

Ingstrom Escape Chute

General Information:

Equipment:	Escape Chute
Brand:	INGSTROM
Manufacturer:	Mobiltex evacuation system AB
Factory:	Sweden
HQ-Sales Office:	Sweden

Technical Data:

Escape Chute

This unique chute has 3-separate layers of specialized materials in its construction which protects users from flame, heat, smoke:

Inner Layer

MATERIAL: *Twaron and Flexible Rohvyl yarn based on PVC chlorofibre*

FRICION COEFFICIENT: *Low enough that no serious injuries are caused by friction*

LOAD CARRYING CAPACITY: *Up to 10,000 kilos or a maximum load of 5,600 kilos per meter width of fabric.*

TEMPERATURE: 450°C

Middle Layer

MATERIAL: Spun cell - Lycra and Modl acrylic fibers

ELASTICITY: 3x its initial width

TEMPERATURE: 175°C

Outer Layer:

MATERIAL: glass fiber, Non-flammable

TEMPERATURE: up to 800°C.

(When exposed with water, it can be used at higher temperatures)

Installation:

Permanent installed for emergency exiting

Exterior Solution:

Single-entry chute is used for external solutions. This type can be mounted on rooftop, balcony, corridor or at window. It allows people trapped in higher elevations to bypass blocked floors or blocked stairways when building are on fire (or damaged by explosions) to escape safely to the street.

The 3-protective layers chute is stored in container with a platform.

Platforms shall be custom designed to fit the installation site. The materials for the platform shall be of Steel/Aluminum.

Interior Solution:

Multi-entry chute is used for internal solutions. This type allows occupants to gain access to the chute at each floor where several levels can be simultaneously evacuated inside.

Multi- entry chutes are located in enclosed fireproof rooms with doors that automatically close after use. The 2-layers chute installed in segment at each floor inside the enclosed fireproof rooms, one segment per floor, from the highest floor to the ground floor on the same vertical line.

Materials:

All materials used for the construction of escape chute are of EU standards.

All material are tested for fire resistance according to UNE 23-727.

Inner material is tested for strength according to ISO 5081 and UNE 40-085-75.

Performance Data:

1. The escape chute can be ready to use within a few seconds from release.
2. The size for entry point of chute is 530mm diameter.
3. Average speed for evacuee with right behavior is about 2.5 m per second.
4. Maximum of 30 persons per minute can be evacuated through the chute.
5. The multiple protective layers of chute protect evacuee passing down the chute from flame, heat, and smoke.
6. No power source is required.
7. The vertical gravity descend system relies solely on body weight regardless of body size, shape and weight or injured on stretcher or unconscious people. Once inside the chute they will arrive at ground level quickly and relatively safely.
8. Can transport a continuous flow of evacuees.
9. Require little or no instruction for use.
10. Require little physical exertion in sliding down the chutes.
11. Users have the ability to self-control the speed of own descends and also allow external means to control the speed of one's descend from the outside at ground.
12. Suitable for all ages and physical conditions of evacuees, including disabled people.
13. Enable rescue personnel to control the evacuation process.

Recommendations:

- Recommended users for industrial applications to comply with NFPA 101 Chapter 40 recommendation: “Industrial Occupancies”, allows slides (chutes) to be used for 100% of the emergency exiting capacity of high-hazard occupancies, but only when potential evacuees are regularly trained in their use.
- Recommended users for aiding building evacuation to comply with NFPA’s recommendation for high-rise external chute devices for evacuation of persons when primary evacuation routes to a safe zone are unavailable.
- NIST recommends that the full range of current and next generation evacuation technologies should be evaluated for future use, including protected/hardened elevators, *exterior escape devices*, and stairwell navigation devices, *which may allow all occupants an equal opportunity for evacuation* and facilitate emergency response access.