BUILDING REQUIREMENTS FOR THE INSTALLATION OF INGSTRÖM'S SINGLE-ENTRY ESCAPE CHUTE

The purpose of this document is to provide some basic information necessary for building safety professionals, owners and management of buildings, first-time buyers when assessing and determining Ingström's Single-Entry Escape Chute suitability for their building exit strategies.

Single-entry escape chute – It is permanently installed at a fixed location for used as "Emergency Exit" for building external evacuation system, the type mounted on the rooftop, balcony or corridor, window type, and other special evacuation opening from the building, which gives occupants access to the chute on that floor.

It is an exterior egress path: using the exterior wall assembly to support additional egress systems. It is intended to provide alternate paths of egress in the case of critical compromise of the primary path, and to provide additional paths of egress to alleviate congestion in the primary path - a more efficient evacuation sequence for the entire building. Egress path inside the chute tube protects Users from fire effects.

One chute serves one floor. Require three separate layers of specialized chute fabrics: Outer layer - Fiberglass, Middle layer - Spuncell elastic, Inner layer - Aramid. Maximum length of chute or height of building is 200m. Weather sensitive, sensitive to strong wind, needs stable platform and more maintenance for outdoor units.

Requires custom makes platform to fit well the installation site that is stable to support people with a total weight of 1000kg regardless of chute length. Depending on the design, the unit has a unique entrance and the full-length chute is folded and stored inside a closed container with a rapid opening device. The container is mounted on a chute platform.

The location of the installation site in which Escape Chute installation is planned shall have a floor space of about 2 square metres and other needed parameters that allow the Escape Chute to be installed and used in a safe manner. The installation site shall allow the chute to have a clear vertical descent route to the landing site with no interferences or obstructions or setbacks such as, power lines, balconies, air-conditioning units, awnings or other obstacles along the vertical egress path and at the landing area. Where feasible, the chute's vertical descent route should be away from the potential exposure of Users to risks and hazards like smoke and flames. But nonetheless, the Escape Chute tube is constructed to protect Users inside the chute from fire effects during evacuation.

A safe and easy access routes to windows, balconies, corridors, terrace, rooftops and other available provisions such as special evacuation openings from the building are all possible evacuation sites for the installation of Escape Chute. Where two or more Escape Chutes are installed in a building, at least two evacuation sites shall be remotely located from one another that allows people safe access into the Escape Chute to safe exit from the building, where practical.

Building's evacuation exits to the Escape Chute installation such as windows or other openings shall be modified if needed to allow safe access and entrance from the building to the Escape Chute installation. The width and height of the evacuation exits for access to the Escape Chute installation shall be no less than: 800mm width, and 1,200mm height. When these terms are impossible, an alternative solution shall be provided. The opening doors of the evacuation exits if needed shall be of sliding door, or of doors that either fully opening outward facing the exterior wall or doors that fully opening inward facing the interior wall.

Access to Escape Chute installation should take into consideration the limitations of people with disabilities, elderly persons and young children - disability to open the door or window or walk up to the entry point of escape chute. The evacuation exits shall contain an access ramp and ladder that allows all Users safe access to the Escape Chute installation, where practical.

Selection for the designated evacuation floor(s), the strategic evacuation site(s) to building evacuation exit(s) where the location of the installation site(s) for the Escape Chute installation(s) should be located is/are relative to the building escape routes and determined by building exit strategies. The evacuation floors shall have a safe access to and egress from the evacuation site that allows persons entering to Escape Chute installation via building evacuation exit during evacuation.

Building signage for access to exits shall be marked by an approved, readily visible sign. When an exit or the way to reach an exit is not obvious, exit directional signs of photoluminescent safety markings may be used and should be placed to direct to the exit access. Sign legend for exits to the Escape Chute installations shall read in plainly legible letters: "EMERGENCY EXIT to Escape Chute" and is readily visible from any direction of access. Emergency lights shall illuminate the access area to "EMERGENCY EXIT to Escape Chute" when the building requires emergency lighting.

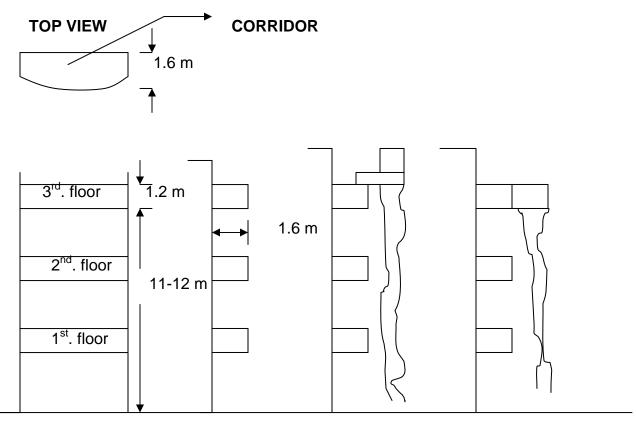
The landing site on the ground for final exit of the Escape Chute shall be designated a 'clear space' of a minimum 1 square metre for landing area and free from obstruction at all times.

Optional items - the landing area may have 'Cast-In-Situ Rubber Flooring' placed on the ground. Other optional items include Emergency lights; Exit light; Walkytalky; Escape smokes hood.

Ordering Information:

Please provide information on:

- 1 Evacuation Site (provide pictures or sketches): window or rooftop or balcony or corridor or special evacuation openings from the building.
- 2 Escape Chute Installation Site: measurement of available space, load capability of floor, materials of floor and wall structure where the installation of Escape Chute will be retrofitted/mounted.
- Building Evacuation Exit to Escape Chute installation site (provide sketches): measurements in length x width, thickness of parapet or wall.
- 4 Distance from desired height of platform at building evacuation exit to the ground at the landing site.
- 5 Building vertical configuration with setbacks (if exist) around the perimeter and approximate clearance.

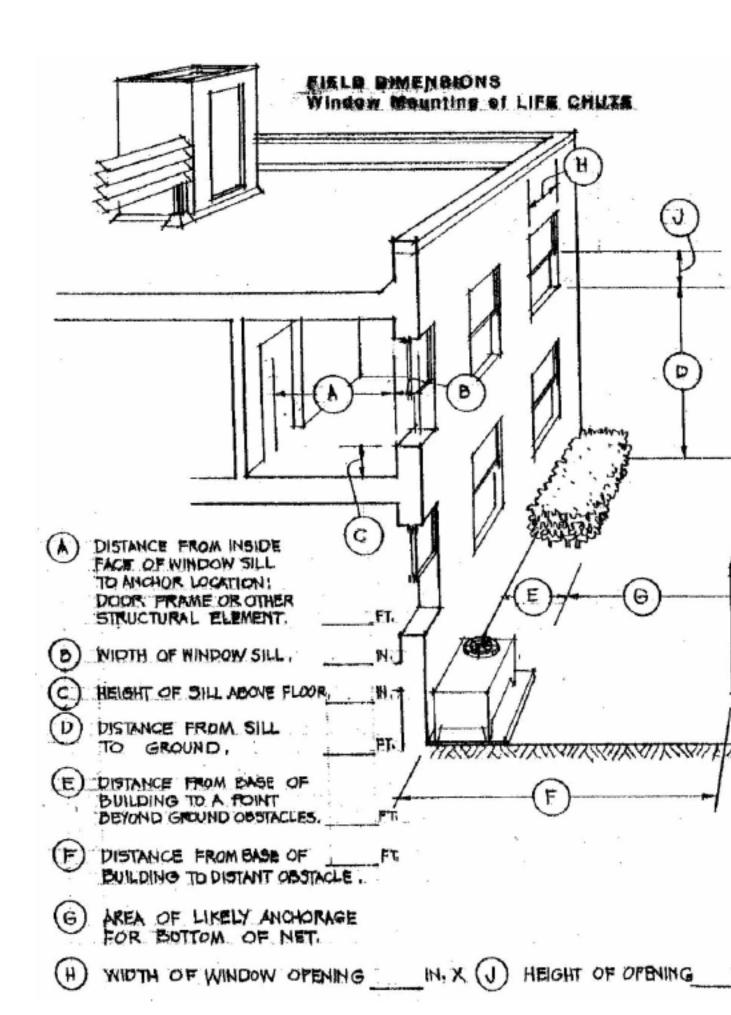


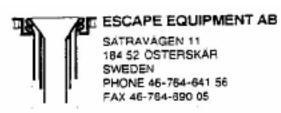
FRONT VIEW SIDE VIEW 1st. platform 2nd. Platform

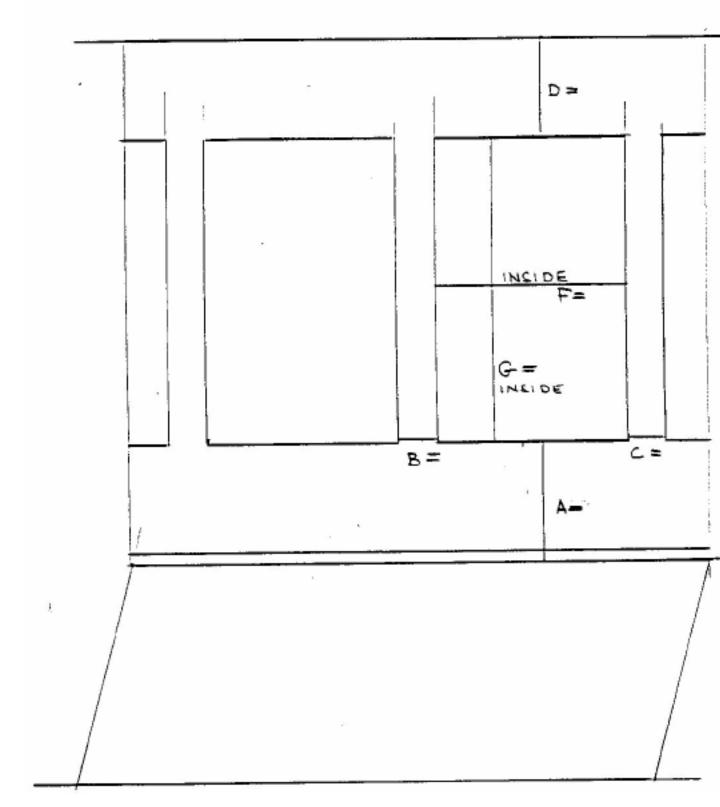
² options design of single-entrance platform for the installation at the 3rd floor corridor with 1.6m width floor space:

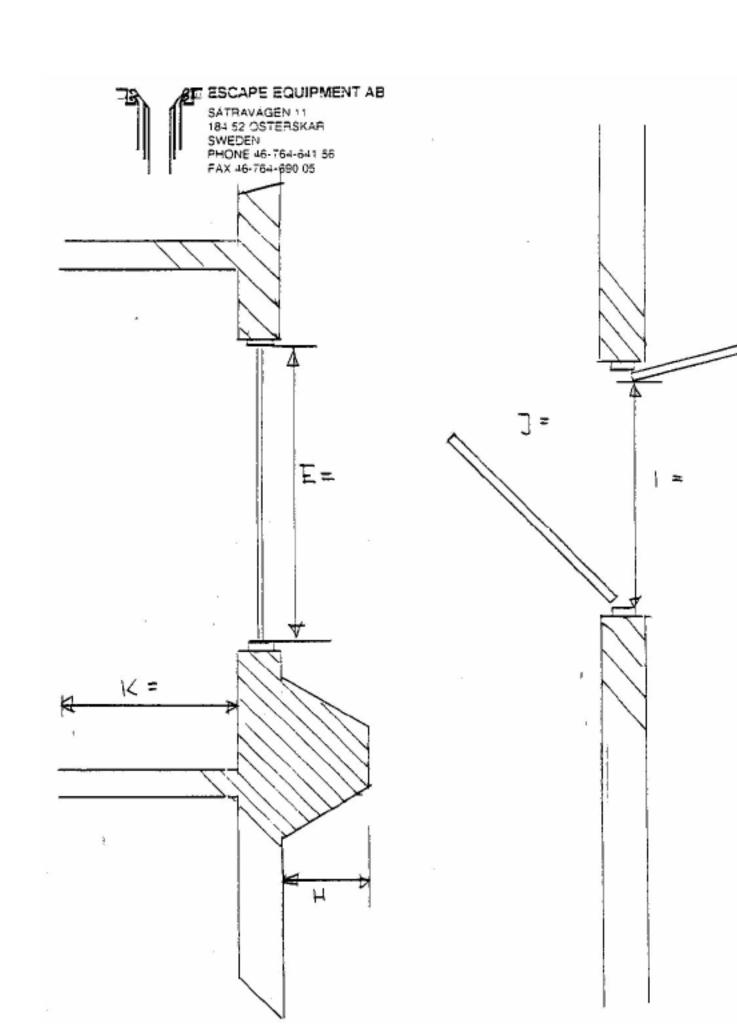
⁽¹⁾ A box-platform with 3 sides fence that fixed permanently on the external wall of the corridor. The advantage for this option is that it is less costly and that the inside corridor space is still can be used by the occupancy (moving along the corridor freely).

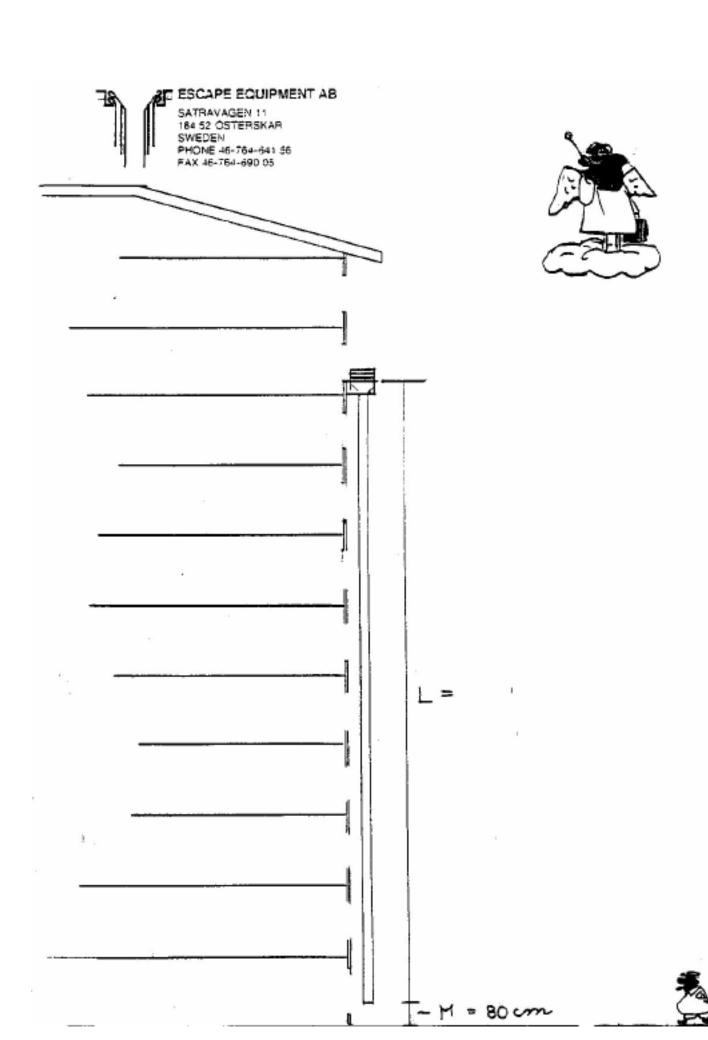
⁽²⁾ The movable platform (slide in and out) will move across the corridor wall (1.2m H) when in used and will be kept inside the corridor space of 1.6m width floor space when unused. This option is more costly and that the inside corridor space cannot be fully used by the occupancy because this movable platform will be installed inside the corridor space.











Safety Considerations

Every Ingström Escape Chute installation is designed to meet stringent requirements for safety, strength and reliability for aiding emergency egress, and has give substantive consideration to User safety, taking into account the emergency situations in which it would be utilized. But nonetheless, buyers and suppliers should also do a hazard analysis and risk assessment of the intent use or the role of the Escape Chute in their overall building evacuation plan that they are considering.

Like in all fire protection equipment, Escape Chute system shall be in good working conditions and ever ready for use virtually throughout its life; periodic maintenance to ensure proper storage of chute and its ready conditions for use at any moment is extremely important.

Fire drills are supposed to prevent the Titanic effect-chaos in the event of a mass evacuation. The use of Escape Chute system should be used in accordance with the building evacuation plan, including users training and fire drill activities. As in all evacuation plans, first responders, building managers and even tenants would need to be trained and drilled in how to use the evacuation chute safely to ensure that the last great barrier to egress is overcome for all. After building occupants are familiar with the use of the Escape Chute, it becomes as effective as any other facilities used for aiding evacuation. With frequent practice in drills, people's fear of entrapment is reduced when they know there is an alternative way out.

The information contained in this document does not purport to address all of the safety concerns, if any, associated with its application/use. It is the responsibility of the buyer/user of the information to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Special considerations and potential significant hazards to specific Users of Escape Chute or adverse weather conditions that might be encountered that might affect the usability of the Escape Chute system in a safe manner that do not pertain to the design, construction and installation, if any

Warranty and After Sales Service

Product warranty from manufacturer defects of 18 months from shipment and includes replacement of damaged parts on what the factory (Mobiltex Evacuation Systems) supplied in accordance to EC norm.

The warranty period shall be reduced to 18 months from the date of testing & commissioning when Buyer did not take up the yearly maintenance agreement.

The warranty period can be extended for up to ten years by entering a yearly maintenance agreement.

* If you have questions or need clarification or need more information on this document, email to sales@escapeconsult.com