

Emergency egress

Access at heights

Building façade maintenance



**JOMY**



ALUMINUM CONSTRUCTIONS FOR YOUR SAFETY

## CUSTOM CONSTRUCTIONS BASED ON MODULAR SOLUTIONS

Our modular product lines	Emergency egress	Access at heights	Building façade maintenance
1 Retractable ladders	●	●	●
2 Exterior staircases in aluminum	●	●	●
3 Permanent ladders, with or without cage	●	●	●
4 Mobile access systems	●	●	●
5 Accessory safety solutions	●	●	●



ALUMINUM CONSTRUCTIONS FOR YOUR SAFETY

> Emergency egress > Access at heights > Building façade maintenance



### Modular system

Our permanent ladders are made from anodized aluminum profiles. They are modular, based on standardized elements and designed for easy installation and wide application versatility.

### High-grade finish

The ladders are fully anodized. They feature wide rungs with anti-slip upper side, rounded oblong ladder uprights, seamless upright joining, no sharp edges, round cage uprights fixed in the center of the hoops, optional painting in any desired RAL color (polyester powder coating), etc.

### Multiple options

- Ladders with safety cage, with complete hoops, 3/4 hoops or 1/2 hoops, or without safety cage;
- Fall arrest system for ladders without safety cage. The lifeline consists of a fixed aluminum rail and a carriage (see “accessory safety solutions”);
- Rest landings according to standards: landings with changing ladder parts or folding landings;
- Access: access ladder extensions, telescopic handrail, horizontal access balcony or up-

per balcony with rungs or steps to cross roof edges, custom made access solutions, etc.;

- Burglar proof: lower counterbalanced sliding ladder (weights built-in the ladder uprights), access door;
- Fixing: many options to attach the ladder, either parallel or perpendicular to the wall, at distances ranging from 4” to 3’3” or 0.1 to 1 m;
- ...

## BASIC CONFIGURATION OF THE LADDER

### Construction and materials

- Extruded anodized aluminum profiles;
- Stainless steel fasteners;
- Factory polyester powder coating in any RAL color on request;
- In compliance with prevailing standards.

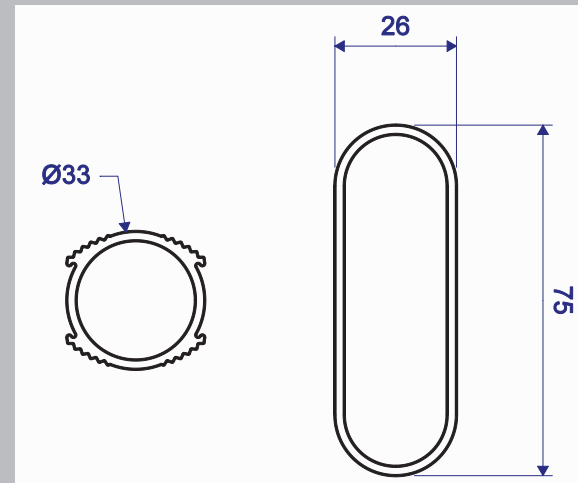
### Composition

- Standard elements assemble to any desired length via joint interlocking uprights;
- Uprights: oblong profiles 2-15/16" x 1" x 5/64" or 75 x 26 x 2 mm;
- Rungs are inserted and snapped in the uprights, and ribbed on the upper side;

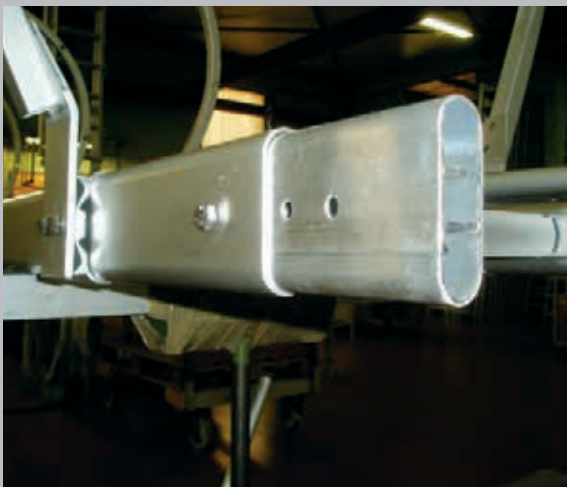
### Dimensions

- Useful rung width: 1'4" or 400 mm (other dimensions on request);
- Rungs placed every 11" or 280 mm (other dimensions on request).

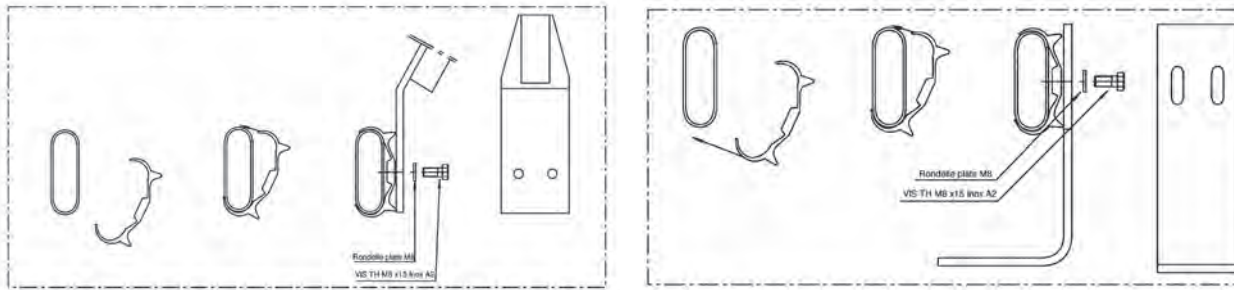
Cross section of the rung.  
Anti-slip ribs on upper side  
(measures in mm)



Cross section of the upright  
(measures in mm)

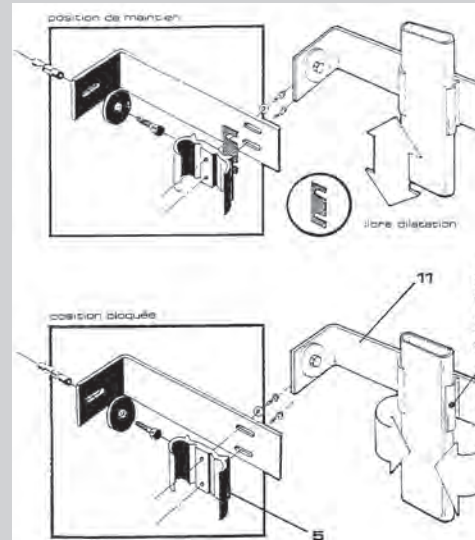


## FIXING CLAMPS



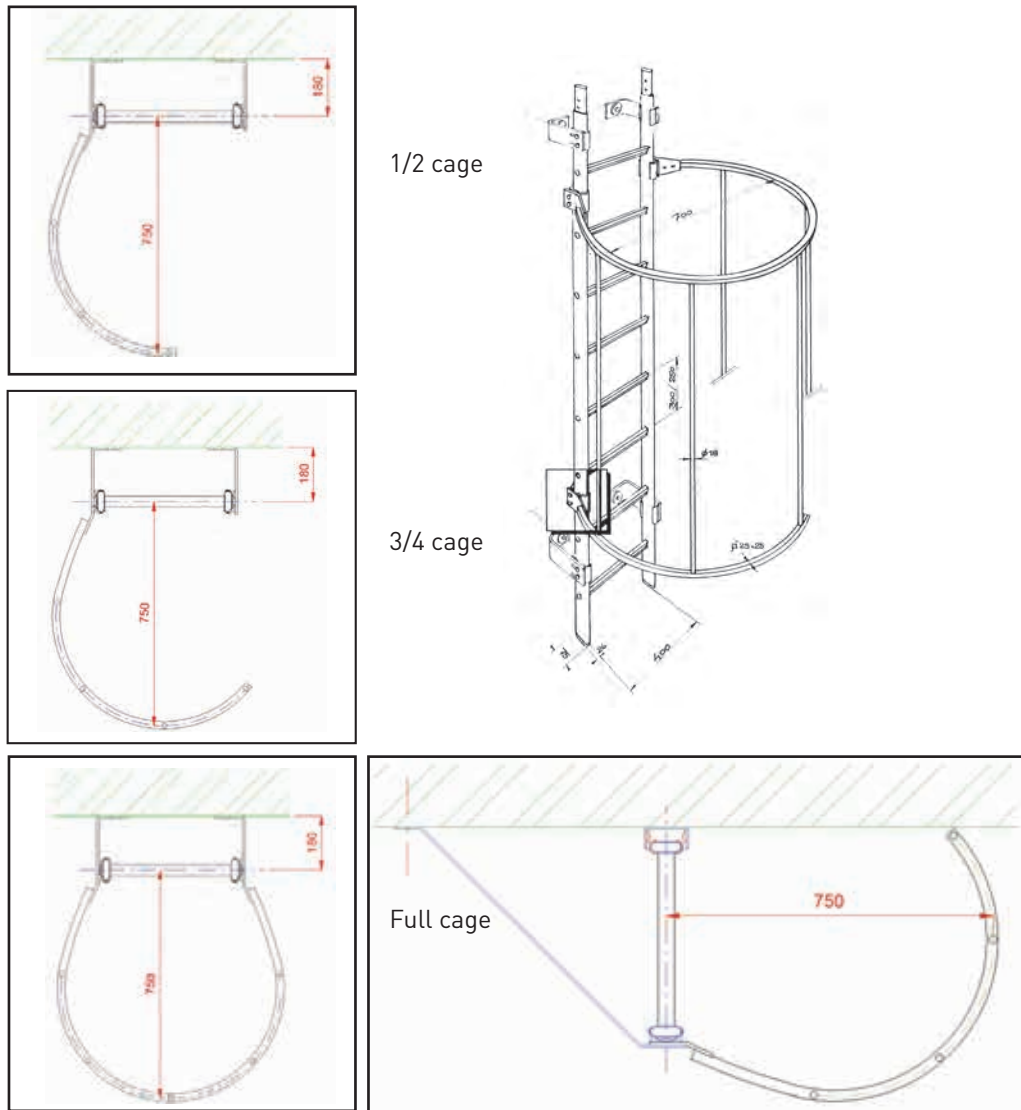
Specially designed fixing clamps (deposited design) are used for the attachment of wall fasteners and safety cage hoops to the ladder uprights. These fixing clamps can be clipped to the ladder uprights at any desired position, which, together with the availability of a large range of wall fasteners, provides for

fast and easy installation on most support structures. The ladder can be fitted parallel or perpendicular to the wall. The vertical distance between wall fasteners should not exceed 9'10" or 3 m, except when reinforced uprights are used.



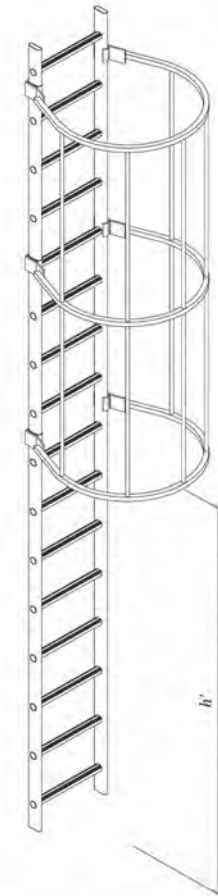
The fixing clamps can be fitted in two ways: completely fixed, or allowing vertical movement. The fitting allowing vertical movement is used for long ladders, to allow for different thermal expansion of the ladder and the building structure.

## LADDER WITH SAFETY CAGE



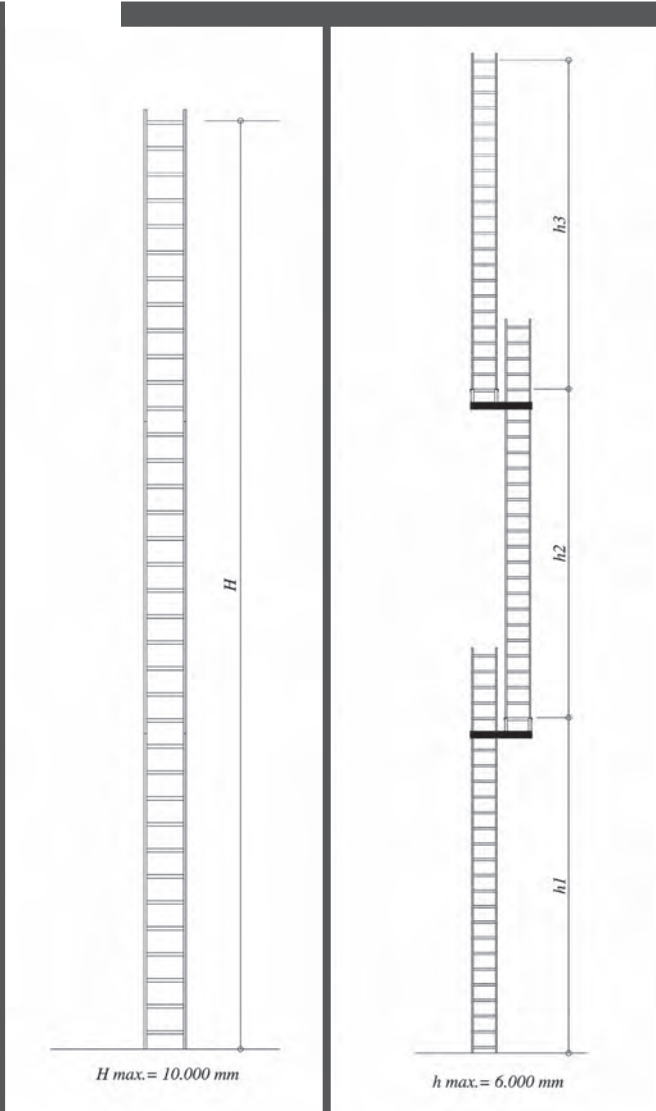
According to standard ISO 14122-4 (machinery access) a safety cage is required for ladders above 9'10" or 3 m (except when a lifeline is used, see page 3.7). The safety cage has to provide a free diameter of minimum 2'2" or 65 cm and maximum 2'7" or 80 cm.

The JOMY safety cage is composed of 5 round cage uprights  $\varnothing 11/16$ " or 18 mm, which pass centrally through the hoops with square section of 1" or 25 mm. The free diameter within the hoops is 2'4" or 70 cm. The vertical distance between the hoops can be fixed freely according to required specifications. It is recommended to limit this vertical distance to maximum 3'3" or 1 m.



$h' \text{ min.} = 2.200 \text{ mm}$   
 $h' \text{ max.} = 3.000 \text{ mm}$

## LADDER WITH SAFETY CAGE IN MULTI-FLIGHT COMPOSITION FOR HEIGHTS OVER 30 FT

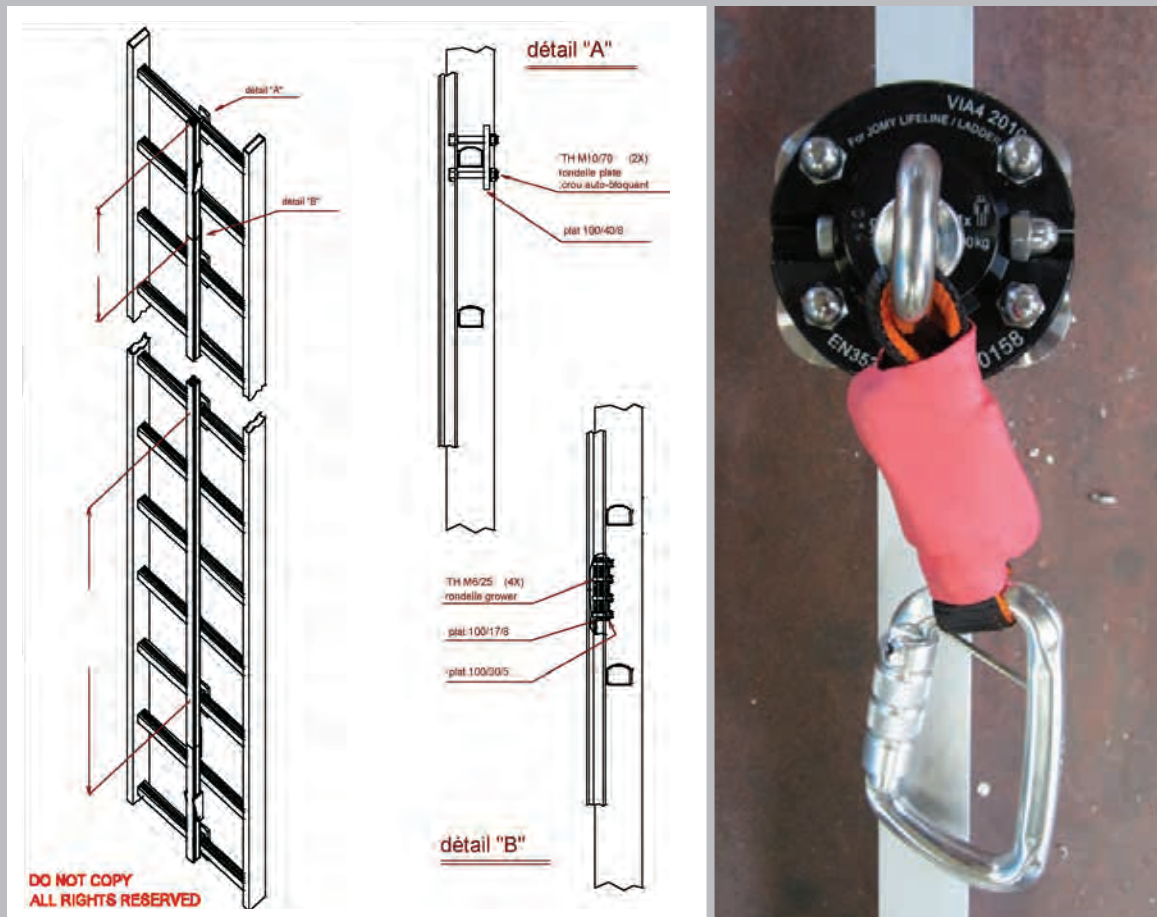


A permanent ladder in one piece cannot be longer than 30 ft or 10 m according to standard ISO 14122-4 (machinery access). Longer ladders need to be composed of multiple flights, each of which can be at most 19'8" or 6 m long. The user can switch from one flight to the next via rest-landings.



## LADDER WITH LIFELINE FALL ARREST SYSTEM

The use of a lifeline eliminates the need for a safety cage. JOMY has developed a lifeline based on a fixed aluminum rail with a mobile carriage. The user attaches his safety-belt to the carriage, which blocks on the rail in case of a fall .



- The lifeline is available in vertical and horizontal versions. Complies with standard EN 353-1 (vertical system) and EN 795 (horizontal system);
- The rail can be straight or curved (with a radius of minimum 1'8" or 50 cm). The cross section of the aluminum rail is less than 1-1/4" x 1-1/4" or 31 x 31 mm. No maintenance is required;
- Attachments are available for easy fixing to most support structures (floor, ceiling, wall, I-beam, ladder, ...);
- This fall arrest system is also available on our retractable ladders and our mobile access systems.



## LIFELINE LADDER - WITH INTEGRATED SAFETY RAIL IN LADDER UPRIGHTS



The Lifeline ladder is a ladder equipped with a Personal Protective Equipment (PPE), which is CE certified. The ladder integrates a vertical safety rail in each upright as an individual fall protection. This PPE (guided type fall arrester) is an All-In-One solution. No need for separate elements (ladder, fall arrester, ...). Additionally, the integrated safety rail in its vertical uprights makes the ladder stronger than most standards on the market which reduces the required number of anchors. As a result, the LIFELINE LADDER is very cost effective, both for materials and for installation.

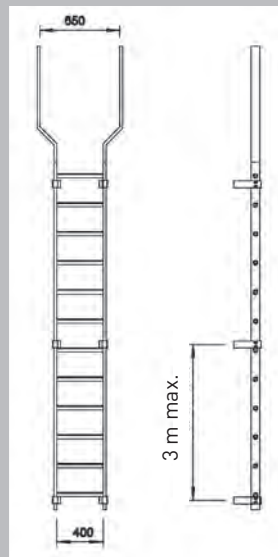
The LIFELINE ladder is often used as an access route in the following situations:

- Vertical structures:
  - Wind turbines
  - Water towers...
- Industry:
  - Access to gantry
  - Tower or chimney maintenance
  - Access to machinery ...
- Telecoms:
  - Access to communication antennas
  - Maintenance ...
- Confined spaces:
  - When no room is available for a cage ladder
- When few anchor points are available
  - Vertical distance between anchors up to 6m.



- ✓ CE approved
- ✓ Safer than a cage ladder
- ✓ Easy to install
- ✓ Less restrictions in your movements (no cage)
- ✓ Limited space required (no cage)
- ✓ More economic than a cage ladder
- ✓ PPE integrated in the ladder, no additional installation required
- ✓ Easy movements of the user along the rail
- ✓ Several workers can simultaneously use the ladder

## ACCESS TO THE LADDER



Several solutions for easy, secure, and / or burglar proof access to the ladder:

From the top:

- Widened upright extensions, without safety cage (1) or with safety cage (2, 3, 4 and 5);
- Telescopic handrail (see "ladder for use in wells", page 3.12);
- Roof-edge access landing (3 and 4).

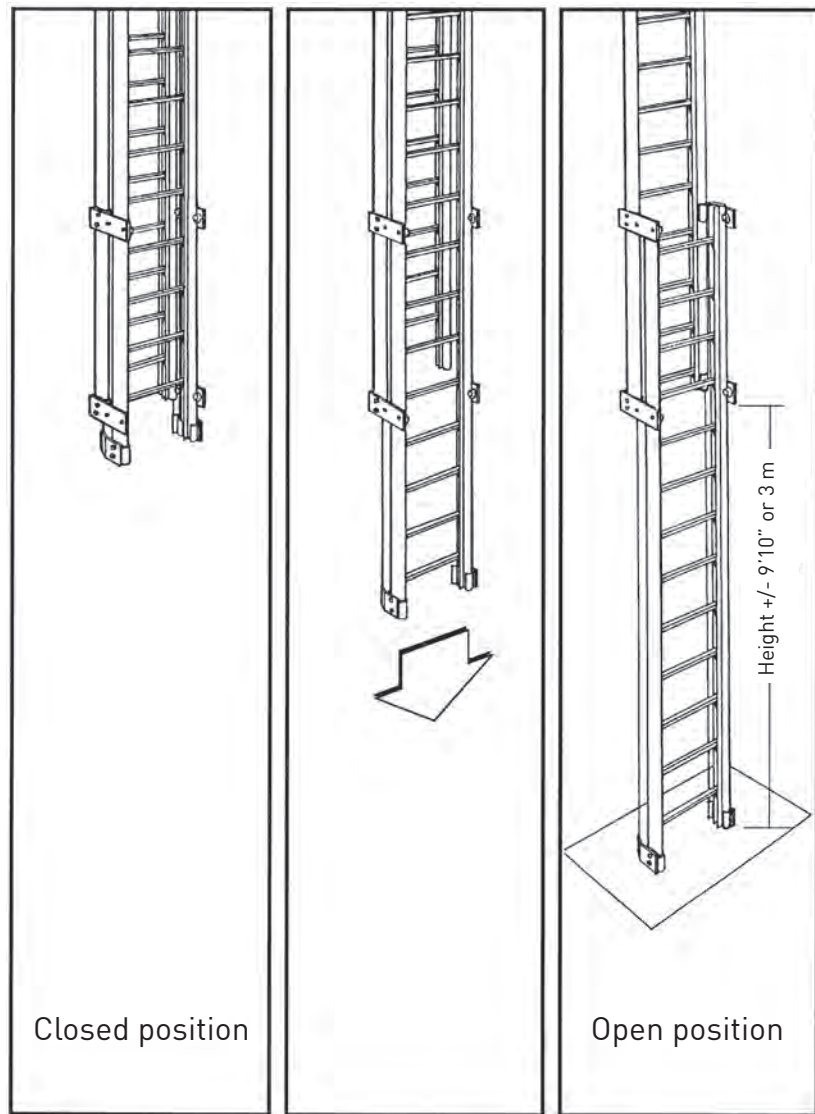
From the side:

- Custom access landings for ladders without cage or with 3/4 safety cage (see page 3.10).

From the bottom:

- Counterbalanced lower sliding ladder (see page 3.9);
- Access door with padlock (5).

## COUNTERBALANCED LOWER SLIDING LADDER



- The sliding ladder is counterbalanced by counterweights in a post parallel to the ladder upright. On release, the ladder descends softly. Remounting the ladder afterwards requires a very limited force ("one finger").
- Release of the sliding part is possible from above (evacuation / burglar proof installation), from below (access) and / or from the side with 3/4 safety cage (evacuation or access on multiple levels).
- The sliding ladder can be combined with a safety cage on the top part of the ladder.
- The maximum clearance height is 9'10" or 3 m. The sliding ladder itself has a length equal to the clearance height plus 2'9" or 84 cm (or 3 rungs).



### CUSTOM ACCESS LANDINGS

PERMANENT LADDERS  
OPTIONS



## LADDER POSITIONED AT 2 FT FROM THE FAÇADE



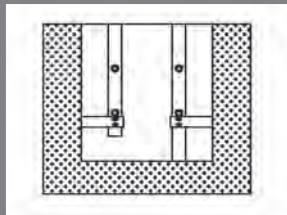
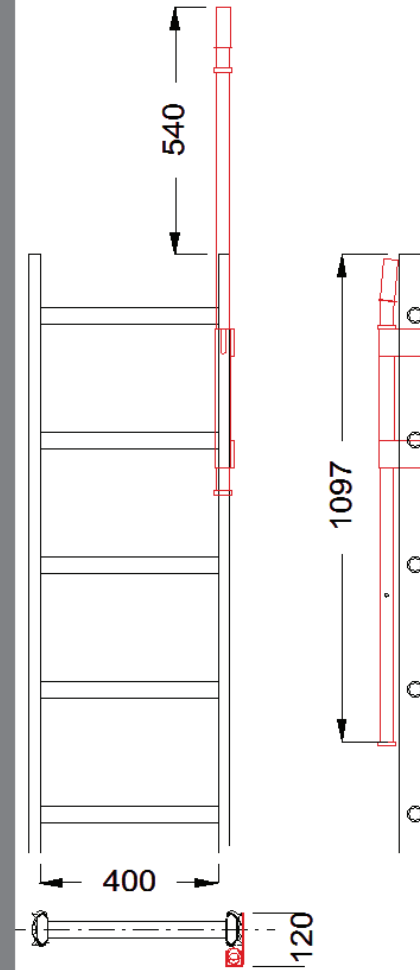
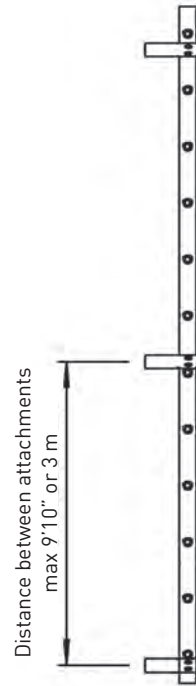
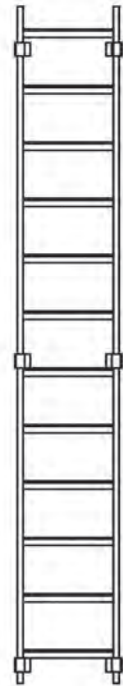
In some cases, security forces recommend to install the ladder at 2 ft or 60 cm from the façade, using the wall as an alternative to the safety cage. Options described on previous pages, such as access landings, rest landings, counter-balanced lower sliding ladder, etc. are available also in this configuration.



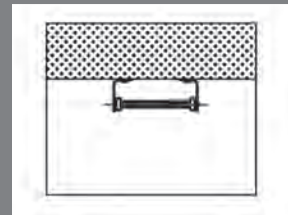
## LADDER FOR USE IN WELLS

Permanent ladders for use in wells are usually less wide:

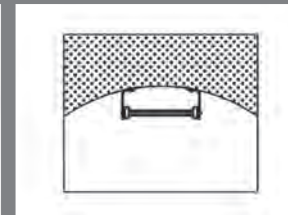
- The ladder is fixed against the well surface;
- Useful width: 1'2" or 350 mm, other dimensions available on request;
- Distance between rungs: 11" or 280 mm, other dimensions available on request.



The ladder can rest on the well floor, or can be suspended



Ladder installed against a flat well surface



Ladder installed against a curved well surface (depending on surface radius)

Telescopic handrail for easy access to the ladder



# EXAMPLES



# EXAMPLES

PERMANENT LADDERS  
EXAMPLES





## TECHNICAL SPECIFICATIONS

### 1. Materials

Only materials not subject to corrosion can be used. The ladder is made of aluminum alloy profiles, anodized 10 micron, natural mat finishing; fasteners (bolts, rivets and washers) of stainless steel A2-70 DaN/mm<sup>2</sup>; joint washers, bushes, plugs, etc. in polyamide and elastomer.

No protective treatment, painting or maintenance is required, except when exposed to aggressive environments.

No welding is allowed. The rungs are clinched into the uprights. Bolts and rivets are used for all other assembly.

The ladder can be polyester powder coated in any RAL color (*option*).

### 2. Installation

The ladder is installed vertically.

A single type of fixing clamps is used for the attachments of wall fasteners and safety cage hoops to the ladder uprights. These fixing clamps can be clipped to the ladder uprights at any desired position.

In order to take into account the different thermal expansion of the wall structure and the ladder, the ladder can expand freely within its anchor brackets without deformation or damage.

For lateral access to the ladder, the upper rung will be at approximately 5 ft or 1.5 m above the

upper point of access. For access from the top, widened upright projections, allowing a passage-way of at least 2'4" or 62 cm, can be used. In the latter case the upper rung is at level with the access floor.

### 3. Dimensions

The ladder corresponds to standards EN 131 and ISO 14122-4.

The ladder is composed of standardized elements of 11 ft or 3.36 m maximal length, which are assembled to the desired length. These elements are connected by perforated aluminum sleeves that are shifted inside the uprights. Bolts are used for fastening.

The uprights are spaced at 1'4" or 400 mm, the rung axes at 11" or 280 mm.

The ladder uprights have an oblong section (2-15/16" x 1" x 5/64" or 75 x 26 x 2 mm) with rounded corners. The rungs are round (Ø 1-3/10" or 33 mm) with a flattened and grooved anti-slip upper face.

### 4. Options

The manufacturer can equip the ladder with a safety cage, consisting of hoops and vertical bars. The hoops are bent hollow square profiles of 1" x 1" x 1/16" or 25 x 25 x 1.5 mm and the vertical bars are hollow round profiles of Ø 11/16" x 3/32"

or Ø 18 x 2.5 mm. The safety cage is available with complete hoops, 3/4 hoops or 1/2 hoops. The free passage in the safety cage is +/- Ø 2'3" or 70 cm. The vertical hoop spacing has to be adaptable, but shall not exceed 1 m.

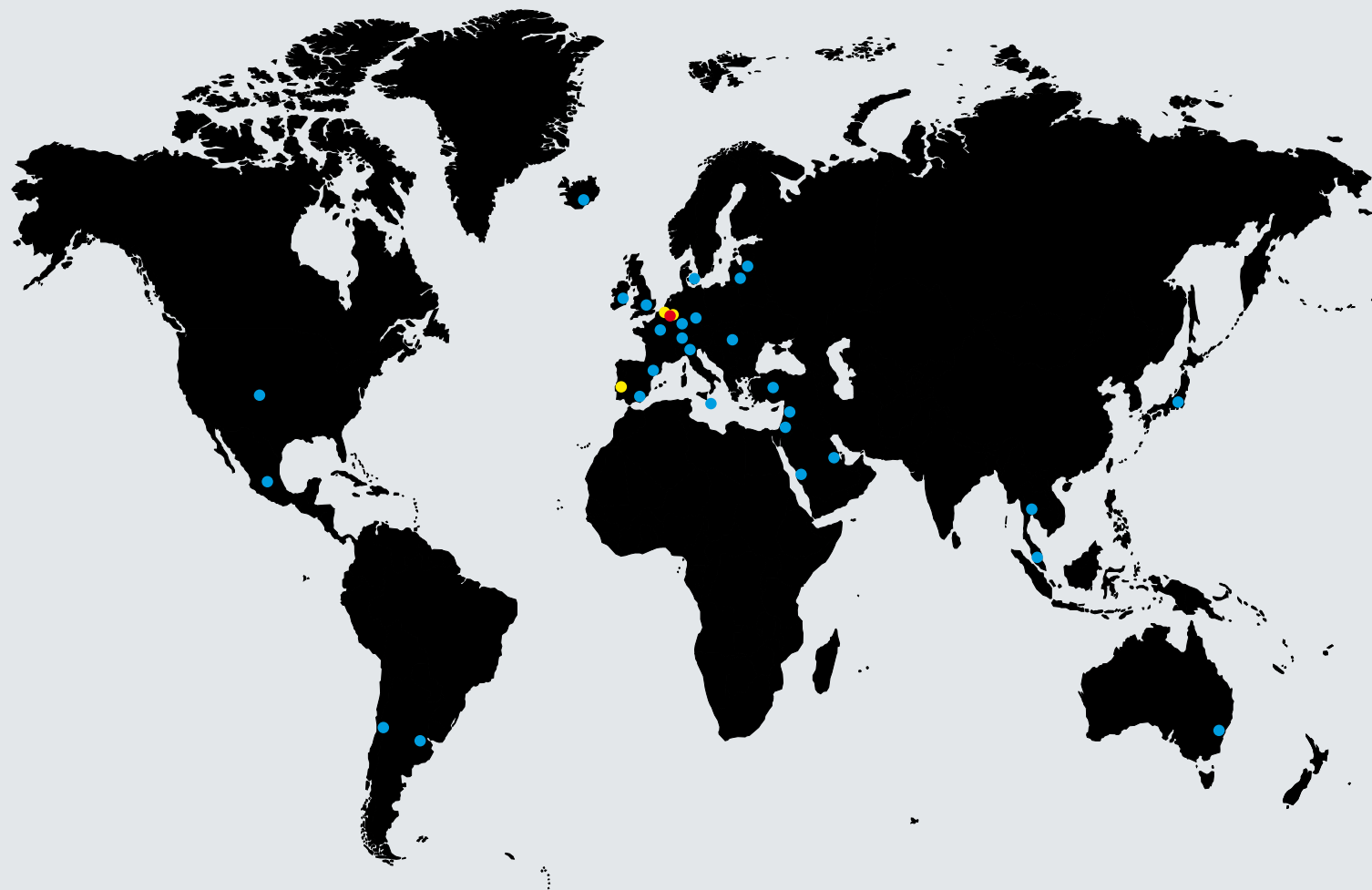
The manufacturer can equip the ladder with rest platforms with safety cage. The ladder is available in multi-flight composition.

The manufacturer can equip the ladder with a fall arrest system according to standard EN 353-1. The lifeline shall be based on a fixed aluminum rail and a stepless safety carriage.

The manufacturer can equip the ladder with a counterbalanced lower sliding ladder to prevent access by unauthorized persons:

- clearance height, i.e. the distance between the floor and the foot of the sliding ladder is maximum 9'10" or 3 m;
- the sliding part is counterbalanced by weights that shift in hollow profiles; axes, springs and cables are of stainless steel, pulley wheels of polyacetal (POM-H);
- release of the sliding part is possible via a mechanism controlled from above, from below or from the side (*to be specified*). Release via a foot treadle is possible.

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