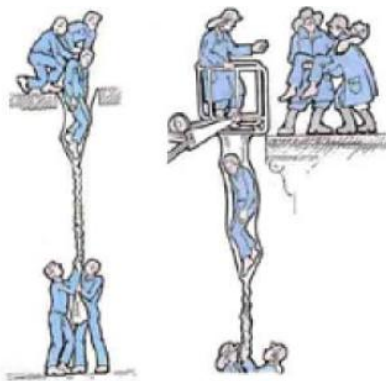


*“The INGSTROM Escape Chute is fast and efficient escape system. When permanently installed the escape chute is ready to use within a few seconds from release. Depend of the length and construction it enables as many as 30 people a minute from danger or fire”*



**INGSTROM** Escape Chute is a complete escape system:

- Chutes for indoor, outdoor or movable use
- Key in hand installations
- Complete training system for use of the chute
- Service of the chute

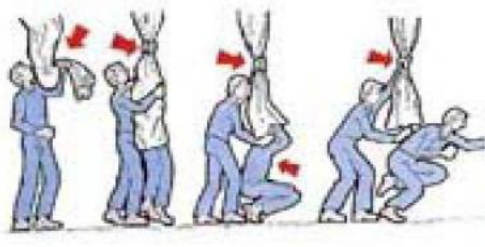
#### A simple escape system

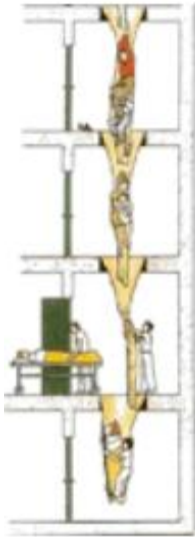
the INGSTROM Escape Chute in a safe way. The construction of the chute helps to protect the evacuees from heat, fire and used for rescuing the old and the handicapped, and it enables unconscious patients and those on stretchers to be brought to safety, with training. This is something what is difficult and heavy to do with traditional rescue equipment.



#### Three-way protection

The escape chute consists of three layers. The outer layer is material which does not ignite even when exposed to open flame. The intermediate which helps to regulate the speed at which the escapee passes down the chute. The inner, supporting layer is made from Kelvar fibre, which has ten times the tensile strength of chlorovinylque fibre to help to avoid injuries caused by friction.

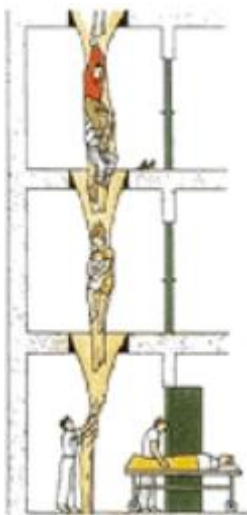




## Solutions - Multi Entry

This multiple escape chute system is installed inside a protected vertical shaft enclosure that is constructed in accordance to local fire code that provides protection from fire effects for evacuees so that it can be used safely for egress. This interior chute is constructed of 2 layers, the outer layer provides a speed restraining effect and the inner layer supports the whole weight of chute. The chute is installed in segment at each floor level inside the fire-protected shaft, one segment of chute per floor, from the highest floor to the ground floor on the same vertical line. One chute serves many floors and occupants can gain access to the chute at each floor. It has no length and height constraints.

*The longest one in use is 165m at the Nation Tower, Bangkok, Thailand.*



## Solutions - Egress Design

### *"Accessible Means of Escape Design"*

This egress design is a unique and integral part of the enhanced staircase development of vertical exits in tall building. It requires the ability of incorporating the facility of multiple escape chute system inside the enhanced staircase enclosure. When fire occurs, the disabled and the severe mobility impaired will have to make their way, assist or unassisted, and take temporary refuge inside this stair enclosure that would get them to the ground floor more quickly and relatively safely or to be assisted by helpers down the stairs.

## Solutions - Single Entry

This one entry chute installed in old or existing building whereby there is no possibility of incorporating the "Multi-Entry" chute. Each chute installation at window, balcony, rooftop, best serves the occupants of that particular floor. This exterior chute is constructed of 3 layers, the outer layer is fire resistant - protects the chute against flames, the middle layer provides a speed restraining effect, and the inner layer supports the whole weight of chute. This 3-way protection protects the evacuees once inside the chute from fire, heat, and smoke during evacuation. Available in a maximum length of 200m.

*The longest such chute in use to date is 122m at Intraco Building, Warsaw, Poland.*

## Information

- Recommended only when there are no possibilities for installation of multi-entry mode.
- One chute serves one floor.
- Weather sensitive, sensitive to strong wind, need more maintenance for outdoor units.
- Need stable platform to support people with a total weight of 1000kg regardless of chute length.
- The unit has a unique entrance and the full-length chute is folded into a closed container with a rapid opening device.
- The container is mounted on a chute platform.
- Installation sites: window, balcony, terrace, rooftop, off-shore deck.
- Maximum length of chute or height of building is 200m.
- Three layers chute fabrics: Outer layer - Fiberglass, Middle layer - Spuncell elastic, Inner layer - Kevlar).
- Other accessories: Emergency light, Exit light. Walky-talky, Escape smokes hood.



## Solutions - Industrial Applications



With the Occupational Health & Safety legislation now in place, employers must provide adequate means of quick escape for workers working in height. In the event of a hazard in the workplace or workstation at tall structure, such workers have a right to egress quickly, which is the responsibility of employers and safety managers.

In many situations, escape chute usability by all people provides solution to such emergency situations. Escape chutes can and are used in various industrial areas, anywhere where a worker could be trapped in an emergency situation with no other means of emergency egress. For example, with installation of an escape chute in grain silos, process plants, control towers, hydraulic mining shovels, overhead cranes, etc., in an emergency situation,

## Solutions - Portable Entry



Escape Chutes can be fitted to Fire Department Aerial Ladders and Snorkel Platforms, this will increase the rate at which evacuees can be evacuated from a high rise building, thus reducing the risk exposure of the fireman.

The movable/portable chute has become standard rescue equipment used by fire bridges worldwide for high rise rescue operations. With additional equipment, the portable platform can also be mounted on the parapet of the balcony and window. The chute is constructed of 3 layers, the outer layer is fire resistant-protects the chute against flames, the middle layer provides a speed restraining effect, and the inner layer supports the whole weight of chute. This 3-way protection protect the evacuees once inside the chute from flame, heat, and smoke during rescue operation.

*The longest one in use is 61m on Bronto Skylift.*

With the Aluminium legs the standard fire truck platform can be move to the windows or balcony. The set contains of 2 expanding vertical legs (work with 2 hydraulic jacks) and 2 horizontal arms.