLY PARTS

Cast aluminium 535 clamps fittings according to the properties in the table below with threaded holes and stainless steel set screw.

- **Elbows:** 45° or 90° clamps fittings
- **Tees:** linear clamps fittings, "T" or "Y" clamps fittings,
- **Flanges:** Wall brackets parts receiving the crossbar tube.

| Physical Properties | Metric | English |
|---------------------|-----------|---------------------------|
| Density | 2.57 g/cc | 0.0928 lb/in ³ |

| Component Elements Properties | Metric | English |
|-------------------------------|---------------|---------------|
| Aluminum, Al | 91.4 - 93.3 % | 91.4 - 93.3 % |
| Copper, Cu | <= 0.10 % | <= 0.10 % |
| Iron, Fe | <= 0.15 % | <= 0.15 % |
| Magnesium, Mg | 6.6 - 7.5 % | 6.6 - 7.5 % |
| Manganese, Mn | 0.10 - 0.25 % | 0.10 - 0.25 % |
| Other, each | <= 0.05 % | <= 0.05 % |
| Other, total | <= 0.15 % | <= 0.15 % |
| Silicon, Si | <= 0.20 % | <= 0.20 % |
| Titanium, Ti | <= 0.25 % | <= 0.25 % |

STRUCTURAL PARTS

- **Posts and railings:** Aluminum tube 6061-T6 of 48mm (1.9") diameter with plastic caps for the end of the tubes.
- **Stackable bases :** Ballast plate of 18.91 kg (41.7 lbs) each dimension 305 mm x 406 mm (12" x 16") made of cast iron according to ASTM A-48 class 30 including a 12 mm (1/2") thick mat for the protection of the roofing system.
- **Non-slip steps :** Safety Grating Stair Treads - 11 3/4" X 2".