

# Height Safety, Confined Entry and Rescue & Evacuation Systems



*Safety: a vital investment!*

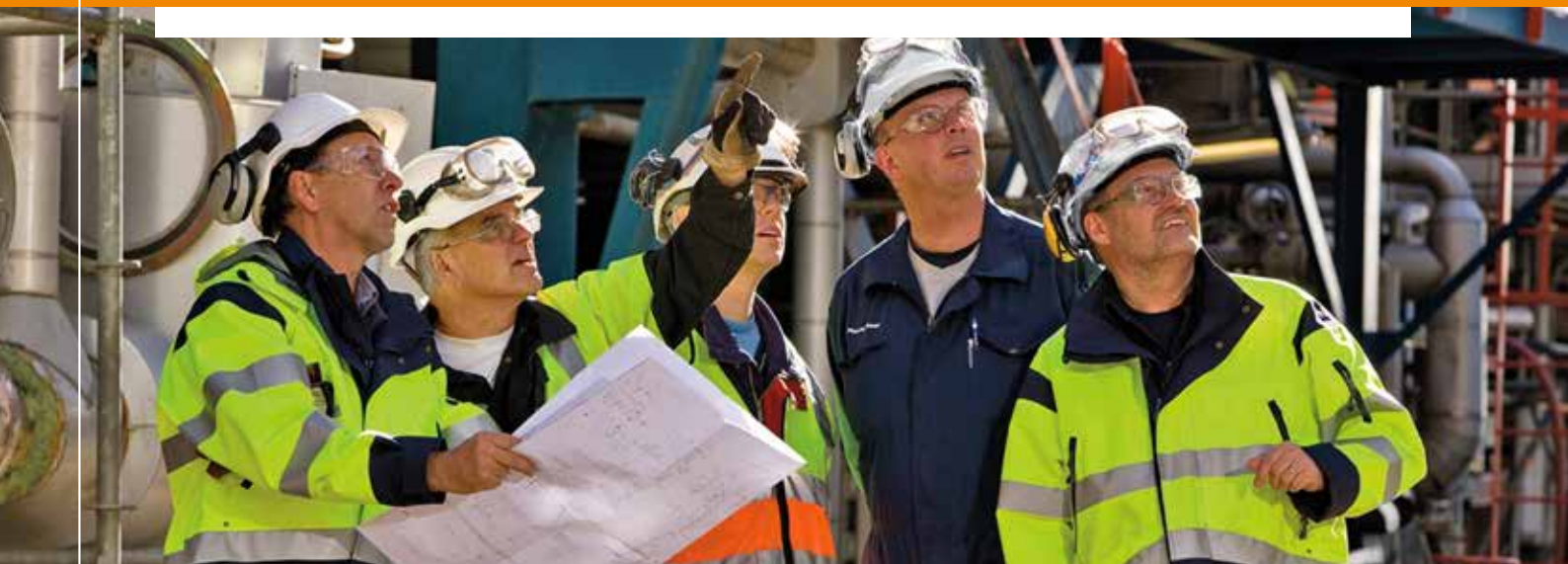


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## Premium product-concepts for: Height Safety, Evacuation and Rescue

Since our foundation in 1948, HONOR Safety & Consultancy is a company with international experience developing and manufacturing premium product-concepts in the field of height safety, evacuation and rescue systems and has developed many unique solutions based on safety issues in practice.

HONOR Safety & Consultancy is located in Almere (near Amsterdam), the Netherlands. Our product-concepts are developed and MADE IN HOLLAND, applying genuine virgin materials and producing under sustainable conditions!

Working together with industrial designers, customers and distributors, many HONOR-solutions are internationally patented, often nominated and

even winner of the international prestigious Dutch Design Award!

Although HONOR is an international operating private company, we sell direct to end users in the Netherlands. This always has been a strategic decision to be able to understand the solutions needed by end-users in relevant market segments. We are convinced that, with the know-how and experience we develop this way, we are able to introduce the better safety solutions.

HONOR is certified in accordance to ISO 9001:2015 and in conformance to PPE Regulation (EU) 2016/425 Module C2 (Annex IV) and SCC ('SCC' is the abbreviation for SHE Checklist Contractors and is managed by the Foundation Cooperation for Safety {SSW}).

*Safety: a vital investment!*





# HONOR Safety & Consultancy B.V.

Focussing on just two specific product groups HONOR is a specialist manufacturer of premium height safety solutions and rescue and evacuation systems. We distinguish ourselves through our innovative, safe, high-quality concepts that are characterized by their unique, problem-solving abilities, user-friendliness, ergonomics, modular designs, lowest total-costs-of-ownership and solid reputation. We have the ambition to achieve the best possible solutions in both our specialist areas, to be determined as such by our customers! We do this by bringing together (end-user) expertise, knowledge and engineering qualities.

In the Netherlands we advise and sell to end users by means of our direct sales organization and export worldwide through selective export distributors in your region.

Based on our safety and mechanical engineering background, Risk Assessment approach, leading to product solutions tailored to the relevant sector and specific industry with their operations. At HONOR we encourage our staff to think out of the box, and we are constantly on the look-out for radical safety solutions, often exploiting state-of-the-art technology. All our solutions are in full compliance with current legislation on Industrial and Personal Protective Equipment.



### Added value

HONOR consciously focuses on these two product groups. Each group demonstrates significant technical promise both in theory and in practice, and each calls for scarce technical skills, knowledge and experience. Our total concept in these areas can meet all safety needs, from a standard solution through to fully client-specific turn-key projects.

Nevertheless legislations states that measures for fall protection, evacuation and rescue systems must be put in place by the employer of any person working at a height where a fall hazard exists, during confined entry, rescue, etc. The regulations also requires that people involved in this kind of work are competent to do so or, if in training, are supervised by a competent person. If it is not feasible to eliminate the hazard using a collective system then personal protective equipment (PPE) must be selected and used. It could be for restraint, work positioning, fall arrest purposes, safe entry or rescue.

Height safety systems can be divided in four basic systems, depending on the work that has to be done: 1) stationary, 2) vertical, 3) horizontal and 4) 3-dimensional. Too often, and for obvious reasons, the wrong systems are in use!

HONOR solutions are designed and tested by qualified engineers and technicians at state-of-the-art, in-house testing facilities, which not only verifies that specific standards are achieved but in our designs we strive to achieve better results beyond the standards, user friendliness, freedom of movement, ergonomics, etc. to assure the ultimate in safety performance.

In addition, our HONOR products and systems are third-party tested by independent Notified Bodies to further certify compliance. HONOR Safety & Consultancy has successfully earned and continues to retain ISO 9001 certification. We have undergone the most stringent requirements for design and development, production and service, proof of our ongoing commitment to consistent quality products and services. It is our way of living!







# Product development and manufacturing

As far back as 1948 we were developing and manufacturing safety products in-house, in response to safety issues affecting our clients. In close consultation and based on mutual trust in each other's expertise, we optimise safety in partnership with our clients.

## Innovation

At HONOR we are continuously engaged in product innovation and improvement. The standards we impose on ourselves continue to rise in line with the requirements of our clients and regional legislation on safety equipment. This requires an alert, pioneering attitude. Innovative techniques and use of materials with new properties. We encourage ourselves and push our partners to go one step further, to achieve more. The aim: to harness HONOR's innovative strength to create client-oriented solutions and services.



We convert expertise into innovative and effective solutions. Over the years, HONOR has developed a range of new unique products and services, making no concessions where safety is concerned.



## Manufacture

The products we develop are produced in our own workshops. We have a full range of modern production equipment: CNC milling machines and lathes, etcetera and work with innovative partners. As manufacturers of safety equipment and as an Original Equipment Manufacturer (OEM) we made a conscious decision to become involved at every level of the supply chain, realising that this would lead to short lines of communication and allow us to apply our expertise most effectively.





*From idea to product realization.*





## Height Safety

HONOR produces a full range of modular fall protection systems. Our goal is to achieve the optimum solution while working at heights. This means the fall protection systems applied must not hinder users during their work at height. And this is not as easy to realize in practice as it seems. Where there is increased risk, for example when working over water, or where chemical substances, sharp objects, traffic or machinery are involved, optimum safety measures are required. We love our job!

### **Effectiveness and optimal comfort**

The working location and the nature of work at heights can vary considerably. In practice, standard equipment does not always prove adequate. Besides being effective, for safe and smooth operation the equipment must also be user-friendly, offer optimal comfort and provide freedom of movement. Customised fall protection equipment is the only way to guarantee optimal protection for your employees.



### **Stationary up to three-dimensional systems**

HONOR manufactures premium quality fall protection systems. The starting points for the design of any HONOR system are always the practical situation on site and the requirements of the users. All critical factors in the workplace must be analysed in detail, with the human factor as the guiding principle. Although a situation may be assessed as complex, a 'simple' – because well thought out - system may be the solution. In other circumstances optimal safety may only be achieved by an automatic three-dimensional protection system.

### **Customised solutions**

From effective basic solutions to complete turn-key installed systems, our clients' practical problems continue to inspire us and our export distributor partners to innovate and create better fall protection. Our aim is to develop and manufacture optimum solutions beyond imaginary boundaries.



# Confined Entry, Rescue & Evacuation

HONOR Safety & Consultancy manufactures a wide range of confined entry, rescue and evacuation systems: for rescue from heights and depths, evacuation from wind and offshore installations, for maintenance and inspection work in silos, reactors and a myriad other applications. From davits and tripods to water and ice rescue, from RescueSlide to automatic descenders with integrated winch, HONOR is happy to be your partner in all safety and rescue aspects.

## **It's the combination that counts**

Rescues and evacuations can only be successful if 'fail safe' equipment is used in the right place and in the right way. This means equipment, procedures, location, and the education and training of the users must all be coordinated down to the last detail. HONOR offers customised total packages for all levels of rescue and evacuation as well as equipment to cover the most diverse situations.

## **Quality is crucial**

Safety, effectiveness and user-friendliness are vitally important developing optimum rescue and evacuation systems. But the quality, durability of the equipment is essential too. The HONOR systems comply with the highest quality standards. Users in varied industries have to be able to rely on their rescue systems under all circumstances.

## **Rescue systems from purchase to inspection**

Since HONOR introduced the Rollgliss descender device in 1972, the solution providing range of rescue systems on offer has considerably expanded to minimise risks.



## **No concessions**

Product development and improvement is a continuous process at HONOR and is implemented down to the smallest detail. The same applies to rescue and evacuation equipment. The design of every product is based on the principles to provide optimum safety and user friendliness. Products are continually tested, before and during the design phase, at the time of launch and after intensive use in harsh aggressive environments.





# Legal requirements and standards

Regulation (EU) 2016/425 - "essential requirements" for PPE at the time of manufacture and before placed on the market.

PPE against falls from a height are covered by this Regulation and considered as category-III equipment. This means, that all these products need:

- a type examination certificate and
  - a supervision of the production,
- both carried out by a Notified Body. The products have to be marked clearly with CE 0000, containing the identification number of the Notified Body, who carries out the supervision of the production.

## Scope of the Regulation for equipment against fall from a height:

The scope of the Regulation is extensive and covers PPE for use at the workplace as well as for use at sports and leisure



activities, i.e. in this case in particular mountaineering equipment. Because it is not always clear for parties (users, purchasers, manufacturers), which kind of PPE is covered by the conformity assessment procedure for Category-III in detail, the Coordination Group VG 11 of Notified bodies published the "Recommendations for Use", listing the PPE's against falls from a height covered by the PPE Regulation and belonging to Category-III.

## Directive 89/656/EC - use of personal protective equipment

Minimum health and safety requirements for the use by users of personal protective equipment at the workplace.

## Directive 2001/45/EC

Minimum safety and health requirements for the use of work equipment by users at work. Amending Council Directive 89/655/EC concerning the minimum safety and health requirements for the use of work equipment by users at work (second individual Directive within the meaning of Article 16(1) of Directive 89/391/EC).

## Machine Directive 2006/42/EC

Contains the fundamental safety - and healthcare - requirements concerning the design and construction of machinery.

## ISO 12100 - Safety of machinery

General principles for design – Risk assessment and risk reduction.

## EN 1808 - Safety requirements on suspended access equipment

Design calculations, stability criteria, construction.  
Test requirements.

## Personal protective equipment against falls from a height:

**EN 341:** Descender devices

- Type-A: descent energy  $W$  up to  $7,5 \times 106$  J;
- Type-B: descent energy  $W$  up to  $1,5 \times 106$  J;
- Type-C: descent energy  $W$  up to  $0,5 \times 106$  J;
- Type-D: For only one descent. Descent energy depends on the maximum descent height and the maximum rated load. 'FOR SINGLE USE ONLY'!

**EN 353-1:** Guided type fall arrestors including a rigid anchor

**EN 353-2:** Type fall arrestors including a flexible anchor line

**EN 354:** Lanyards

**EN 355:** Energy absorbers

**EN 358:** Belts for work positioning and restraint and work positioning lanyards

**EN 360:** Retractable type fall arrestors

**EN 361:** Full body harnesses

**EN 362:** Connectors

**EN 363:** Fall arrest systems

**EN 364:** Test methods

**EN 365:** Minimum general requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging of PPE

**EN 795:** Anchor devices, Type A-E

**EN 813:** Sit harnesses

**EN 1496:** Rescue lifting devices

- Type-A: to lift a person from a lower to a higher place
- Type-B: for lowering a person over a distance limited to 2 m

**EN 1497:** Rescue harnesses

**EN 1891:** Low stretch kernmantel ropes



# Classification of PPE

Personal Protective Equipment (PPE) is equipment worn, held by an individual for her/his protection against any type of risk (one or more hazards) during work. PPE in Europe is divided into three categories:

## Category I

### “SIMPLE DESIGN”

PPE designed to safeguard the user from minor physical injuries (gloves, shoes, etc.). The manufacturer declares conformity by means of an EC declaration of conformity only;

## Category II

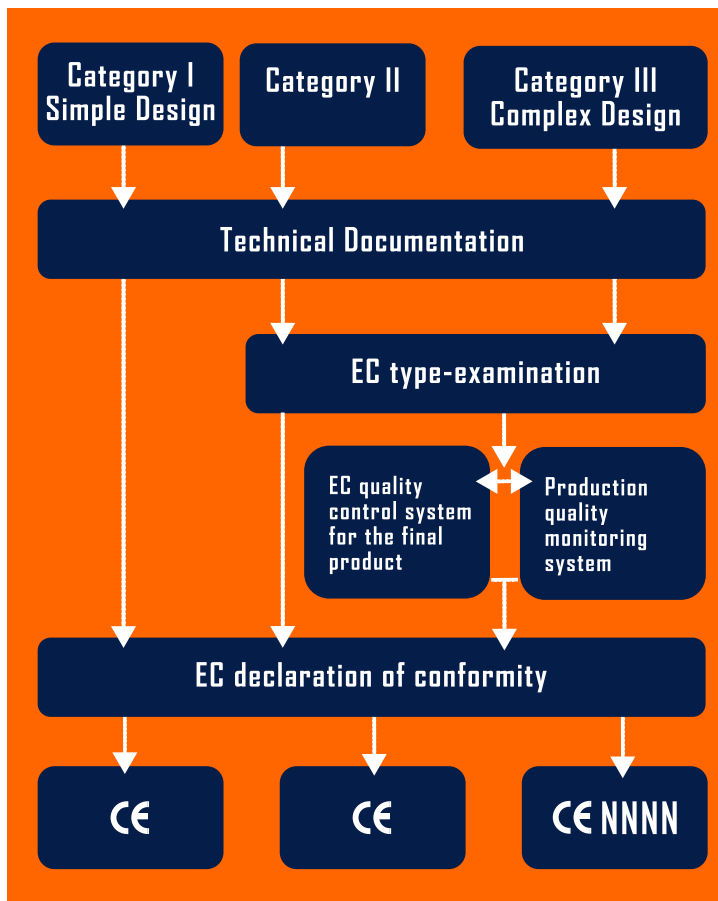
### NEITHER SIMPLE NOR COMPLEX

PPE designed to safeguard users from imminent grave danger (helmet, etc.) or damage that can result from long-term exposure (hearing protection, dust masks, etc.) are subject to an EC-type examination by a Notified Body and an EC declaration of conformity is then produced;

## Category-III

### SO-CALLED “COMPLEX DESIGN”

PPE designed to save users lives or prevent serious permanent injuries (harnesses, descenders, SRL, connectors, etc.) are subjected to EC-type examination and to one of the two Quality Assurance procedures. An EC declaration of conformity is produced.







# Risk Assessment

Risks Assessment relates to manage hazards while working at heights, depths, confined spaces, during rescue and evacuation in the workplace where people are working:

1. Identify hazards associated with your task; is a good starting point and vary according to specific hazards with different elements of tasks.



2. Assessing inherent risks for falls from heights; risk levels may be considered medium, high or extreme (potential falls from heights cannot be considered low risk).

Medium: minor injury requiring no more than first aid.

High: serious injury requiring medical attention.

Extreme: serious injury requiring hospitalization or even death.

3. Control measures managing fall hazards; do what is required for reasonably practicably to eliminate or minimise the risk of any hazard with the potential to cause harm
  - a) eliminate risk of a fall
  - b) use passive fall prevention device
  - c) use a work positioning system
  - d) use a fall arrest/confined entry/recovery/evacuation system
  - e) use administrative control
4. Approval for activity
5. Implementing, monitoring & reviewing controls



MPED450 Multiple Person *automatic* Controlled Descender  
- max. 450 m descent height.  
*See page 47*



# Height Safety, Confined Entry, Rescue & Evacuation Systems

Depending on the necessary freedom of movement and access to/from workplace while working at heights and depths, in confined spaces, during evacuation and rescue, specific safety solutions are available.

## Restraint system

Limits the freedom of movement of the user to prevent the individual gets into a fall hazardous area. Not designed to arrest a fall. Interesting question: how does a user get access and leaves this working area safely?

## Work Positioning system

Restricts the users freedom of movement at height. Often in combination with a height safety system. The user, positioned by a 'rope grab' device with in length adjustable lanyard, is then able to use one or both hands freely (also called "third hand" system).

## Fall Arrest system

Depending on the required freedom of movement can be classified in:

- a) **Stationary Fall Arrest systems**  
(Full Body) Harness with any 'connecting component' (lanyard) with limited length (up to 2 m) and integrated shock absorber. Interesting questions: What about adequate freedom of movement & how does a user reach and leaves this working area safely?
- b) **Horizontal Fall Arrest systems**  
Freedom of movement in the horizontal plane. Either permanent installed (frequent use) or temporary systems. Important: Minimum requirements object (structure) regarding (end anchor & intermediate) forces plus safety factors, number & mass users allowed, combined with other PPE in system, fall factor, dynamic sag, maximum span, number of users? Travelers fixed or detachable?
- c) **Vertical Fall Arrest systems**  
Offers freedom of movement in the vertical plane: temporary (Guided fall arrestor 'rope grab', SRL) or permanent (cable grip systems, rails). Travelers either manually, semi-automatic, automatic – fixed

or detachable, rolling parts or just sliding parts – spring activated for less free fall distance & force onto body or just based on gravity?

## d) **3-Dimensional Fall Arrest systems:**

For complete freedom of movement up to 3-dimensions in the X-, Y- & Z-axis. These optimum freedom of movement systems allow users to leave the safe place to workplace at height and still can work safely. Important to have all above mentioned and further height safety questions taken care of properly!

## Recovery systems:

Fall Arrest systems with integrated recovery element (winch, pulley-system) to get suspended users into a safe place by hoisting and/or lowering after a fall occurred.

## Rope Access systems:

Using temporary, suspended two-rope (working-rope + safety/fall arrest-rope) systems is a method for working at heights ('industrial climbing') by using ropes, climbing harnesses and other materials enabling access to working locations as an alternative for scaffolding, suspension bridge constructions and lifting platforms.

## Rescue systems:

System and method to search for, provision of aid and getting users to a safe place (also self-rescue) who are in distress or imminent danger due to a fall incident or in a confined space. Rescue systems are not to be considered PPE!

## Evacuation Systems:

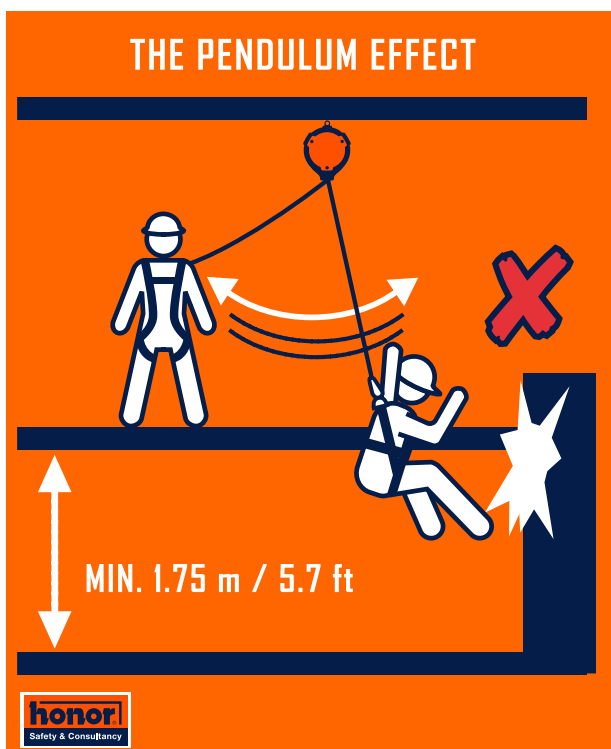
System to get away from a dangerous situation. A successful evacuation results in bringing people and animals into safe conditions: temporary systems (descent devices) or permanent systems (knotted rope, scramble nets, stairs).





## Fall Factor

The three fall factors in fall arrest (Factor 0, 1 or 2) relating to the position of the anchor point. They are used to determine the potential fall distance of a user and so ensure there is no risk of contact with the lower level (obstacles) in the event of a fall. When possible, the user should always use an anchor point at shoulder level or higher (Factor 1 or 0). A higher anchor point will reduce the fall distance and therefore significantly reduce the risk of injury on the body due to the impact forces of a fall.

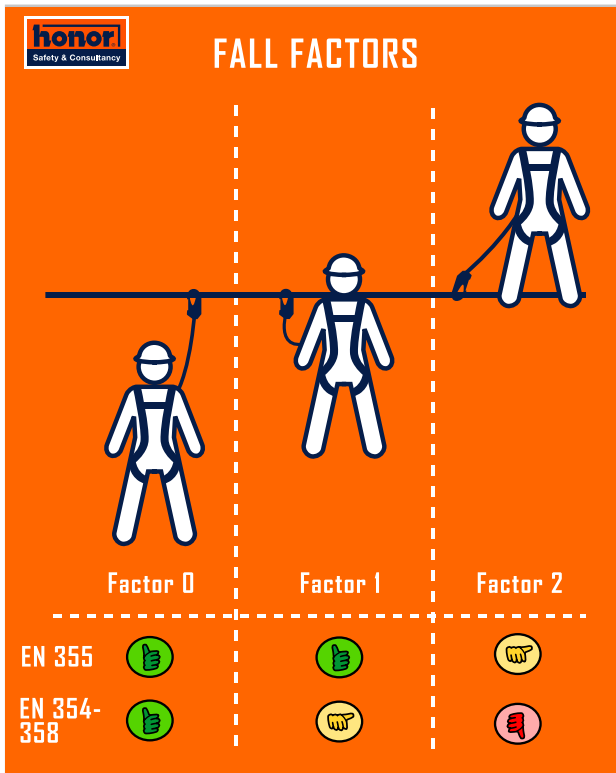


### THE PENDULUM EFFECT

When the lifeline is not anchored vertically over the workplace, the user will swing in the event of a fall and may be injured by hitting the ground or an obstacle to the side. If it is not possible to use an anchor point close to the work station, a 3-dimensional system or two anchor points either side of the user can be used to prevent any swing.

### FALL CLEARANCE CALCULATIONS

This is the distance a person will fall when connected to a fall arrest attachment (anchor) point. It is related to the Fall Factors (see Fall factor). Many situations can develop and it is ultimately the responsibility of the user to ensure that there is a suitable fall clearance available. In order to calculate this, the user must know the distances specified below, and it is also strongly recommended they attend a HONOR Fall protection training course.



### UNDERSTAND YOUR FALL FACTORS TO REDUCE THE RISKS!

#### FALL FACTOR 0

Anchor is overhead and the lanyard is taut between the anchor device and the user. The fall clearance is reduced as shown.

#### FALL FACTOR 1

Anchor device is at level or above the harness attachment point allowing a fall equivalent to the length of the lanyard before the energy absorber deploys to arrest the fall.

#### FALL FACTOR 2

Anchor device is at or below the feet of the user allowing a fall equivalent to twice the length of the lanyard before the energy absorber deploys to arrest the fall.

### Length of Connecting Subsystem (lanyard, rope-clamp, SRL)

- + Sag (dynamic) of horizontal system (e.g. HLL)
- + Extension Connecting Subsystem (SRL, slippage rope-clamp, fully activated energy absorber, etc.)
- + Body height from feet to harness attachment
- + Additional safety clearance

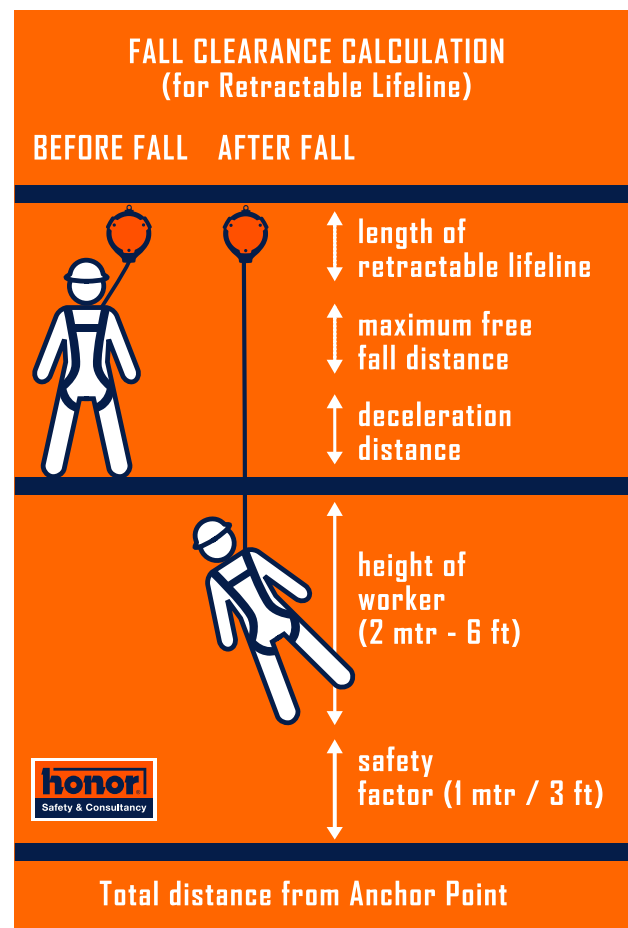
### Examples Lanyards

Calculations using the following length lanyards are as follows:

- **2 m lanyard: 2 m (lanyard length)**
  - + 1.75 m (energy absorber)
  - + 2 m (body height)
  - + 1 m safety = 6.75 m
- **1.5 m lanyard: 1.5 m (lanyard length)**
  - + 1.5 m (energy absorber)
  - + 2 m (body height)
  - + 1 m safety = 6 m

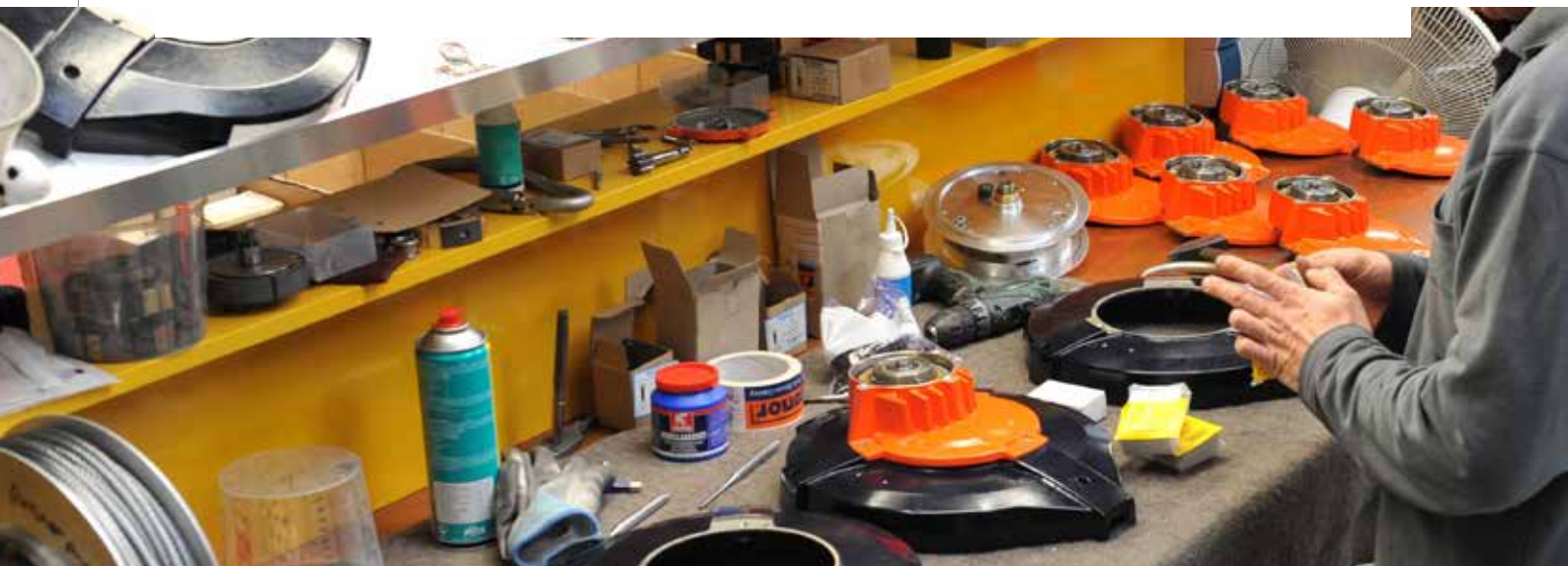
### Before fall and after fall

The calculation below gives the minimum vertical clearance required between the anchor point of the fall arrest system and the lower level.



### Self Retracting Lifelines reduce fall clearance < 3 m

A self-retracting lifeline (depending on quality of device used) can stop a fall in centimeters and therefore is the ideal solution for low-level work where a shock-absorbing lanyard is unable to stop the user from hitting an obstacle below. With the reduced Fall Arrest Distance the forces onto the body are much lower too!



## Definitions:

**Rescue equipment;** according to standards EN 1496, EN 1497 and EN 1498 is not considered to be PPE. This formal decision of the Standing Committee 89/392/EC (Commission Machinery Directive) creates problems in cases where equipment is also used as PPE. In these cases it shall be certified for the PPE-functions. It is considered to include rescue equipment in the revised PPE-Regulation, which is in preparation.

**Descender devices;** which can also be used for lifting persons are in addition covered by the Machinery Directive 2006/42/EC. This means that also an EC-type examination by a Notified Body under the Machinery Directive has to be carried out. This kind of equipment is mostly used for work in confined spaces (manholes), wind turbines, mountain rescue, etc.



Exceptions to the PPE-Regulation (e.g. armed forces and police) do not apply to firefighters. The equipment they use are PPE with regard to the Regulation. Depending on their nature, they have to be considered as Category-II or -III.

This is a very general view of the Commission and excludes all exceptions; for instance, the equipment used by the firefighters from a city or by firefighters from another city have to be in accordance with the PPE-Regulation.

**Components for PPE;** like rope clamps, trolleys on anchor lines or fall arrestors are to be considered and tested together with the whole PPE. Nevertheless they can be detachable and are also placed on the market as single elements. In latter cases it seems useful to have a CE-marking and instruction also on the component, provided the instruction gives clear requirements for the use in the completed PPE (description of the rope to be used, max. loads and load cycles, etc.). The opinion about this marking is unfortunately not uniform in all Member Countries.

**Anchor devices;** according EN 795 Type-A, C and D are not PPE. Any EC-type examination issued for these classes have to be withdrawn. This is an official decision of the EU-Commission.

**Arresting falls;** is the end result of the proper use of fall arrest equipment, such as personal protective equipment (fall arresting PPE), where there is sufficient clearance from lower level (structure, or any other obstacle).



**Energy absorber;** item or component of a fall arrest system designed to dissipate the kinetic energy developed during a fall from height.

**Restraint fall;** distance covered by the user, starting from the point where the fall arrest system takes the load up to the complete vertical point of arrest, with exclusion of oscillations.

**Free fall;** distance covered by the user under the action of gravity alone from the onset of the fall and just before the system begins to apply force to arrest the fall.

**Work positioning belt;** component that encircles the body, composed of elements that are arranged and mounted in an appropriate manner with a work positioning lanyard, supporting the user while working at heights and allowing him to work with both hands free. This component is not intended as a fall arrest component.

**Restraint belt;** component that encircles the body, composed of elements that are arranged and mounted in an appropriate manner with a restraint belt. Limits the horizontal movement of the user so that he/she may not reach a position from where he/she may fall from a height. This component is not intended as a fall arrest component.

**Connector;** connecting item or component of a fall arrest or restraint system.

**Lanyard;** connecting item or component of a fall arrest or restraint system. A lanyard can be composed of a synthetic fiber rope, a metal rope, a sling or a chain.

**Work positioning lanyard;** component used to connect a strap to an anchor device or a structure, encircling it to constitute a support device. This component is not intended as a fall arrest device.

**Retractable lanyard;** connecting item of a retractable type fall arrestor. Retractable lanyards can be made of a metal cable, webbing or synthetic fiber rope and their length can be more than 2 meter.

**Guided fall arrestor;** fall arrestor equipped with a self-locking and guided system. Guided type fall arrestors travel along an anchor line, without requiring manual adjustment by the user, when ascending or descending. In the event of a fall, it locks automatically onto the anchor line.

**Retractable fall arrestor;** fall arrestor device equipped with a self-locking, automatic tensioning and lanyard

recovery systems, i.e. of the retractable lanyard. An energy dissipater (fall arrest brake) can be integrated in the device itself or an energy absorber can be added to the retractable lanyard.

**Recovery device;** fall arrest device but with integrated recovery winch to hoist or lower the user.

**Self-Retractable Descender;** Descending device with an integrated descent brake to lower the user automatically after a fall incident or during evacuation. Most common SRD's just lower the user (descent devices) but are not approved for fall arrest. Fall arrest descenders have to be approved according EN 360 and EN 341!

**Man Riding Winch;** winch specially designed for personnel lifting and lowering applications in which a safety harness or Bosuns' Chair is used on installations with a maximum WLL of 150 kg. Man Riding Winches need approval according Machinery Directive 2006/42/EC and EN 1808!

**Full Body Harness;** support for the body whose primary aim is to arrest a fall and is an essential component of a fall arrest system. Full body harnesses may comprise webbing, accessories, buckles or other elements suitably arranged or fitted to support the whole body of a person while falling and after a fall. A right designed harness diverts the forces to the right places of the body instead the weak and vulnerable parts. When choosing a harness it is necessary to consider some essential factors such as max. allowed bodyweight, functions needed, etc. Depending on the harness functions it will have to be separately approved as such (fall arrest, work positioning, rescue, etc.)

**Evacuate;** the planned method meant to get away from a dangerous situation. A successful evacuation results in bringing people and animals into safe conditions.

**Escape;** the process to leave the dangerous position by using any escape tool.

**Personal Rescue;** the process (systems and techniques) for the recovery of users who may be injured or trapped in difficult positions and where medical assistance is present. Time is critical.

# STAR-series® Range & Modules

Modular sub-assembly design for easy service, maintenance, repair and short downtimes.

This complete STAR-series range comprises:

- Fall Arrest Blocks (SRL)
- Recovery Devices
- Self Retractable Descenders
- Evacuation Devices
- Rescue Devices
- Man Riding Winches
- Load Arrestors
- Auto Belay (Climbing Wall Descenders)

These industrial designed devices have a modular build up (at HONOR we strive after optimum safe products and also like product design. Also well designed safety products give users more confidence in the PPE they use!).



STAR-series® range of devices are acknowledged as "Good Industrial Design" during the prestigious Dutch Design Week. Assessed on its unique modular design and proven high technical quality!

Using modular sub-assemblies offer end-users many advantages such as: easy operation, user friendliness, short maintenance and service downtime, etc.

Other goals for our mechanical engineers were reliability, durability and low Total Costs of Ownership. This is why the best (virgin) materials, technical design, size tolerances and finishing were chosen.





Modular Pre-Set Fall Arrest Brake



Modular Recovery Winch



Modular Automatic Descent Brake

**Highlights**

- Modular designed sub-assemblies & (internal) parts
- (virgin) Materials
- High corrosive resistant (internal) parts
- Professional industrial gearings
- Designed in the Netherlands
- Manufactured and assembled in the Netherlands by ISO- 9001 Quality Management System certified company



Easy activating and de-activating Recovery Winch by just turning the knob



Modular Gearing; designed according international engineering standards and hardened.

MRW15

MRW33

CWD9

CWD16

CWD20 SPEED

LA15/300

LA33/300

LA15/500

LAD33/200

LAW33/250







A worker in a red safety suit and white helmet is climbing a long, steep, metal staircase on a large industrial structure. The staircase is made of metal and has a complex, lattice-like structure. The worker is positioned in the middle of the staircase, facing upwards. The background is a large, dark, curved surface, likely the side of a ship or a large industrial tank. The sky is overcast and grey. The overall scene is one of a high-altitude industrial environment.

## Height Safety:

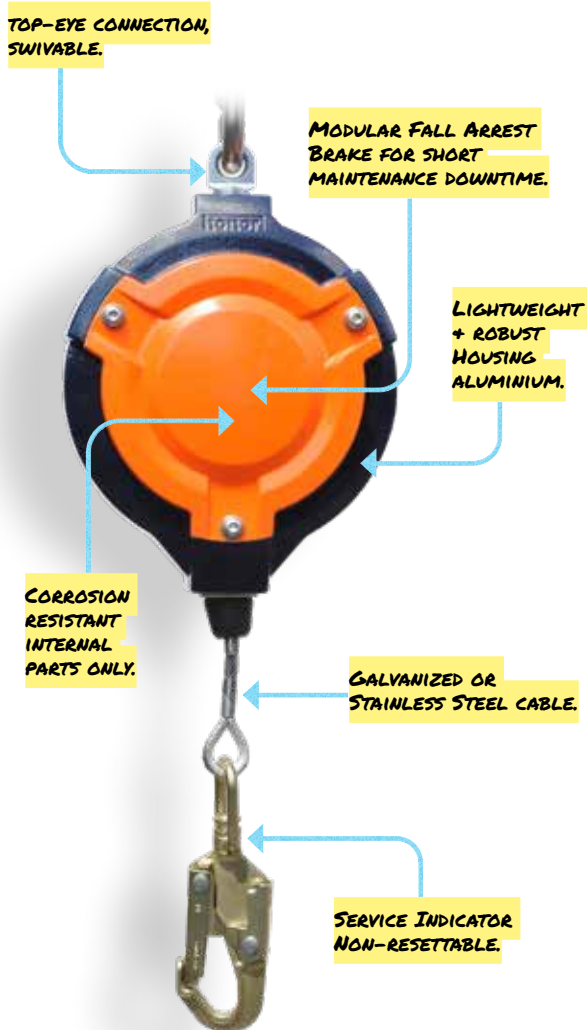
Vertical fall arrest devices/systems



# STAR<sup>®</sup>-series **FAB15**

## Self-Retractable Lifeline (SRL) 15 meter

The FAB15 offers up to 15 meters freedom of movement to the user and limits braking distance and fall arrest forces to a minimum in case of a fall.



FAB15 devices are available with galvanized and stainless steel wire ropes.

### Specifications FAB15-G & -S:

- Modular quick-response fall arrest brake
- Minimum fall arrest distance (braking distance)
- Very low occurring fall forces
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized or stainless steel
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Cable length: max. 15 meter (49 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 9.6 kg (15.2 lbs)
- Very low examination & inspection costs
- Ergonomic designed handle (optional);
- STAR-series<sup>®</sup> industrial design

European standard: [EN 360:2002](#)  
 US-Standard: [ANSI/ASSE, Z359.4-2012-A](#), pending

**Art.no.: R011.015.000** FAB15-G (Galvanized Wire)

**Art.no.: R011.015.001** FAB15-S (Stainless Steel Wire)

European patent no: [002503698-001](#)  
 USA Patent: [23-0825-0576900](#)

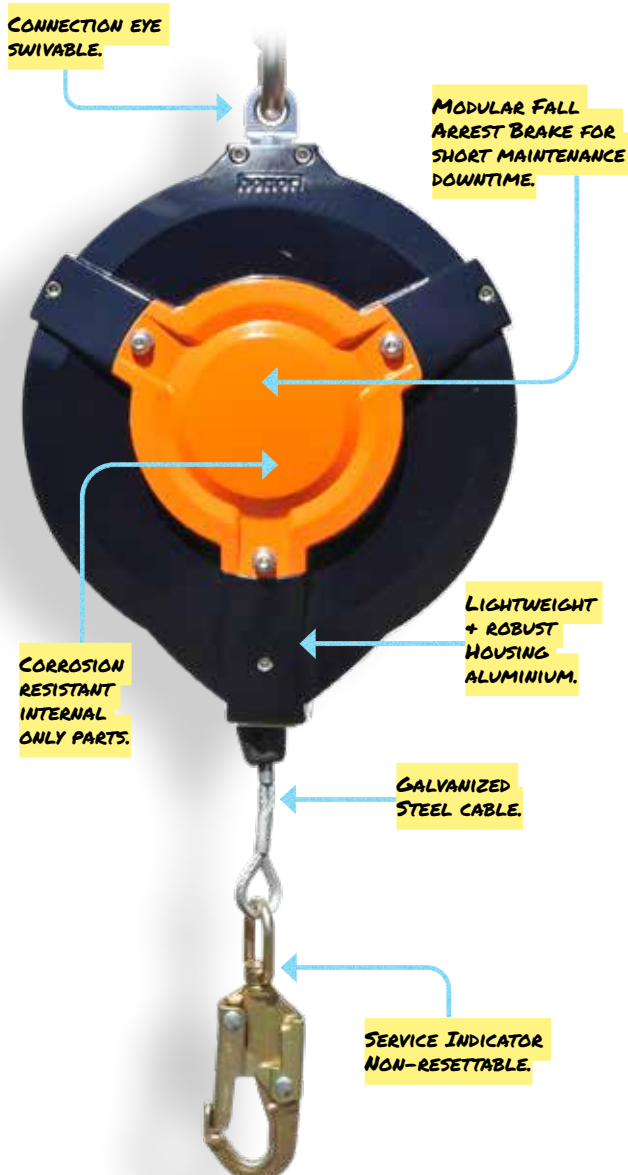




# STAR®-series FAB33

## Self-Retractable Lifeline (SRL) 33 meter

The FAB33 offers 33 meters freedom of movement to the user and limits braking distance and fall arrest forces to a minimum in case of a fall.



FAB33 devices are available with galvanized steel wire rope.

### Specifications FAB33:

- Modular quick-response fall arrest brake
- Minimum fall arrest distance (braking distance)
- Very low occurring fall forces
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Cable length: max. 33 meter (108 ft)
- Capacity: max. 132 kg (291 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 18.7 kg (41.2 lbs)
- Very low examination & inspection costs
- Ergonomic designed handle (optional);
- STAR-series® industrial design

European standard: [EN 360:2002](#)

US-Standard: [ANSI/ASSE Z359.4-2012-A](#), pending

Art.no.: **R011.033.000** (FAB33)

European patent no: [002503698-001](#)

USA Patent: [23-0825-0576900](#)



# STAR<sup>®</sup>-series **FAB15R**

## Recovery Block (SRL) 15 meter

The FAB15R device adds an integrated manual recovery function to the standard fall arrest device, lifting or lowering the user to a safe place after an incident.



### Specifications FAB15R-G & -S:

Available with stainless steel and galvanized wire ropes.

- Modular quick-response fall arrest brake
- Minimum fall arrest distance (braking distance)
- Very low occurring fall forces
- Modular recovery winch
- Very low winch-force needed to raise or lower the user
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized or stainless steel
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Cable length: max. 15 meter (49 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 10.5 kg (23 lbs)
- Very low examination & inspection costs
- Ergonomic designed handle (optional);
- STAR-series<sup>®</sup> industrial design

European standards: [EN 360:2002](#), [EN 1496:2006](#)

Machine Directory: [MD2006/42/EC](#)

US-Standard: [Z359.14-2012-A](#), pending

**Art.no.: R011.015.100** FAB15R-G (Galvanized Wire)

**Art.no.: R011.015.101** FAB15R-S (Stainless Steel Wire)

European patent no: [002503698-001](#)

USA Patent: [23-0825-0576900](#)



# STAR®-series FAB33R

## Recovery Block (SRL) 33 meter

The FAB33R devices with integrated manual recovery function are multi-function blocks and can be combined with HONORope® HLL fall arrest systems, tripod, TwinSleeve® davit, FlangeClamp® or TankClamp® for confined entry and rescue.



### Specifications FAB33R:

Available with galvanized wire rope.

- Modular quick-response fall arrest brake
- Minimum fall arrest distance (braking distance)
- Very low occurring fall forces
- Modular recovery winch
- Very low winch-force needed to raise or lower the user
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Cable length: max. 33 meter (108 ft)
- Capacity: max. 132 kg (291 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 19.6 kg (3 lbs)
- Very low examination & inspection costs
- Ergonomic designed handle (optional);
- STAR-series® industrial design

European standards: EN 360:2002, EN 1496:2006  
Machine Directory: MD2006/42/EC  
US-Standard: Z359.14-2012-A, pending

Art.no.: R011.033.100 (FAB33R)

European patent no: 002503698-001  
USA Patent: 23-0825-0576900





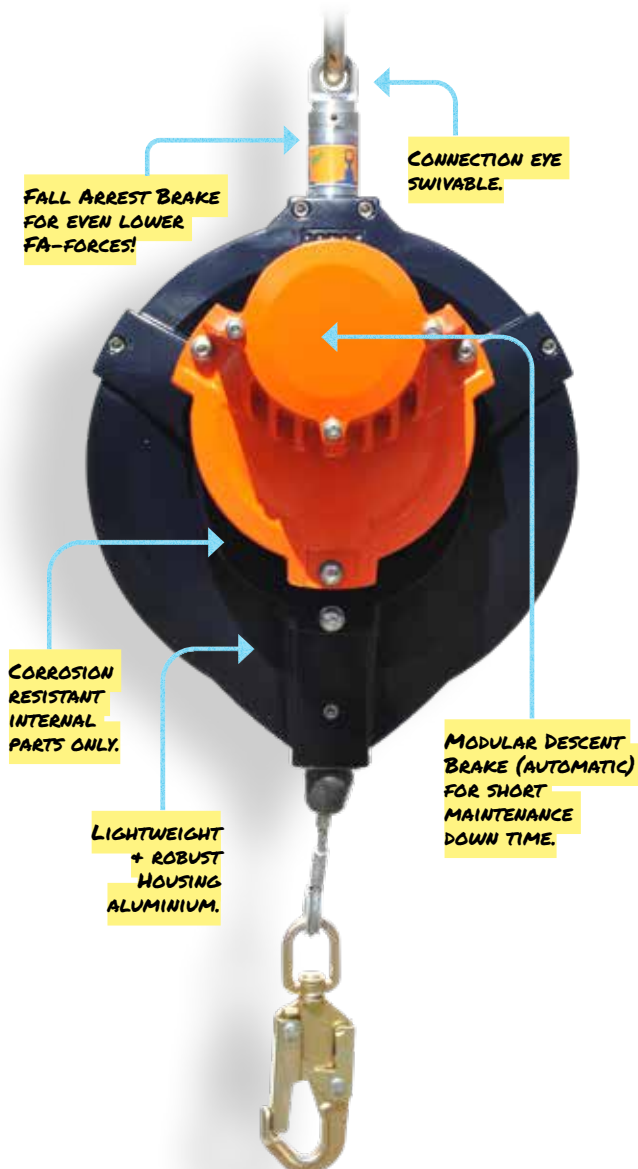
# STAR®-series **FPED15**

## Fall Arrest Descender Devices (automatic SRL) 15 meter

The FPED15 offers 15 meters freedom of movement and lowers the user automatically due to its integrated descent brake after a fall.



This unique fall arrestor and descender combination is a very important feature in case both fall arrest and self rescue functions are needed. FPED15 devices are available with galvanized steel wire ropes.



### Specifications FPED15:

- Modular automatic descent-brake
- Descent speed: appr. 1.0 m/s (150 kg)
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Descent height: max. 15 meter (49 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 18.7 kg (41.2 lbs)
- Very low examination & inspection costs
- STAR-series® industrial design
- Very low occurring fall forces

European standards: [EN 360:2002](#), [EN 341:2011/1C](#)  
US-Standard: [Z359.14-2012-A](#), pending

Art.no.: **R012.015.100** (FPED15)

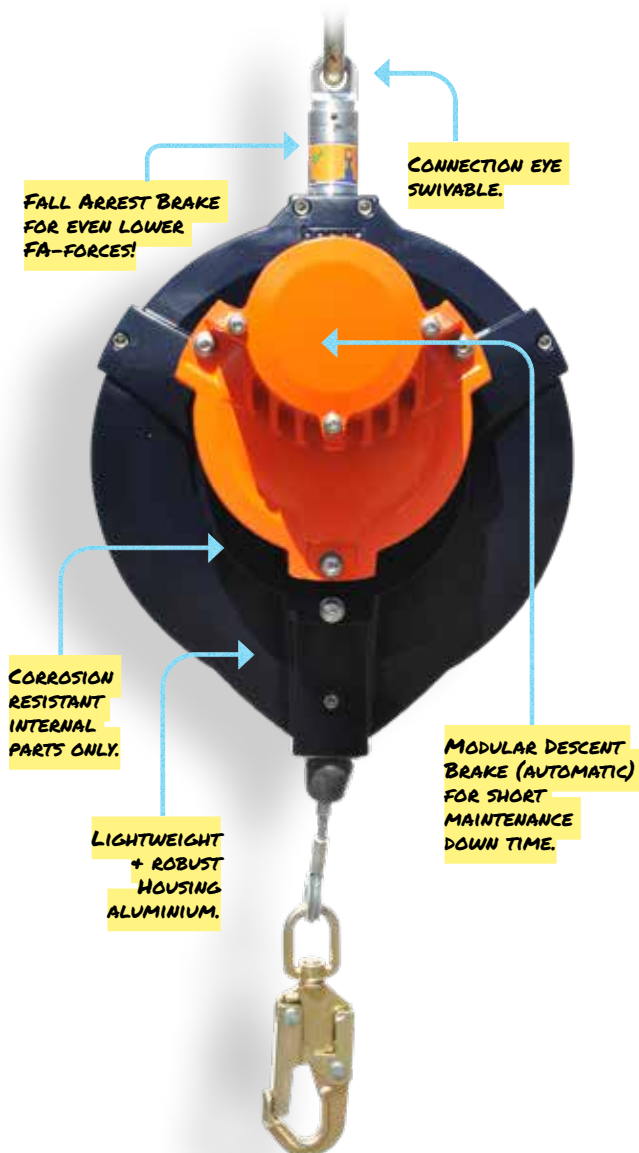
European patent no: [002503698-001](#)  
USA Patent: [23-0825-0576900](#)



# STAR®-series FPED33

## Fall Arrest Descender Devices (automatic SRL) 33 meter

The FPED33 offers 33 meters freedom of movement and lowers the user automatically due to its integrated descent brake after a fall.



This unique fall arrestor and descender combination is a very important feature in case both fall arrest and self rescue functions are needed. FPED33 devices are available with galvanized steel wire ropes.

### Specifications FPED33:

- Modular automatic descent-brake
- Descent speed: appr. 1.0 m/s (150 kg)
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Snap-Hook with non-resettable 'Service indicator'
- Swivable connection eye
- Descent height: max. 33 meter (108 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 20.9 kg (46.1 lbs)
- Very low examination & inspection costs
- STAR-series® industrial design
- Very low occurring fall forces

European standards: EN 360:2002, EN 341:2011/1C  
US-Standard: Z359.14-2012-A, pending

Art.no.: R012.033.100 (FPED33)

European patent no: 002503698-001  
USA Patent: 23-0825-0576900









# HONORail®-8800

## Vertical Rail Fall Arrest System Galvanized & Stainless Steel

### HONORail®-8800 Vertical Rail Fall Arrest system

The HONORail-8800 system is a ridged vertical mounted rail, on which a trolley automatically follows the worker smoothly while moving up and down a ladder. The trolley can be inserted in the HONORail-8800 through the Bottom and Top Entry Gates. If the worker would trip and fall, the trolley is instantly activated and arrests the fall within centimeters. With the HONORail-8800 the worker can cover great heights (for example cage ladders) while taking breaks during climbing by taking his hands of the rungs and relax.

The HONORail-8800 is a vertical fall protection system, often mounted on (caged) ladders and other risky objects. No resolving parts so almost maintenance free.

Trolley made of anodized aluminium with thermoplastic polyester (P.E.T.P.) gliders. The arresting grip is made of powder coated steel. Every trolley is supplied with a shock absorbing lanyard and carabiner to attach the trolley to the safety harness. The total weight of the trolley complete with shock absorber and carabiner is less than 800 grams.



Every rail system is fitted with hand operated entry and exit securities. Also an Extension Bracket can be mounted on the top end of the rail to extend the rail from a manhole, surface level or to enter a roof.

The HONORail-8800 system is available in galvanized steel (EN ISO-1461) or Stainless Steel (marine grade 316 S-31), supplied in section lengths of three meters and is adaptable to fit every object.

*The HONORail-8800 system is approved according European Standard EN-353-1:2014 & passed additional tests in accordance within the HSE alert by TÜV NEL (East Kilbride – UK) in November 2007!*



Regulation (EU) 2016/425  
European standard: EN 353-1:2014  
TÜV NEL (UK) HSE alert (nov 2007!)

**Art.no.: R010.801.001** HONORail -8800 Galvanized  
**Art.no.: R010.801.101** HONORail-8800 SS 316





## Height Safety:

Horizontal Lifeline Systems (HLL)



# Temporary Horizontal Lifeline Systems





# HONORope®-T

## Temporary Horizontal Life Line (HLL); rapidly to install system

In many different situations while working at heights a permanent installed HLL is not necessary or too costly. Than a quick and easy to install temporary HLL is ideal.

Even more so because several types of fall arrest devices (lanyards, Inertia Reels, Recovery blocks and even descent devices) can be combined with this system. HONORope-T is designed as a temporary up to 3-dimensional HLL!

### HONORope-T contains the following components:

- 1 25 meter (82 ft) Kernmantle Rope (special construction),
- 2 HoPress® eyelet at one end,
- 3 Rope Vice Tensioner (RVT), Stainless Steel, for rapid tensioning.

### Technical Specifications

- Maximum Span: 25 meter (82 ft)
- Maximum number Workers on system: 5
- Maximum End Anchor Load: 7,7 kN
- Sheath core rope; 16 mm
- Eyelet (1x): HoPress 16 mm.
- Rope Vice Tensioner (1x), SS, 16 mm,

*Comes as a complete kit!*



The HONORope-T to be connected with carabiners (min. SWL >20 kN) to the (structural) anchor points. The Rope Vice Tensioner with the tensioning tool provides the right amount of (pre)tension in the HONORope-T system.



This HLL can be used together with STAR-series® SRL's, recovery blocks & descent devices and lanyards.

### HONORope-T

European standards: [EN 795:2012 Type-B and Type-C](#)

### HONORope-T

Art.no.: **R010.330.007** (HONORope-T)

### Accessories:

Art.no.: **R010.330.008** Tension Bar (RVT), SS;

Art.no.: **R010.210.011** Trolley, one hole;

Art.no.: **R010.210.012** Trolley, two holes;

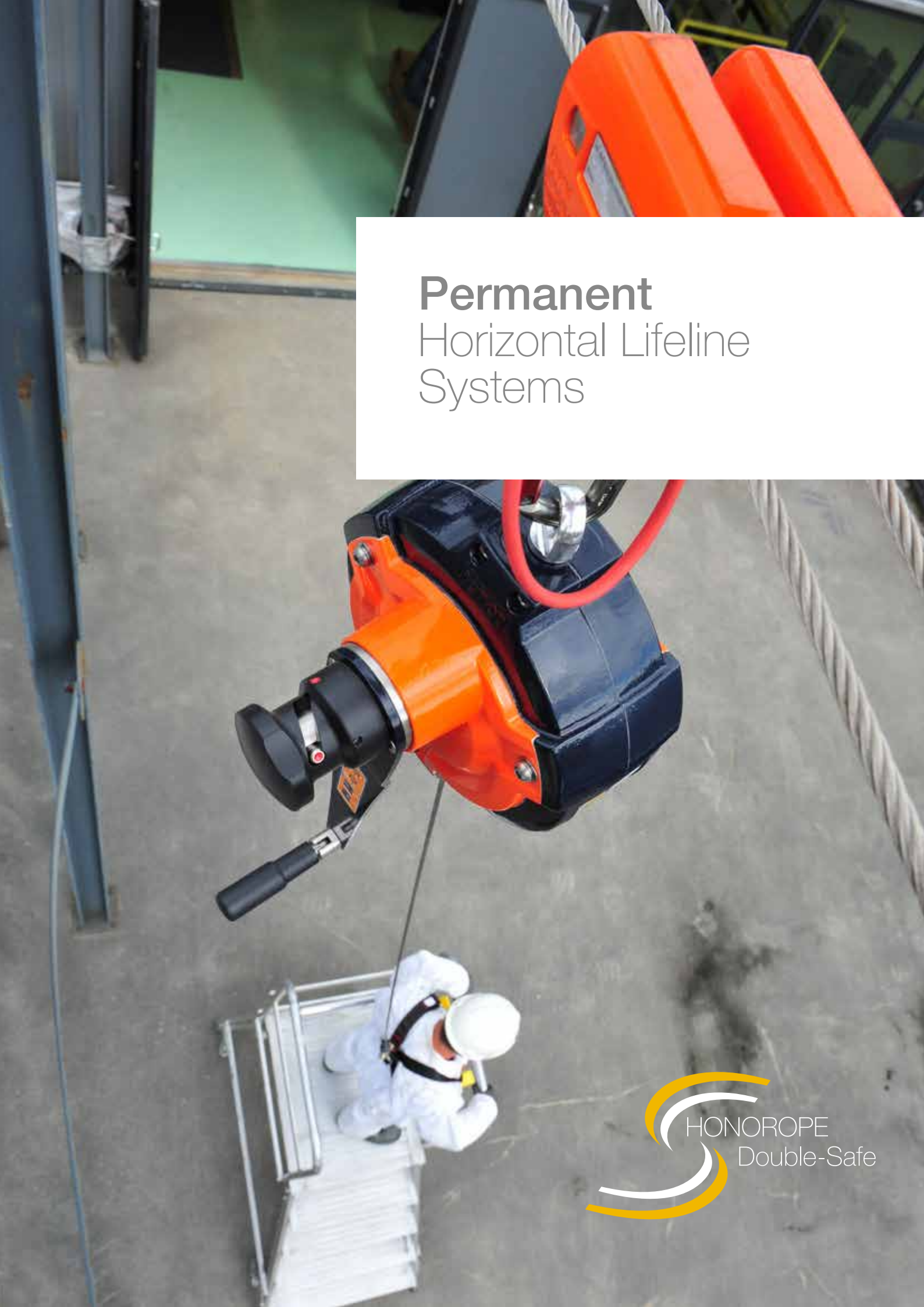
Art.no.: **R024.008.001** Carabiner A823,

Kwiklock (trolley);

Art.no.: **R024.008.005** Scaffold hook (2x), Kwiklock, type C734;

Art.no.: **R030.306.000** Bag, ready to use kit bag;





# Permanent Horizontal Lifeline Systems







# HONORope® Double-Safe part 1 (of 3)

## Horizontal (permanently installed) double cable fall protection system. Freedom of movement in up to 3 dimensions.

HONORope Double-Safe horizontal life line (HLL) system for large system lengths to resolve limitations of existing HLL and rail systems.

### Safety and optimization freedom of movement

The system is approved up to 5 users, limitless system lengths and 30 meters intermediate span, suitable for horizontal use and inclined slopes (up to 15 degrees)! Combined with retractable fall arrestors (SRL), recovery blocks or height safety descender-devices, this system offers safe freedom of movement in up to three dimensions, including corners, without the need to detach and re-attach while changing directions or crossing cable supports and bends!

A unique and in Europe and the North Americas patented fall arrest system that keeps users safe while working at heights.

### Applications

The HONORope Double-Safe system can be installed onto steel structures, concrete, masonry and other structures. When installed on e.g. (truck) loading stations, walkways, roofs, hangars, conveyors, (gantry) cranes HONORope Double-Safe provides maximum safety and optimum freedom of movement while keeping your operational costs to the absolute minimum.

### Forces on the structures

The object to which the system must be attached very often is already there or has to be engineered. Due to the system's design very low forces in the end-anchors and intermediate anchors of the HONORope Double-Safe system keeps the costs down.

The design of the Low-Impact Energy Absorber and shock absorbing Intermediate Brackets in the HONORope Double-Safe system reduces the occurring forces to the absolute



minimum. Specific customers' requirements, the freedom of movement needed, possible dangers like free fall distances and forces, structure strength, etc. can all be solved in the system design.

### Double wires = double safety

The system design of two parallel stainless steel wires bring many unique advantages: Forces divided over two cables means less wire elongation and sag (vertical displacement), better Trolley stability for smooth passage of intermediates and corner units – even with heavy (>25 kg) recovery blocks – and up to 30 m sub-span is makes it possible to install this system on any existing structure while reducing component and installation costs too! Finally: double safety (min. Breaking Strength > 66 kN - should one cable break the systems stays intact).

### Energy Absorbing Intermediates

Are developed for very low end-anchor forces and so the use of this system is much less depending on the structure. Designed to deform in response to a fall it reduces the impact (force) onto the structure in case a fall occurs. Practice and testing has shown cable wear and tear is brought by wire/intermediate steel-to-steel-contact. Therefor 'Floating Cable' is integrated!



# HONORope® Double-Safe part 2 (of 3)



*Deformed Intermediate Bracket*

## Trolley

The industrial designed Trolley forms the heart of the system and rolls, instead of sliding, over the system offering many advantages to the users. No wear and tear or problems with dirt, ice, snow. It smoothly passes intermediates and bends even in combination with large fall arrest blocks! Users have hands free together with optimum user friendly mobility to be able to concentrate on their jobs! Trolley moves with the user smoothly so is above the head so no swing fall hazards, even with large heights between system & users.

## Corner Unit

Due to the precision designed stainless steel corner unit the HONORope Double-Safe system offers the user maximum freedom of movement and flexibility in a variety of situations where bends are necessary. 'Floating Cable System' is also integrated in these corner units!

The trolley design makes it possible to attach and detach from the life line in any desired position or location along the system.



## Life Line Tension Indicators

Are installed to insure the right life line tension and also providing quick and easy tension checks during inspections.



*Life Line Tension Indicator for each cable, with Pitchfork, Tensioners & (plastic) Cable Spreader*

## Low Impact Energy Absorber

The end anchor forces are further reduced by the Low-Impact Energy Absorber to less than 15 kN (at maximum number users & sub-spans lengths)!



*Low impact energy absorber*

## System benefits

- Great independence from existing structures and low new to install structure costs due to Energy Absorbing Intermediates in series with Low Impact Energy Absorber - reduces dynamic forces in end anchors to <15 kN
- Only HLL system to be combined with large fall arrest devices
- Intermediate spans up to 30 meters
- Floating Cables, so no cable/bracket contact to prevent wire cut



# HONORope® Double-Safe part 3 (of 3)

- Double cables (2x 8 mm SS) = double safety (minimum breaking strength 66,8 kN)
- Lowest vertical deflection (sag) = safer – reduced chance injuries caused by obstacles & (dynamic) fall arrest forces
- Less intermediate brackets needed (sub-span 30 m) and therefore less dependent on existing objects/structures & lower installation costs
- The system will, in case of a fall descends the worker gently and calmly and so minimize the risk of injury. Achieved thanks to the patented design with energy-absorbing intermediate fixings.
- The system is designed as an Automatic Horizontal Fall Arrest system (AHFA) that offers enormous freedom of movement in 3-dimensions.
- Trolley (24 kN strong) rolls over cables, designed to carry large weights (SRL) without jamming, wear & tear or problems by dirt, ice, snow
- Patented in: USA, CA, UK, GE, NL



## Reference's



Overhead Cranes



(truck) Loading platforms

## Specifications:

- Max. number users: 5
- Max. sub-span: 30 meters
- Max. force End-Anchors = 15 kN
- Max. force Intermediates = 6 kN

European standard: [EN 795:2012](#)  
Type-C Patented in: [UK, DE, USA, CA and NL](#)

## HONORope Double-Safe

Art.no.: R010.332.001 HONORope-Double-Safe

## Components:

- Art.no.: R010.332.010 Lifeline; twin steel wire, 8 mm, SS
- Art.no.: R060.009.108 Hopress Eye – Lifeline 8 mm
- Art.no.: R010.332.011 Cable Clamp, SS
- Art.no.: R010.332.013 Pitchfork, SS
- Art.no.: R010.332.012 Cable Spreader
- Art.no.: R010.332.002 End Anchor, variable cable side,
- Art.no.: R010.332.003 End Anchor Tensioner, SS
- Art.no.: R010.332.014 Lifeline Tension Indicator, SS
- Art.no.: R010.332.012 Low Impact Energy Absorber, SS
- Art.no.: R010.331.004 Energy Absorbing Intermediate Bracket, SS
- Art.no.: R010.332.015 Corner Unit 90°, SS
- Art.no.: R010.331.010 Trolley, aluminium
- Art.no.: R010.331.005 End Anchor Post >30 kN
- Art.no.: R010.331.006 Intermediate Anchor Post >15 kN
- Art.no.: R010.332.020 Mounting Plate End Anchor >30 kN
- Art.no.: R010.332.021 Mounting Plate Intermediate Bracket >15 kN





**Height safety**  
inclined surfaces



# HONORoof-Safety®

## Temporary Inclined Surfaces system according PPE Regulation 2016/425

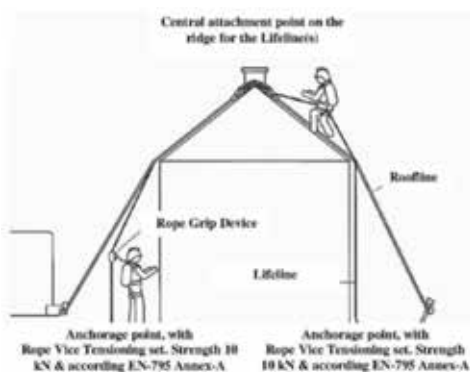
The HONORoof®-Safety Fall Arrest System is developed for use on inclined surfaces.

Also by Fire Services and in rescue situations where it isn't possible to use standard firefighting equipment such as a platform.

This system can be deployed from ground level and is easy to use. The system as a whole has overall approval according PPE Regulation (EU) 2016/425.

The HONORoof-Safety, as a system, enables the users to work safely at heights on inclined objects where (structural) anchor points are not available. Each user needs a HONORoof-kit. The system is approved for max. 3 users for: 1) fall protection, 2) work positioning, 3) restraint, 4) protection during rescue operations. It allows users to go from ground level to heights (roofs, other objects) and back again safely and protects them from: 1) climbing falls (down & backwards), 2) through standing surfaces, 3) over edges.

The Roof-Rope with Ridge Chain in the middle is installed over the ridge of an object (by Throwing Line) and forms the



Anchor. Central at the (highest available) anchor point for max. 3 Lifelines (users) on the object. Thereafter the Roof-Rope will be tensioned at the front and back side of the object with the Rope Vice Tensioners. Every user connects to a separate Lifeline with his Automatic Rope Grip Device (attached to his safety-harness), which moves along with the user. In case of a fall the Rope Grip Device will block and arrest the user.

**Installation time:**  
within 5-7 minutes!

### Components Roof-Rope set

- 1 x Throwing Line (50 m) plus Ball
- 2 x 25 m Kernmantle Rope (16 mm)
- 1 x Ridge Chain with Central Eyelet
- 2 x Rope Vice Tensioners
- 2 pear shaped Scaffold hooks type C734



### HONORoof-kit – each/ user (max.: 3/system):

- 1 x Lifeline (L=20 m, diam. 12 mm), braided construction,
- 1 x Rope Grip Device type AH-3, automatic, SS

### Accessories:

- Ground Anchor
- Sling 2 m
- Harness type FBH-60 (M, L, XL)
- Jacket Harness type JH-BRW (M, L, XL, XXL)



European standards: [EN 363](#), [EN 795](#), [EN 353-2](#), [EN 358](#), [EN 354](#), [EN 353-2](#)

**Art.no.: R010.330.004** HONORoof-Safety system  
**Art.no.: R010.330.003** User kit HONORoof-Safety







## Rescue + evacuation

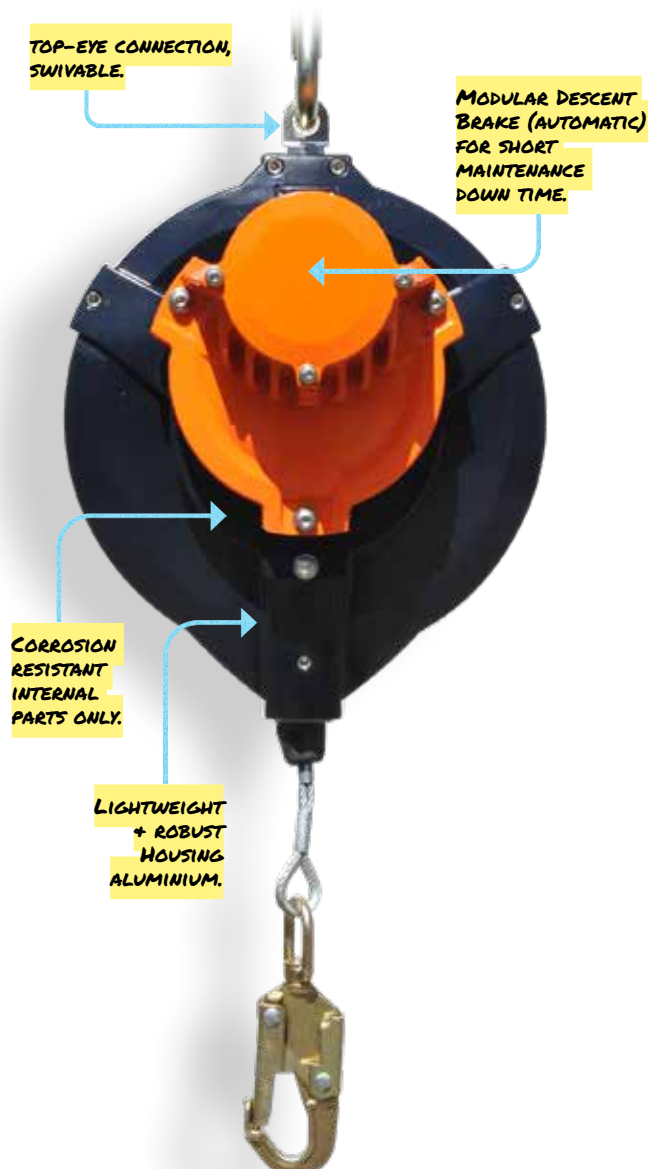
escape and evacuation,  
confined entry and  
rescue solutions



# STAR®-series PED15

## Self Retractable Descender 15 meter

The PED15 offers 15 meters freedom of movement to the user and let the user descend automatically thanks to the integrated descent brake.



This unique descender is a very important if self rescue is needed. PED15 devices are available with galvanized steel wire ropes.

### Specifications PED15:

- Modular automatic descent-brake
- Descent speed: appr. 1.0 m/s (150 kg)
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Swivable connection eye
- Descent height: max. 15 meter (49 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 18.7 kg (41.2 lbs)
- Very low examination & inspection costs
- STAR-series® industrial design

European standard: [EN 341:2011/1C](#)  
 US-Standard: [Z359.14-2012-A](#), pending

**Art.no.: R012.015.110 PED15**

European patent no: [002503698-001](#)  
 USA Patent: [23-0825-0576900](#)





# STAR®-series PED33

## Self Retractable Descender 33 meter

The PED33 for quick safe evacuations from maximum 33 meters heights. Lets the user descend automatically thanks to the integrated descent brake.



TOP-EYE CONNECTION, SWIVABLE.

MODULAR DESCENT BRAKE (AUTOMATIC) FOR SHORT MAINTENANCE DOWN TIME.

CORROSION RESISTANT INTERNAL PARTS ONLY.

LIGHTWEIGHT + ROBUST HOUSING ALUMINIUM.



PED33 devices are available with galvanized steel wire rope.

### Specifications PED33:

- Modular automatic descent-brake
- Descent speed: appr. 1.0 m/s (150 kg)
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Cable: 5mm galvanized
- Swivable connection eye
- Descent height: max. 33 meter (108 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 20.9 kg (41.2 lbs)
- Very low examination & inspection costs
- STAR-series® industrial design

European standard: [EN 341:2011/1C](#)  
US-Standard: [Z359.14-2012-A](#), pending

Art.no.: **R012.033.110** PED33

European patent no: [002503698-001](#)  
USA Patent: [23-0825-0576900](#)





# STAR<sup>®</sup>-series MOD450

## Multiple Person Descent & Rescue (lifting) Device (max. 450 m descent height)

The MOD450 has an integrated automatic descent module and recovery winch (lifting & lowering) and is an ideal device to escape from heights and recover victims from steep slopes, heights and confined spaces.



This multi-functional rescue/descent device is even more useful when combined with a Tripod or Davit.



### Specifications MOD450:

- Modular automatic descent-brake
- Descent speed: appr. 0.6 m/s (100 kg)
- Modular integrated manual rescue winch
- Very low winch force (< 10 daN) needed to lift users/victims
- Descent & Lifting height:
  - Max. 450 m – 1480 ft descent height
- Lifeline: Sheath core (Kernmantel) rope (orange/blue), 9.5 mm – EN 1891 Type-A
- Capacity: - Max. load 200 kg - 441 lbs
  - Min. load 60 kg - 132 lbs
- Temperature range: - min. -10°C, max. 55°C
  - min. 14°F, max. 130°F
- Swivable connection eye
- Weight: 11.6 kg (25.6 lbs, rope excl.)
- Very low examination & inspection costs
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- STAR-series<sup>®</sup> industrial design

European standards: EN 341:2011/1A, EN 1496  
 Machine Directory: 2006/42/EC  
 US-Standard: Z359.14-2012-A, pending

Art.no.: R013.400.000 MOD450 device  
 Art.no.: R060.009.010 Sheath core rope (Kernmantel))

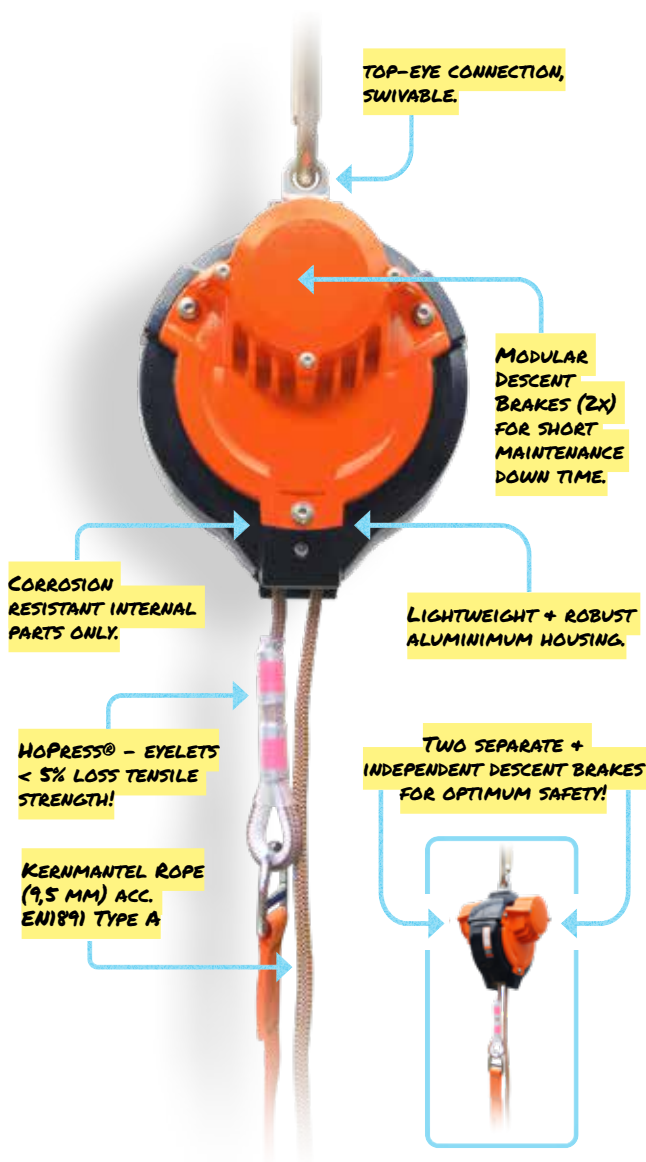
European patent no: 002503698-001  
 USA Patent: 23-0825-0576900



# STAR<sup>®</sup>-series MPED450

## Multiple Person (automatic) Controlled Descender (max. 450 m descent height)

The MPED450 - self-contained - multiple person evacuation device lowers evacuees to a point of safety. Each device has 2 (!) independent descent brakes (primary and secondary) to guarantee extra safety!



### Specifications MPED450:

- Modular automatic descent-brake
- Descent speed: appr. 1.2 m/s (150 kg)
- Two independent, modular, automatic descent-brakes for extra safety
- Descent: max. 450 m – 1480 ft
- Lifeline: Sheath core (Kernmantel) rope (orange/blue), 9.5 mm – EN 1891 Type-A
- Capacity:
  - max. load 150 kg - 331 lbs
  - Min. load 30 kg - 66 lbs
- Temperature range:
  - min. -10°C, max. 55°C
  - min. 14°F, max. 130°F
- Weight: 11.1 kg (24.5 lbs, rope excl.)
- Swivable connection eye
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Very low examination & inspection costs
- STAR-series<sup>®</sup> industrial design

European standard: EN 341:2011/1A, automatic Type-A  
US-Standard: Z359.14-2012-A, pending

Art.no.: R013.150.000 MPED450 device  
Art.no.: R060.009.010 Sheath core (Kernmantel) rope  
Art.no.: R016.000.520 Heli-Sling, SS D-ring, EN 1498

European patent no: 002503698-001  
USA Patent: 23-0825-0576900



# ResQ-U® Rescue Kit

## Rescue Solution

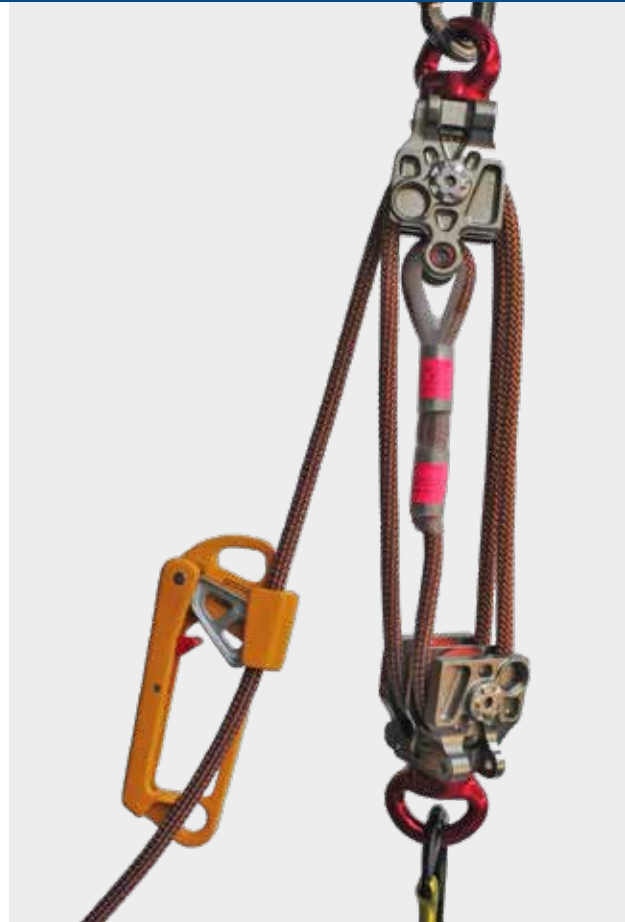
Designed to rescue (raise and lower) users if suspended in a harness after a fall while working at heights, from confined spaces and lower situated positions.

The ResQ-U kit is a rapid response rescue kit if swift recovery is essential. The kit will work effectively with conscious and unconscious casualties. The (single) rescuer can carry out the rescue from a point of safety and raise or lower the casualty in a controlled manner to the nearest point of safety. Kits available with 50, 100, 150 and 200 meters sheath core (Kernmantel) ropes (other lengths on request).

For rescue from lanyards, rope grab systems, inertia reels (SRL), from confined spaces and lower situated positions. No-cut kit: casualty is raised to release the original attachment. Casualty can be raised or lowered and rescued from any suitable anchor device

### Specifications

- Minimum Breaking Strength = 50kN. See RPM System user instructions
- Working Load Limit = 10kN. See RPM System user instructions
- Compact system – only 32cm from end to end when compressed
- Minimum Breaking Strength of 9.5 mm rope = 24kN
- Gear Ratio 4:1 (no power source required)
- Complete with Ascender and Anchor Sling (EN 795)



- Available in four lengths: 50 – 100 – 150 – 200 m Sheath core (Kernmantel) rope
- Kernmantel rope:
  - 9.5 mm - EN 1891 Type A
  - HoPress® Eyelet
- Lightweight Design Shackles with minimal 'sit back' between lifts and the ability to control both lifts and lowerings
- Top and bottom pulley with Swivel Function



European standard: [Machine Directory: MD2006/42/EC](#)  
Rope: [EN 1891 Type A](#)  
[HONOR General Manufacturing Requirements \(ISO-9001\)](#)

**Art.no.: R016.004.001** ResQ-U Rescue Kit, 50m  
**Art.no.: R016.004.002** ResQ-U Rescue Kit, 100m  
**Art.no.: R016.004.003** ResQ-U Rescue Kit, 150m  
**Art.no.: R016.004.004** ResQ-U Rescue Kit, 200m





## Man Riding Winches

means of entry for  
confined entry,  
lowering & hoisting



# STAR<sup>®</sup>-series MRW15 & MRW33

page 1 (of 2)

## Man Riding Winches

Means of entry to lower and hoist users into and from confined spaces, heights, etc. and rescue. Available with max. 15 meters (MRW15) or 33 meters (MRW33) cable length.

### Use

- Man-rated for raising, lowering or supporting users
- Designed specifically for confined space entry and retrieval
- Load can only move if the handle is turned – friction brake is engaged by a minimum of 2 kg (5 lbs) weight



Man Riding Winch (type MRW33) on tripod with Fall Arrest Recovery Block type FAB33R for safe confined entry & rescue

### Specifications MRW15 & MRW33:

- Double redundant braking mechanism with back up Fall Arrest Brake
- Easy manual operation: simply rotate the handle to raise or lower personnel or materials
- Gear ratio 5:1 (no power source required)
- Modular quick-response fall arrest brake
- Minimum fall arrest distance (braking distance)
- Very low occurring fall forces
- Modular recovery winch
- Very low winch-force needed to raise or lower the user
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys





# STAR<sup>®</sup>-series MRW15 & MRW33 page 2 (of 2)



MRW15 & MRW33

- Cable: 5mm galvanized or stainless steel
- Cable lengths:
  - MRW15: max. 15 meter (49 ft)
  - MRW33: max. 33 meter (108 ft)
- Capacity: max. 150 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
- Lightweight Design:
  - MRW15; 11.5 kg (25.4 lbs)
  - MRW33; 19.5 kg (43 lbs)
- Quick-Mount System: accessories; quick-mount bracket which mates with bracket on all HONOR support structures (tripod, TwinSleeve<sup>®</sup> davit, FlangeClamp<sup>®</sup>, Tank-

Man Riding Winches type MRW33 & MRW15 with modular quick-mount brackets on tripod on tripod leg



Clamp<sup>®</sup>) allowing the user to attach/detach device with detent pins and makes retrofitting easy (no additional hardware needed)

- Very low examination & inspection costs
- Swivable connection eye
- Ergonomic designed handle (optional);
- STAR-series<sup>®</sup> industrial design
- Free-Wheel Mode: operator-activated free-wheel mode allows drum to rotate and cable to pay-out freely with movement or descension (handle remains stationary)
- Built-In Fall Protection: free-wheel mode has a built-in overspeed brake with energy absorbing capacity (similar to SRL's) which provides secondary fall protection
- Housing Cover, Winch Module & Overspeed Brake: durable cast aluminium (powder coated), reduces weight
- Corrosion Resistant: corrosive-resistant aluminium rope drum, corrosive-resistant gears and stainless steel internal components
- Safety Hook: swiveling self-locking snap hook provides secure connection to the load and prevents cable from twisting for smoother operation (with non-resettable impact indicator enabling user to visually check to see if device has been impact-loaded)
- Reserve Lifeline System: allows brake to activate and absorb energy if fall occurs at the end of the lifeline
- Reserve Lifeline System: allows brake to activate and absorb energy if fall occurs at the end of the lifeline
- Meets or exceeds Machine Directory 2006/42/EC & EN 1808



European standard: **HONOR General Manufacturing Requirements (ISO-9001)**

Machine Directory: **2006/42/EC**

**Art.no.: R010.015.100 MRW15**

**Art.no.: R010.033.100 MRW33**







## Anchor Devices

height safety,  
evacuation, confined  
entry and rescue

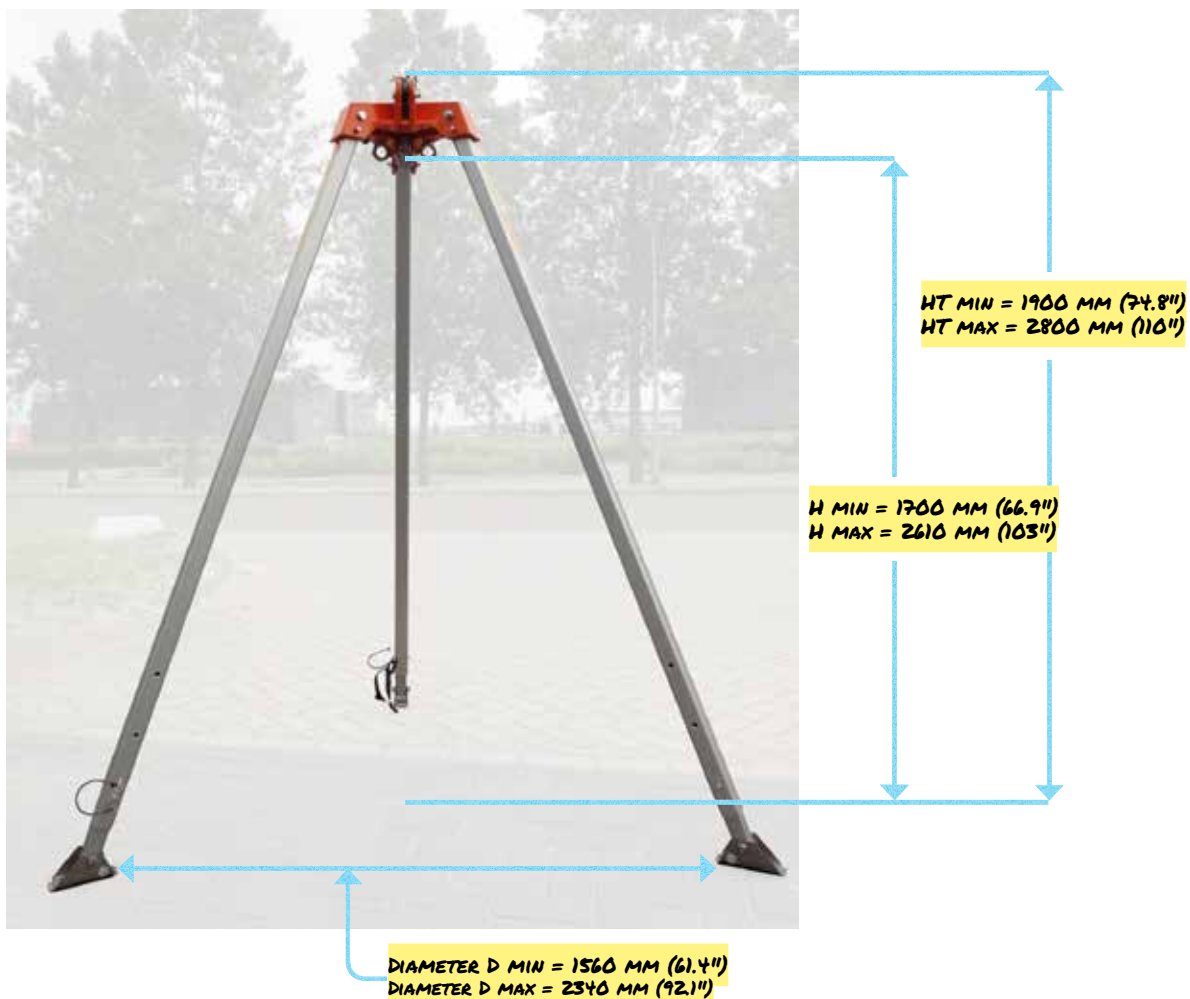




# Tripod page 1 (of 3)

## Height adjustable (telescopic) Tripod as mobile anchor device for users and loads.

Lightweight, aluminium portable anchor device. Can be placed over manholes (vertical & eccentric), tanks, (concrete) pits for confined entry & rescue, mountain rescue and “over the edge rescue”, etc.

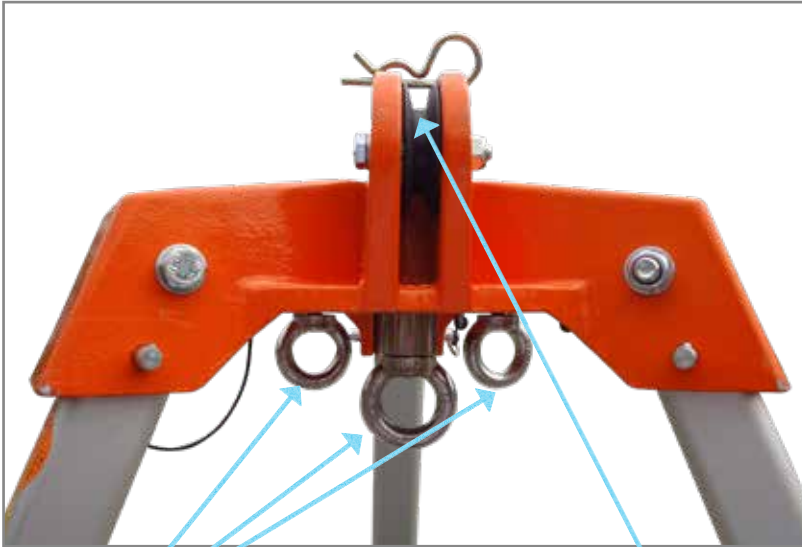






# Tripod page 2 (of 3)

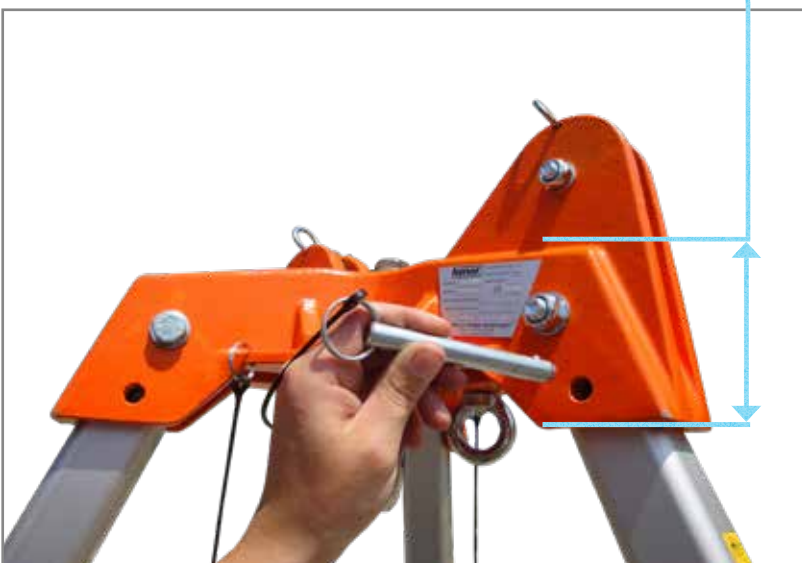
Four (4!) approved connection eyes (swivable):  
'Over the Head' (Recovery, fall arrest & winches) + 3 (fall arrest, rescue & lashing points)



**3 (FALL ARREST, RESCUE + LASHING POINTS)**

**'OVER THE HEAD' (RECOVERY, FALL ARREST + WINCHES)**

**IMPROVED LEG-DAMAGE PREVENTION (HIGHER TRIPOD-HEAD + SMALLER SIZE-TOLERANCES = LESS SURFACE PRESSURE)!**



Telescopic legs in height adjustable (locking pins). Height adjusting locking pins & Mounting Bracket pins: different diameters to prevent mistakes!



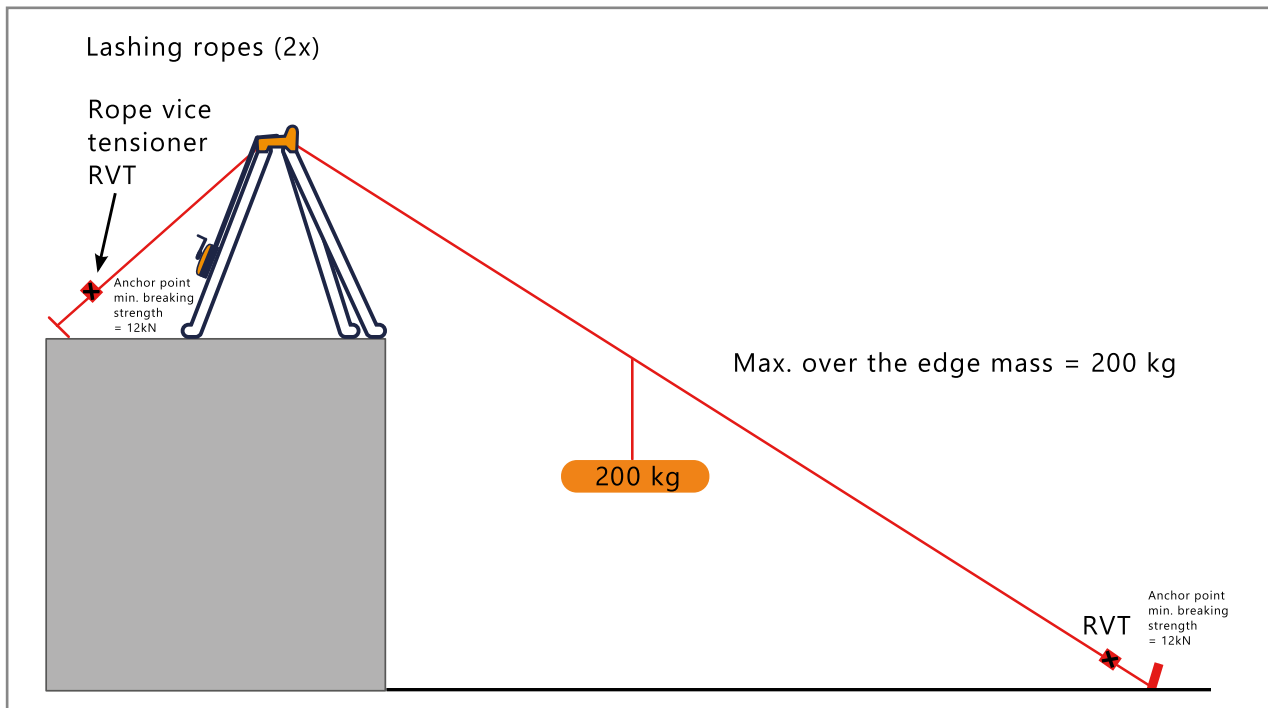
Visual warning too long set legs!



Mounting Brackets for Fall Arrest Blocks, Recovery devices, Man Riding Winches & Winches, Evacuation & Rescue devices (modular with Tripod, TwinSleeve davit, FlangeClamp, TankClamp)



# Tripod page 3 (of 3)



"over the edge" rescue!

Tripod bag



## Specifications HONOR Tripod:

- Setting:
  - Height, adjustable (7 steps):  
1,700 – 2,800 mm (103" – 110")
  - Legs: diameter:  
1,560 – 2,340 mm (61.4" – 92.1")
- Attachment points:
  - 3 swivable eyes (under tripod head)
  - "Over-head" (over tripod head)
  - On legs (using certified modular HONOR mounting brackets)
- Capacity:
  - Under Tripod head (central attachment eye):
    - Users: max. 2 people, or:
    - Loads: max. 500 kg (1,100 lbs)
  - On Tripod legs:
    - Max. 120 kg (265 lbs)
- 'Over-the-edge' setup (for rescue):
  - Capacity on lashing rope: max. 200 kg (441 lbs)
- Attachments:
  - Over tripod-head (cable guide)
  - Three swivable fastenings (under tripod head)
- Visual indicator (red):  
if legs are set too long
- Materials:
  - Head: aluminum
  - Legs: aluminum (anodized)
  - Feet: Stainless Steel
- Weight: 20 kg (44.1 lbs)
- Particularly low examination and inspection costs
- Complete with chain (slipping legs)
- Modular brackets (fall arrest devices, recovery blocks, rescue & evacuation devices and man riding winches attachment)

European standard: **EN 795:2012 Type-B**  
US-Standard: **Z359.14-2012-A**, pending

**Art.no.: R010.210.099** Tripod

**Art.no.: R030.306.100** Tripod ready to use bag







# TwinSleeve® Davit system page 1 (of 6)

## Temporary mobile anchor device for people and loads

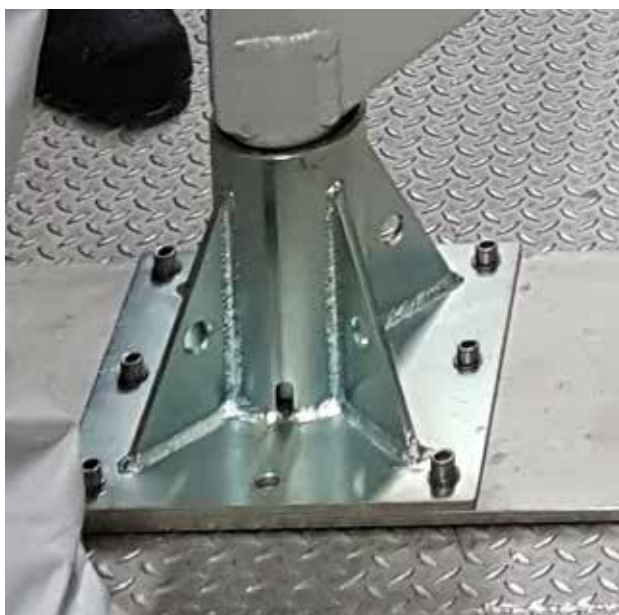
Lightweight, mobile, rotatable and quick to assemble 'Anchor device' for use with fall arrest equipment & rescue systems (confined entry & rescue).

### Mobile anchor device for people and loads

The patented HONOR TwinSleeve® davit has a unique design and is very ergonomic, especially when operated with STAR-series® fall arrest, rescue and evacuation devices and accessories! The lightweight aluminum mast with boom can rotate through the full 360°(!). It remains stable with different modular mount-bases preventing tipping while rotating.

### Unique design

Thanks to the unique TwinSleeve design both the boom and the mast are telescopically adjustable in length and height. The extra length/height settings are important to be able to lift worker's complete body length over an edge or out of a manhole (also if flange/edge higher than the surrounding floor).



### Ergonomic in use

Because the device-sleeve can be adjusted in length it's ergonomic for operators of different lengths. Due to its design two devices (fall arrest, man riding winch or rescue, etc.) can both be connected onto device-sleeve on operator's side!

### Total concept

The total TwinSleeve davit-concept is a davit with a far reach and height without separate components. The required base is determined by the installation site. If regularly used at a specific point a fixed floor adapter can be preferred. When used at different locations the choice is the flexible mobile base.

Attached fall arrest, rescue- and evacuation systems  
When the attached fall arrest, rescue and evacuation systems are combined user-friendliness and ergonomics and local regulations are important. The davit is designed so that the attached systems are operated on the "safe" side of the davit (e.g. not over the edge/ manhole).



# TwinSleeve® Davit system

page 2 (of 6)



## TwinSleeve-bases

Modular bases available:

- TwinSleeve Spider®, Base Mount
- TwinSleeve HitchConnect®, Tow-Bar Base Mount.
- TwinSleeve Counterweight®, base with counterweights.
- TwinSleeve Clamp®, base for clamping on (dam)wall, etc.
- Floor adapter, both in 0galvanized and stainless steel version.





# TwinSleeve® Davit system page 3 (of 6)

## Characteristics:

- Light weight, mobile anchor provision
- Swivable through full 360°, retaining stability in all positions
- Specifically for positioning along piers, platforms, edges, above pits, tanks, manholes, etc.
- To be combined with: fall arrest devices, fall arrest devices with integrated recovery winch, cable and line grab systems, personnel lifting winches, rescue devices, evacuation systems, load safety arrest devices, etc.;

## Modular bases:

Floor Adapters, Wall Adapters, TwinSleeve Spider, HitchConnect, Counterweight and Clamp Base Mount.

## Specifications:

### **ONE-PIECE VERSION TWINSLLEEVE DAVIT:**

- Setting:
  - Height, adjustable: 2,000 – 2,750 mm (6.56 - 9.0 ft)
  - Reach (boom length): 715 – 930 mm (28.1 – 36.6")
- Attachments:
  - Devices:
    - On Mast at operator-side
    - On Boom-Top
- Structure:
  - Mast: single piece
  - Boom: two piece, length adjustable
  - Boom-Sleeve & Device-Sleeve: height adjustable
  - Rotatable 360° (mast with boom)
  - Two cable guides (over the mast-top and boom-top)
- Materials:
  - Mast & Boom: alloy (anodized)
  - Bases: alloy & steel (anodized and powder coated)
- Modular brackets for attaching fall arrest devices, recovery blocks, rescue & evacuation devices, man riding winches available
- Capacity:
  - 1 person (max. 150 kg – 331 lbs)
  - loads max. 500 kg (1,100 lbs)
- Weight (excl. base): 22 kg (48.5 lbs)
- Particularly low examination & inspection costs

### **MULTI-PART VERSION TWINSLLEEVE DAVIT:**

- Settings:
  - Lower Mast + Upper Mast*
  - Height, adjustable: 2,000 – 5,750 mm (6.56 - 18.9 ft)
  - Extension Mast (each)*

- Height (each additional extension mast): 1,000 mm (39.4")
- Maximum three (3) extension masts allowed
- Reach (boom length): 715 – 930 mm (28.1 – 36.6")
- Attachments:
  - Devices:
    - On Mast at operator-side
    - On Boom-Top
- Structure:
  - Mast: multiple piece (max. 5)
  - Boom: two piece, length adjustable
  - Boom-Sleeve & Device-Sleeve: height adjustable
  - Rotatable 360° (mast with boom)
  - Two cable guides (over the mast-top and boom-top)
- Materials:
  - Mast & Boom: alloy (anodized)
  - Bases: alloy & steel (anodized and powder coated)
- Modular brackets for attaching fall arrest devices, recovery blocks, rescue & evacuation devices, man riding winches available
- Capacity:
  - 1 person (max. 150 kg – 331 lbs)
  - loads max. 500 kg (1,100 lbs)
- Weight (excl. base): 22 kg (48.5 lbs)
- Particularly low examination & inspection costs









# TwinSleeve® Davit system

page 5 (of 6)



*TwinSleeve Davit Trolley for easy transport.*

European standards: [EN 795:2012 Type-B](#), pending and [Machine Directory 2006/42/EC](#), pending  
US-Standard: [Z359.14-2012-A](#), pending

#### **TwinSleeve Davit one-piece version:**

**Art. no: R010.235.100** TwinSleeve Davit

#### **TwinSleeve Davit multi-part version:**

**Art. no: R010.235.101** Lower Mast complete

TwinSleeve Davit, multi-part version

**Art. no: R010.235.102** Upper Mast complete

TwinSleeve Davit, multi-part version

**Art. no: R010.235.103** Extension Mast complete

TwinSleeve Davit, multi-part version

#### **Bases:**

**Art. no: R010.235.110** Floor (Flush) Mount Adapter (galv.) TwinSleeve Davit Mast

**Art. no: R010.235.111** Floor (Flush) Mount Adapter (SS) TwinSleeve Davit Mast

**Art. no: R010.235.115** Wall (Top) Mount Adapter (galv.) TwinSleeve Davit Mast

**Art. no: R010.235.116** Wall (Top) Mount Adapter (SS) TwinSleeve Davit Mast

**Art. no: R010.235.120** TwinSleeve Spider, Base Mount

**Art. no: R010.235.130** TwinSleeve HitchConnect Tow-bar Base Mount

**Art. no: R010.235.140** TwinSleeve Counterweight® Base Mount

**Art. no: R010.235.145** TwinSleeve Clamp Base Mount

#### **Accessories:**

**Art. no: R010.235.300** TwinSleeve Davit Trolley (transport)









# FlangeClamp®

## Mobile Anchor for horizontal manholes (ANSI & API 20" & 24" flanges)

The HONOR FlangeClamp® was developed as a mobile anchor device for horizontal manholes. Also an ideal solution with limited space between flange/vessel and (platform) railing.

### Features:

Anchor device for:

- Self Retractable Lifelines
- Recovery Blocks
- Rescue devices
- Man Riding Winches

FlangeClamp standardized for ANSI & API 20" & 24" flanges. Recovery Blocks, SRL's, Man Riding Winches, Rescue & Evacuation devices can be easily applied on FlangeClamp (also modular with STAR®-series devices, TankClamp®, Tripod and TwinSleeve® davit)!

### Extra benefit

FlangeClamp with RescueSlide® and HangingLadder®, kit for confined entry & rescue through horizontal manholes!

### Specifications:

- 'Standard' FlangeClamp-version for manholes:
  - diameters: 500 – 600 mm (20" – 24")



- ANSI & API standardized
- FlangeClamps for other manhole diameters & shapes (oval, etc.): to be engineered on customer requests!
- Attachment: bolted on manhole flange
- Materials: steel (galvanized & orange powder coated)
- Modular brackets for fall arrest devices, recovery blocks, rescue & evacuation devices, man riding winches
- Capacity: max. 1 user
- Weight: 6.5 kg (14.3 lbs)
- Particularly low examination & inspection costs

European standard: EN 795:2012 Type-B

**Art.no.: R010.210.030** FlangeClamp

**Art.no.: R010.210.036** Intermediate Bracket (Blue)

**Art.no.: depending** Device Mounting bracket (Orange)



# HangingLadder-FlangeClamp®

## Mobile Anchor for vertical manholes (ANSI & API 20" & 24" flanges)

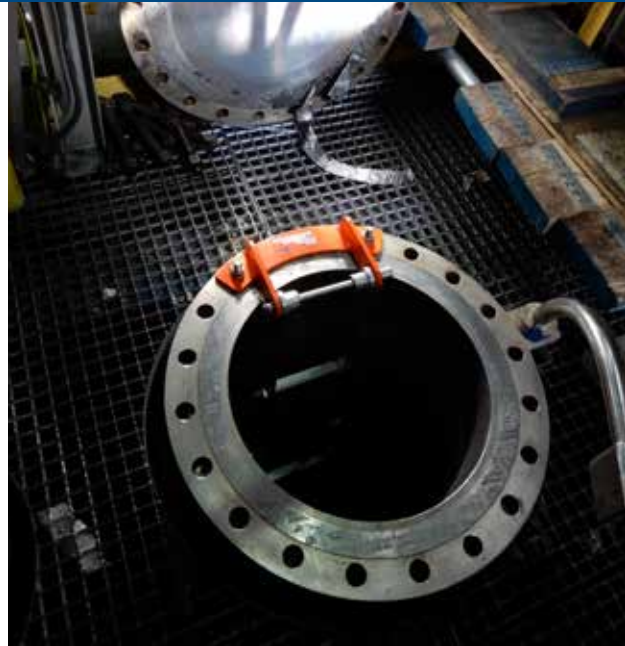
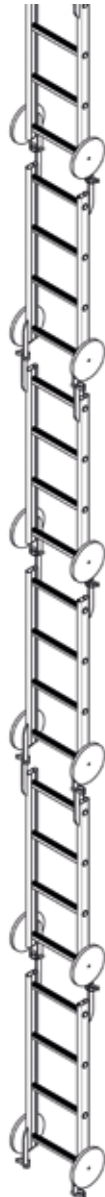
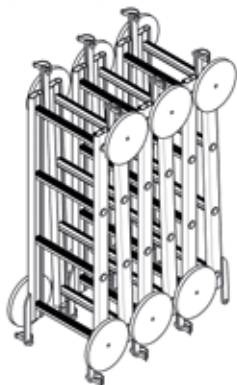
The HangingLadder-FlangeClamp® was developed as a mobile anchor device to attach the HangingLadder onto vertical manholes flanges, landing edges, etc. as stable and safe alternative over rope ladder!

### Unique assembly

HangingLadder-FlangeClamp with HangingLadder® for confined entry & rescue through vertical manholes instead rope ladder!

### Specifications:

- 'Standard' HangingLadder-FlangeClamp-version for manholes:
  - diameters: 500 – 600 mm (20" – 24")
  - ANSI & API standardized
  - HangingLadder-FlangeClamps for other manhole diameters & shapes (oval, etc.): to be engineered on customer requests!
- Attachment: bolted on manhole flange
- Materials: steel (galvanized & orange powder coated)
- Capacity: max. 1 user
- Weight: 6.5 k



Art.no.: R010.210.045 HangingLadder-FlangeClamp

### Accessories

Art.no.: R301.001.001 HangingLadder, Section

Art.no.: R301.001.002 Hinge alu  
(RescueSlide-Ladder connection)



# TankClamp®

## Mobile Anchor for storage tanks, vertical manholes, (concrete) pits, etc.

The TankClamp® was developed as a mobile anchor device to be placed on edges of storage tanks, vertical manholes, (concrete) pits, beams, walls, etc.

### Mobile Anchor facility for:

- Fall Arrest devices (inertia reels, etc.)
- Recovery blocks
- (Temporary) Horizontal lifeline systems (HONORope-T)
- Rescue systems and descent device's (evacuation)
- Fall arrestors with flexible anchor lines
- Lanyards

TankClamp to be fixed by integrated fixation bolts with locking nuts. To prevent (tank) coating damage, TankClamp has Erlaton® slide parts on the inside of clamp. The TankClamp is approved to be used by 2 people simultaneously. Recovery Blocks, SRL's, lanyards, rope grip systems, Man Riding Winches, Rescue & Evacuation devices can be placed onto the modular TankClamp (modular with STAR®-series devices, FlangeClamp®, Tripod and TwinSleeve davit)!

### Vertical application

The TankClamp (with Intermediate Bracket) & STAR-series devices can be used in a vertical application for safe entry of confined spaces. After a fall occurred the SRL can also be used for the rescue operations.

### Horizontal application

HLL can be installed between two - opposite each other placed - TankClamps.

Even a third TankClamp, 90° angle from HLL, with recovery or rescue device makes it possible to safeguard users in e.g. pits, water tanks, etc.



### Modular accessories:

- Intermediate Bracket
- Device Mounting bracket
- Any STAR-series range device

### Modular accessories:

- 'Standard' TankClamp-version for edges:
  - Edge-width: max. 300 mm
  - Other sizes: to be engineered on customer requests!
- Attachment: bolt-clamped
- Materials: steel (galvanized & orange powder coated)
- Modular brackets for fall arrest devices, recovery blocks, rescue & evacuation devices, man riding winches
- Capacity: max. 2 users
- Weight: 10.7 kg (23.6 lbs)
- Particularly low examination & inspection costs



European standard: [EN 795:2012 Type-B](#)

### TankClamp max. 2 workers

Art.no.: **R010.210.020** TankClamp

### Accessories

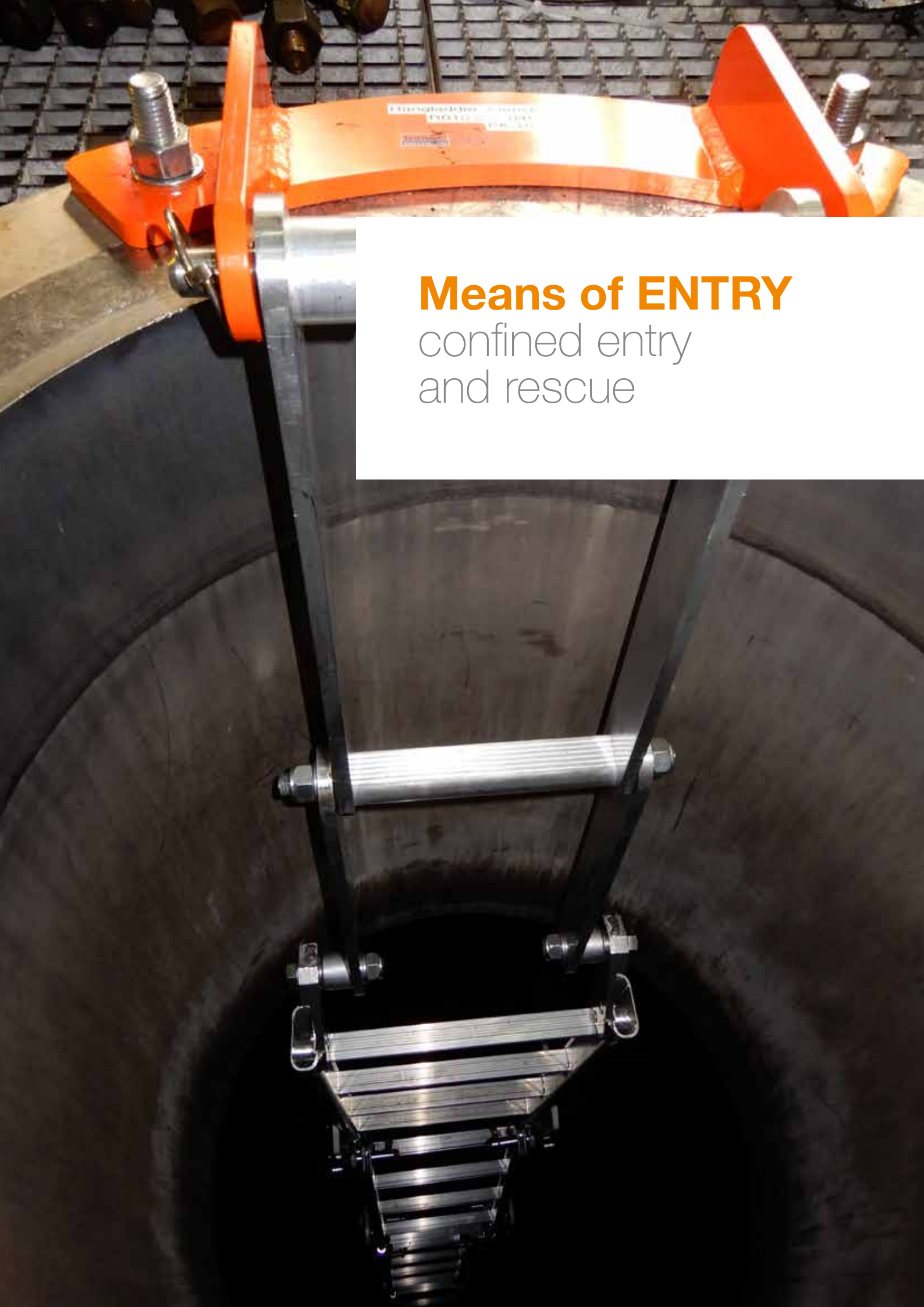
Art.no.: **R010.210.034** Intermediate bracket (Blue)

Art.no.: **depending** Device Mounting bracket









## **Means of ENTRY**

confined entry  
and rescue





# RescueSlide®

## Safe entry & rescue through horizontal manholes

The HONOR RescueSlide® can be used self-contained or with the FlangeClamp®, Fall arrest or recovery block and Hanging-Ladder®. An ideal kit for safe entry and rescue through horizontal manholes!

How to enter a vessel (reactor, tank, etc.) through a horizontal tubelure and fast rescue from the confined space? RescueSlide main advantages are safe entry horizontal manholes preventing injuries and the minimum loss of free manhole space (while body is passing through), even with chemical clothing.

The HONOR FlangeClamp, with Fall Arrest, Recovery Block or Rescue Device, is modular with the RescueSlide and can be mounted on top of the manhole.



### Specifications

- Standard' RescueSlide-version for manholes:
  - diameters: 500 – 600 mm (20" – 24")
  - RescueSlide for other manhole diameters & shapes (oval, etc.), longer/shorter tubelures, etc.: to be engineered on customer requests!
- Attachment: clamped on manhole flange by two clamps
- Materials: aluminium (orange powder coated)
- Brackets present for HangingLadder
- Capacity: max. 1 user
- Weight: 14.5 kg (32 lbs)
- Ultimate ergonomic design

**Art.no.: R010.210.200** RescueSlide® (standard)  
**Art.no.: R010.210.210** RescueSlide® (custom made)

#### Accessories

**Art.no.: R301.001.001** HangingLadder  
 Section L=1.15 m (3.77 ft), Alu

**Art.no.: R301.001.002** Hinge  
 alu (RescueSlide-Ladder connection)



# HangingLadder®

## Hinged HangingLadder (accessory to RescueSlide and HangingLadder- FlangeCamp)

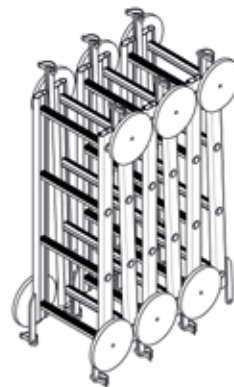
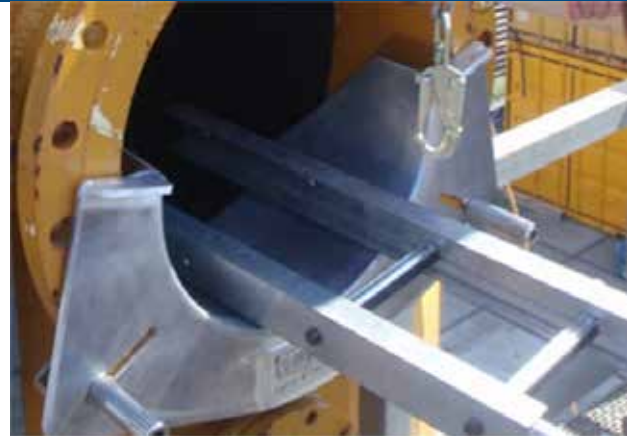
As stable alternative over rope ladders. Easy to instal from outside confined spaces. Has many advantages over rope ladders and paring-ladders, especially in case of small diameter reactors.

### Hinged Hanging Ladder (accessory to RescueSlide):

To be connected onto the RescueSlide or HangingLadder-FlangeClamp and developed to enter small diameter vessels. After connecting the first ladder section (length = 1 m/each), the next ladder sections can be connected and slowly lowered into the vessel in a controlled manner.

### Specifications:

- Types of manholes:
  - Horizontal (with RescueSlide)
  - Vertical & Eccentric (with HangingLadder-FlangeCamp)
- Attachment: locking-pins
- Materials:
  - Ladder section: aluminium
  - Distance keeper: polyacetal (POM)
- Ladder:
  - Section length: 1.15 meter (3.77 ft)
  - Total length: max. 30 meters (98.4 ft)
  - Width: 350 mm (13.8")
  - Distance Keeper diam.: 200 mm (7.87")
- Capacity: max. 1 user
- Weight: 5.0 kg (11 lbs)
- Particularly low examination & inspection cost



European standard: **EN 131**

**Art.no.: R301.001.001** HangingLadder, Section  
**Art.no.: R301.001.002** Hinge (HangingLadder attachment to RescueSlide)

### Accessories

**Art.no.: R010.210.200** RescueSlide®  
**Art.no.: R010.210.045** HangingLadder-FlangeCamp







Anchor devices  
**Load Arrestors**



# STAR®-series LA15/300

## Load Arrest Device 15 m

Designed to arrest and stop the unintentional fall of heavy objects such as loads, elevators, packing machines, raw materials, assembly line tools or materials.



CONNECTION EYE SWIVABLE.



With max. 15 meters (LA15/300) cable length. Used as a backup device to the main support unit, the load arrestor's inertia locking mechanism will engage stopping the load if it breaks free.

### Specifications LA15/300

- Arrests accidental fall of heavy objects
- Maximum load rating 300 kg (661 lbs)
- Brake mechanism:
  - One independent and modular quick-response fall arrest brake
  - Minimum fall arrest distance (braking distance)
  - Inertia activated brake
  - Energy absorbing system
- Self retracting lifeline
- Cable:
  - Length: max. 15 meter (49 ft)
  - 5 mm galvanized steel
  - HoPress-eyelet
- Swivable connection eye
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 9.2 kg (20.3 lbs)
- Portable and self-contained system
- Heavy-duty durable construction
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Particularly low examination & inspection costs
- STAR-series® industrial design

European standard: [HONOR General Manufacturing Requirements \(ISO-9001\)](#)

Art.no.: **R010.015.200** LA15/300

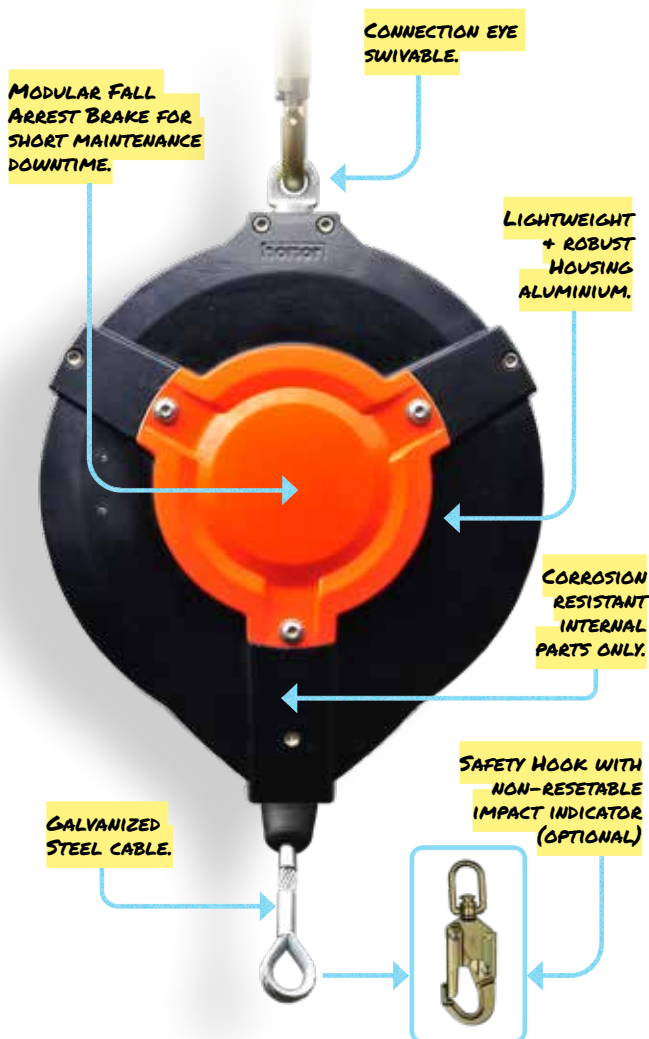
European patent no: **002503698-001**  
USA Patent: **23-0825-0576900**



# STAR®-series LA15/500

## Load Arrest Device 15 m

Designed to arrest and stop the unintentional fall of heavy objects such as loads, elevators, man baskets, raw materials.



With max. 15 meters (LA15/500) cable length. Used as a backup device to the main support unit, the load arrestor's inertia locking mechanism will engage stopping the load if it breaks free.

### Specifications LA15/500

- Arrests accidental fall of heavy objects
- Maximum load rating 500 kg (1,102 lbs)
- Brake mechanism:
  - Two independent and modular quick-response fall arrest brakes
  - Minimum fall arrest distance (braking distance)
  - Inertia activated brake
  - Energy absorbing system
- Self retracting lifeline
  - Cable length: max. 15 meter (49 ft)
  - 8 mm galvanized steel
- Swivable connection eye
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 17.2 kg (37.9 lbs)
- Portable and self-contained system
- Heavy-duty durable construction
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Particularly low examination & inspection costs
- STAR-series® industrial design

European standard: [HONOR General Manufacturing Requirements \(ISO-9001\)](#)

Art.no.: **R010.015.500** LA15/500

European patent no: **002503698-001**  
USA Patent: **23-0825-0576900**

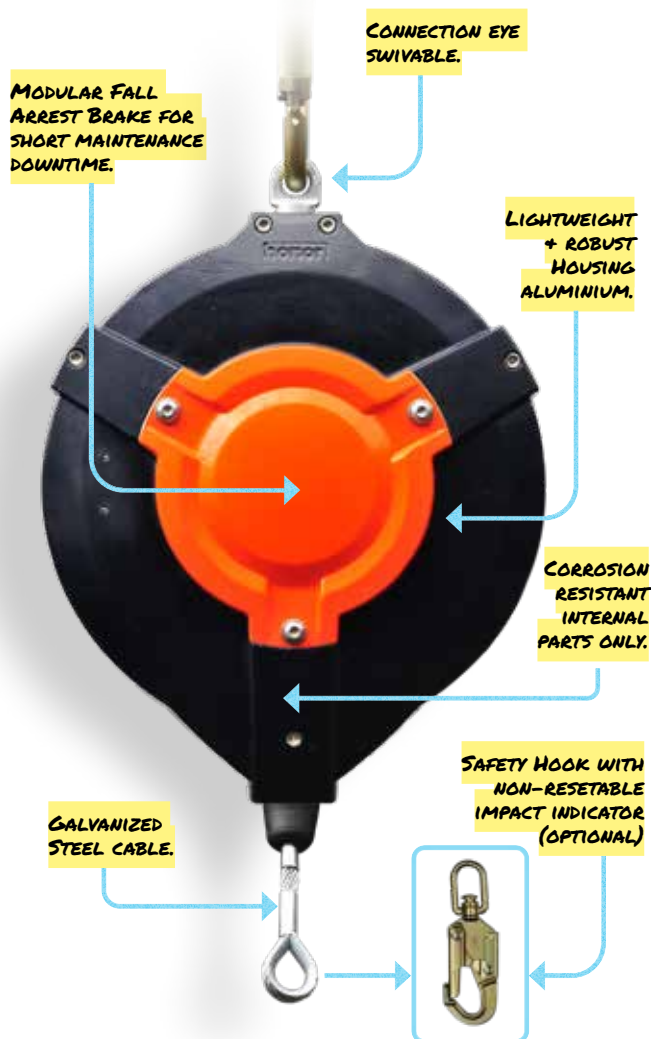




# STAR<sup>®</sup>-series LA33/300

## Load Arrest Device 33 m

Designed to arrest and stop the unintentional fall of heavy objects such as loads, elevators, packing machines, raw materials, assembly line tools or materials



With max. 33 meters (LA33/300) cable length. Used as a backup device to the main support unit, the load arrestor's inertia locking mechanism will engage stopping the load if it breaks free.

### Specifications LA33/300:

- Arrests accidental fall of heavy objects
- Maximum load rating 300 kg (661 lbs)
- Brake mechanism:
  - One independent and modular quick-response fall arrest brake
  - Minimum fall arrest distance (braking distance)
  - Inertia activated brake
  - Energy absorbing system
- Self retracting lifeline
- Cable:
  - Length: max. 33 meter (108 ft)
  - 5 mm galvanized steel
  - HoPress-eyelet
- Swivable connection eye
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 17.2 kg (37.9 lbs)
- Portable and self-contained system
- Heavy-duty durable construction
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Particularly low examination & inspection costs
- STAR-series<sup>®</sup> industrial design

European standard: [HONOR General Manufacturing Requirements \(ISO-9001\)](#)

Art.no.: **R010.033.200** LA33/300

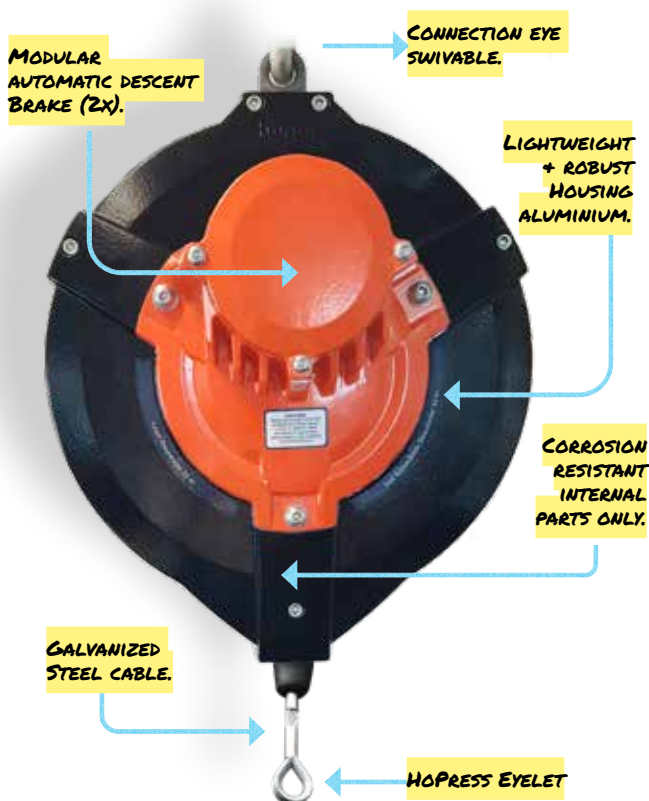
European patent no: **002503698-001**  
USA Patent: **23-0825-0576900**



# STAR®-series LAD33/200

## Load Arrest Descender Device 33 m

Designed to arrest and automatically descend the unintentional fall of heavy objects such as (cleaning, shot blasting and other) robots, loads, elevators, etc.



### Specifications LAD33/200:

- Arrests accidental fall of heavy objects
- Maximum load rating 200 kg (441 lbs)
- Brake mechanism:
  - Double (independent) centrifugal descent brake mechanism
  - Modular continuously activated descent brakes
  - Descent speed < 2 m/s
- Self retracting lifeline
- Cable:
  - Length: max. 33 meter (108 ft)
  - 5 mm galvanized steel
  - HoPress-eyelet
- Swivable connection eye
- Capacity: max. 200 kg (331 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 17.2 kg (37.9 lbs)
- Portable and self-contained system
- Heavy-duty durable construction
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Particularly low examination & inspection costs
- STAR-series® industrial design

With max. 33 meters (LAD33/200) cable length. Used as a backup device to the main support unit, the load arrestor's descent brake mechanism will engage descending the load if it breaks free.

European standard: [HONOR General Manufacturing Requirements \(ISO-9001\)](#)

Art.no.: **R010.033.900** LAD33/200

European patent no: [002503698-001](#)  
USA Patent: [23-0825-0576900](#)



# STAR®-series LAW33/250

## Load Arrestor + Winch Device 33m

Designed to arrest and winch (hoist or lower) the unintentional fall of heavy objects such as robots, loads, etc.

With max. 33 meters / 108 ft (LAW33/250) cable length. Used as a backup device to the main support unit, the load arrestor's inertia locking mechanism will engage stopping the load if it breaks free.



### Specifications LAW33/250:

- Arrests accidental fall of heavy objects
- Integrated Winch (recovery)
- Maximum load rating 250 kg (551 lbs)
- Brake mechanism:
  - One independent and modular quick-response fall arrest brake
  - Minimum fall arrest distance (braking distance)
  - Inertia activated brake
  - Energy absorbing system
- Self retracting lifeline
- Cable:
  - Length: max. 33 meter (108 ft)
  - 5 mm galvanized steel
  - HoPress-eyelet
- Swivable connection eye
- Capacity: max. 250 kg (551 lbs)
- Temperature range:
  - min. -40°C, max. 55°C
  - min. -40°F, max. 130°F
- Weight: 19.5 kg (43 lbs)
- Portable and self-contained system
- Heavy-duty durable construction
- Applied materials:
  - housing & modules: Lightweight, robust Marine-Grade alloy – powder coated.
  - Internal components: stainless steel & Marine-Grade alloys
- Particularly low examination & inspection costs
- STAR-series® industrial design

European standards: [Machine Directory 2006/42/EC](#) and [HONOR General Manufacturing Requirements \(ISO-9001\)](#)

Art.no.: R010.033.250 LAW33/250

European patent no: 002503698-001  
USA Patent: 23-0825-0576900





**Rescue**  
Stretcher & Board





# Rescue TIP-BOARD®

part 1 (of 3)

## Inflatable, stable rescue board for water & ice rescue.

Rescue TIP-BOARD is an inflatable life raft which enables faster, more efficient and safer water and ice rescues by fire brigades and rescue services. Pulled by the SEABOB RESCUE (20 km/h through water!), guarantees quick rescue (no boat ramp needed).

Rescue TIP-BOARD® is an inflatable rescue board developed for quick, effective and efficient water rescue actions in swift water, lakes, floodwater, rivers and seas.

### Rescue on water and ice

The Rescue TIP-BOARD® is a fully inflatable life raft that improves water and ice rescue because it is safer, faster, more effective and efficient than other methods. This can be done while the rescue operation can be carried out without the physical effort of the surface destroyers or divers. The Rescue TIP-BOARD with lifeguards is powered by a separate, electric waterjet, the SEABOB RESCUE.

### Water and ice rescue up to 6 times faster!

The advantage of the new method is mainly the speed of the rescue operation by using the inflatable board with large buoyancy and ease to get a drowning person on board quickly. This time saving is vitally important. Moreover, the victim can already be stabilized on the way back on the raft, where in the current situation the victim is first drawn back to the shore by the water. The method is also safer for emergency services and requires little energy. All effort can remain fully focused on saving the victim.

The Rescue TIP-BOARD with SEABOB RESCUE also offers the possibility to carry out quick rescue where no diving team is stationed.





# Rescue TIP-BOARD®

part 2 (of 3)

## Inflated within 30 seconds

In folded condition (ready in special backpack) the dimensions of the fully inflatable Rescue TIP-BOARD are very small and fit on any extinguisher vehicle. In case of a calamity, for example, rescuers walk easily through a reed land or between cars to the waterfront and a boat ramp is not necessary! This unique surface rescue product is inflated within 30 seconds and quickly attached to SEABOB RESCUE, which is launched simultaneously. A rescuer takes place on the Rescue TIP-BOARD while the second rescuer serves the SEABOB RESCUE and sails at 20 km/h to the water victim.

## Specifications (TIP-BOARD)

- Dimensions inflated  
(LxWxH): 270x130x70cm – 106 × 51.2 × 27.6 “
- Dimensions in backpack  
(LxWxH): 90x50x40cm – 35.4 × 19.7 × 15.7 “
- Air volume: 570 liters  
(3 liters, 200 bar air cylinder required or pumped)
- Inflating time with air cylinder: 15 – 30 s
- Weight: 22 kg – 48.5 lbs
- Buoyancy in fresh water: > 500 kg – 1,100 lbs

## Dutch Design Award

The highly effective Rescue TIP-BOARD, awarded with the Dutch Design Award, has been designed with a completely different view of the problems involved in surface attack. This is to significantly improve the constraints of conventional resources and procedures during these deployments. We succeeded in making optimal use of the current state of the art.







# Rescue TIP-BOARD®

part 3 (of 3)

## Goals

- Creating a solution for firefighting and rescue services that guarantees a safe and fast Surface Rescue (water & ice) in lakes, during floods, (fast-flowing) rivers and possibly at sea;
- Safe for victim & savior;
- Minimal Training;
- Minimal manipulation of water victim;
- Fast;
- Lightweight;
- Compact dimensions in packaging;
- Effective;
- Efficient;
- Cost saving.

## Features Rescue TIP BOARD

- Fast inflatable, small packed, lightweight and excellent portable liferaft;
- With a (breathing) air cylinder inflatable within 30 seconds;
- The raft can tilt ("tip") so that the victim can be pulled on the raft with minimal effort by a single carer;
- No boat ramp required;
- Significant reduction costs for water rescue and ice rescue teams.

## Ice rescue

Besides the fact that the HONOR Rescue TIP-BOARD is a stable rescue board for water rescue it also has numerous functionality's to perform ice rescue operations.

## The Rescue TIP-BOARD allows

you to do the "procedure Surface water Rescue" or "Ice Rescue" in the best possible way.



European Patent No: 12151152.1  
USA patent no: US2012/0180218A1

Art.no.: R700.100.100 Rescue TIP-BOARD)  
Art.no.: R700.100.125 Bag, backpack model  
Art.no.: R700.100.130 SEABOB







# SEABOB RESCUE®

part 1 (of 2)

## Electric waterjet for search and storage of water victims.

Powering the Rescue TIP-BOARD the SEABOB RESCUE is an electric waterjet also to use for divers during rescue operations, search and storage of water victims underwater. The SEABOB RESCUE dives up to 40 meters deep, can be equipped with lights, movie and still cameras and sonar equipment!

### SEABOB RESCUE – dive rescue and search

The SEABOB RESCUE is an electrically powered waterjet that can be used to sail on the surface of the water and dive to a depth of up to 40 meters! This environmentally friendly, so 'green', and compact vessel prevents a social worker from having to swim and gets tired during this rescue effort due to this heavy physical effort. The vessel achieves a speed of approximately 20 km per hour and works on Li-ion batteries. The device can be called compact with a length of 1.15 m and a weight of 34 kg.



### Use of SEABOB RESCUE by divers

The use of the SEABOB RESCUE by divers is interesting! Because of this, divers do not have to swim during submersion such as searches for water victims under water. Also, the reduced physical effort consumes less breathing air and you can carry out searches faster and longer! In addition, the SEABOB RESCUE can dive up to 40 meters deep (adjustable maximum dive depth), and can be equipped with lights, film and photo cameras and sonar equipment! The maximum speed is about 20 km per hour and works on Li-ion batteries. With a length of 1.15 m and a weight of 34 kg to be called compact and therefore fits on almost every push-out vehicle!







# SEABOB RESCUE®

part 2 (of 2)



## Ideal in combination with Rescue TIP BOARD

In combination with the Rescue TIP BOARD, the SEABOB RESCUE is the ideal system for surface disposal.

## Specifications Sea-BOB

- Power up to: 5.2 kW (7 HP);
- Maximum torque: 22 Nm;
- Maximum thrust: 734 N;
- Speed on water to: 20 km / h (12.43 mph);
- Under water speed up to: 14 km / h (8.7 mph);
- Speed control: 6 power levels (steps) between 0% and 100% via piezo buttons;
- Energy: 14 Power High-Energy Li-Ion accumulators (without memory effect);
- Total capacity approx.: 2.1 kW / h; 56 V; 40 Ah;
- Operating time average: 60 minutes;
- Charging time (standard charger) approx.: 10-12 hours;
- Charging time (fast charger) approx. : 110 minutes;
- ACS (Accumulator Change System):  
Accumulator system can be changed for continuous use;
- Dive depth: up to 40 meters (adjustable);
- Dimensions (L x W x H): 1,296 x 481 x 379 mm;
- Weight approx. : 34 kg;
- Buoyancy in (fresh) water ca. : 10 kg



Art.no.: R700.100.130 SEABOB RESCUE



# Water Victim Basket Stretcher D90

## Rescue Basket Stretcher D90 for saving water victims or drowning people without manipulating the body.

The Rescue Basket Stretcher D90 was specially developed by HONOR for the rescue of (supercooled) water victims.

By sinking the basket under the water surface, a (fire) diver can swim the victim above the basket. Subsequently, the drowning person is brought ashore without manipulating the body. Lifting the Rescue Basket Stretcher D90 out of the water takes place by means of a rescue device or otherwise, while at the same time the water in the basket is drained rapidly through slotted holes. At the same time Rescue Basket Stretcher D90 are used for salvage and thanks to the seamless finish they can be cleaned easily, quickly and easily.

### Features

- Victim in horizontal position;
- Flat bottom so that victim with scoop stretcher can be taken out;



- Drainage trenches (15x) in the soil to prevent drowning of the victim and overload of the red vehicle;
- Material: reinforced polyester with steel, support ring entirely in the plastic;
- Smooth finished handles (10x);
- Sliding ribs at the bottom for easy moving over ground level;
- Integrated fixation straps are optionally available
- Smooth bottom prevents hooks from pulling over the bottom of the tank or ramp area;

### Specifications

- Dimensions: (LxWxH) 2,275 x 680 x 210 mm (89.6 x 26.8 x 8.27")
- Weight: 17 kg (37.5 lbs)
- Capacity: max. 270 kg (595 lbs)
- Color: Blue - RAL5010

### Accessories

- Hauling strop, adjustable
- Carrying bag



Art.no.: R050.000.015 Water Victim Basket Stretcher  
 Art.no.: R050.000.025 Hauling strop, adjustable  
 Art.no.: R030.306.025 Carrying bag









# SLIX Rescue Stretcher

## Rescue and Evacuation, both horizontal & vertical

The SLIX Rescue Stretcher is specially designed for both vertical and horizontal types of rescue. Fully supporting the whole body makes it possible to rescue horizontally and vertically (confined space, heights).



Due to the color coded straps it is hardly possible to make mistakes immobilizing the victim. No straps underneath the stretcher, but integrated into the stretcher. In this way obstacles cannot cut or damage the straps during rescue operations. The 9 (!) carrying handles on all sides (over almost whole lengths) of the stretcher makes it easy and comfortable to carry the SLIX. The SLIX stretcher is made of lightweight plastic.

### Optional

By using the Spinal Splint in combination with the SLIX stretcher the victim can be optimally immobilized.

The stretcher can be used evacuating persons from confined spaces, rough terrain, from heights, from water and all in both a vertical and/or horizontal position!



### Specifications

- Weight SLIX Rescue Stretcher 6.9 kg (15.2 lbs)
- Weight Spine Splint (accessorie) 3.4 kg (7.5 lbs)
- Lifting eyelets vertical position (green): 4
- Lifting eyelets horizontal position (blue): 4
- Lifting bridles for vertical use
- Lifting bridles for horizontal use
- Foot supports
- Carrying bag (also as backpack)

Art.no.: R050.000.016 SLIX

Art.no.: R050.000.026 SLIX - Quick-Lock



# SLIX Spinal Splint

## Rescue and Evacuation, both horizontal & vertical

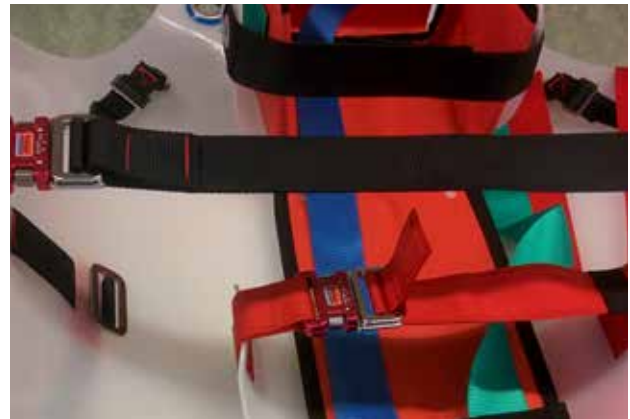
The SLIX Spinal Splint to extra immobilize a victim in the SLIX rescue stretcher. For hoisting, back injuries and internal injuries!

An important accessory if the victim has to be lifted vertically or back injury or internal organs are damaged! This SLIX Spinal Splint can be fixed in the SLIX rescue stretcher. Rolled up in the SLIX stretcher the whole can be carried in the included bag (backpack model).

### Maximum immobilization

For extra immobilization of the victim a spinal plank (Spinal Splint) is available which can be fixed in the rescue stretcher SLIX.

- Flexible, lightweight plastic;
- Padded back;
- Made from flexible, lightweight plastic;
- Color-coded trunk and hip fixation straps (4 x);
- Color-coded fixation straps in the groin
- Head cap with head / neck immobilization straps;
- To be attached in SLIX Rescue Stretcher;
- With Quick-Lock closures available;
- Fits in ready-to-wear bag (backpack model).



Certification: [Medical devices directive: 93/42/CE Type-11](#)

**Art.no.: R050.000.018** SLIX spinal splint

**Art.no.: R050.000.028** SLIX spinal splint - Quick-Lock





# Maintenance & Periodic Examination

ISO 9001, EN 365:2004 &  
MD 2006/42/EC

## Maintenance & Periodic Examination

In case of Category-III PPE-equipment a conclusive periodic service protocol is essential! The 'HONOR Service Management System' App guarantees in time servicing of your PPE.

As in EN 365:2004 and recorded in HONOR's ISO-9001 Quality Management System, our protocols are as requested in Directives and Standards and are to be carried out by HONOR authorized and competent Service Centers only.

### Periodic examinations procedures:

- Registration product-identification, serial number, date of purchase & last examination
- Visual-, function- & load inspection (depending on PPE) based on procedures
- If necessary repair and/or replacement of parts
- Filling out HONOR Examination-App (tablet)
- Examination stickers (& removal expired stickers)
- Digital and/or written certificate

### HONOR and its Service Centers examine:

- Height safety systems (horizontal, vertical, etc.)
- Rescue- & Evacuation devices
- (structural) Anchors, etc.



HONOR owns a Service Centre or cooperates with Authorized Service Centers (HONOR distributors). All examinations and repairs are conducted by experienced, authorized and competent persons. All aspects like dynamic and static testing, function tests of height safety equipment and systems are strictly done in accordance with HONOR instructions.

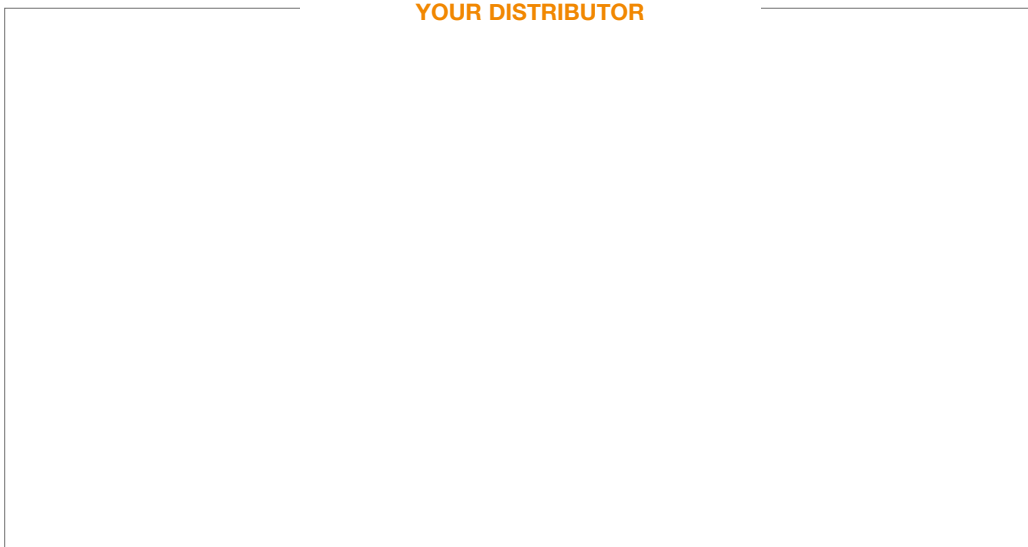








**YOUR DISTRIBUTOR**



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Height Safety



Confined Entry and  
Rescue & Evacuation



Consultancy



Courses and Training



Service and Maintenance

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