



TRACTEL® SOLUTIONS FOR TOWER BUILDERS

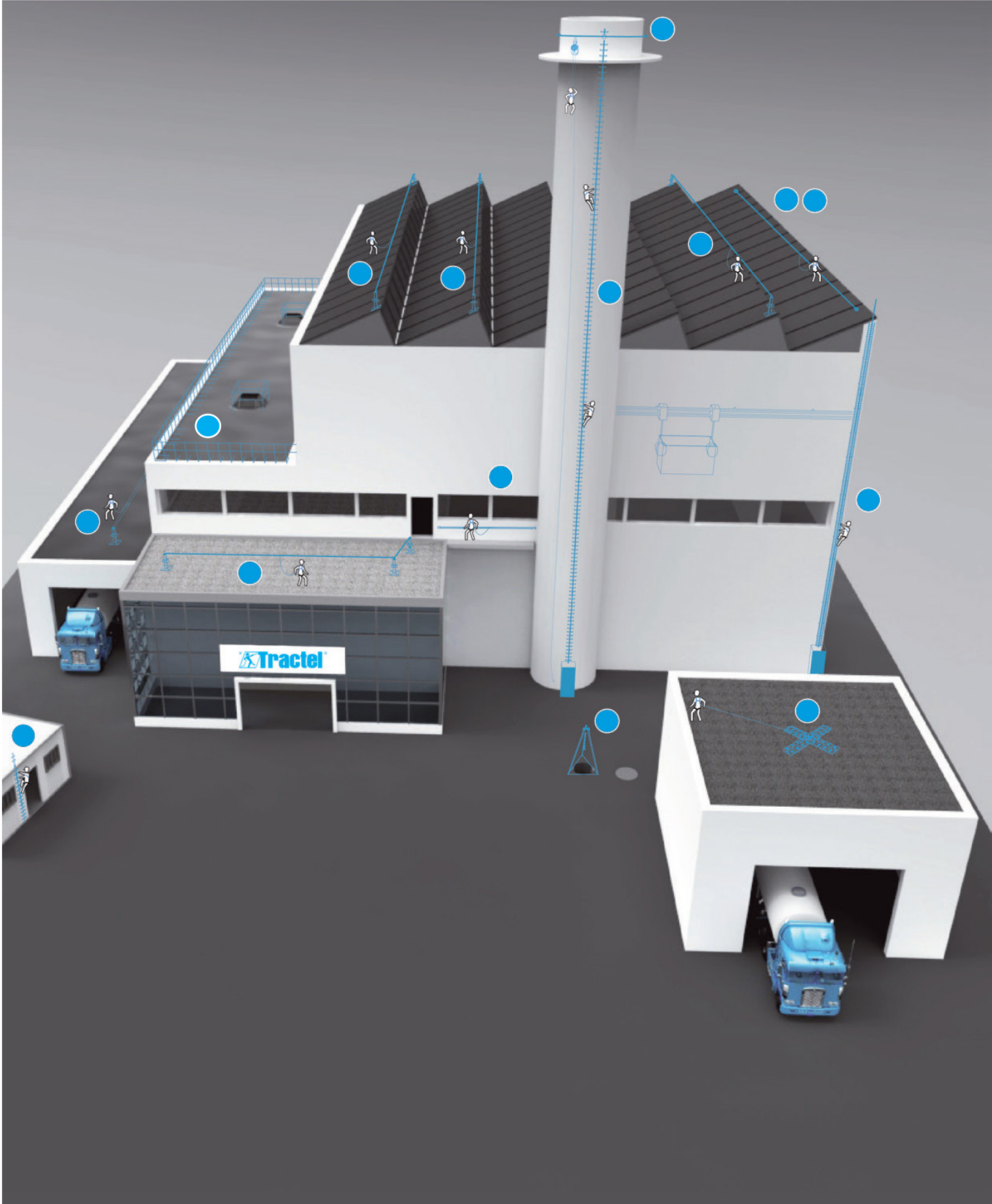
www.tractel.com

Why choose Tractel® :

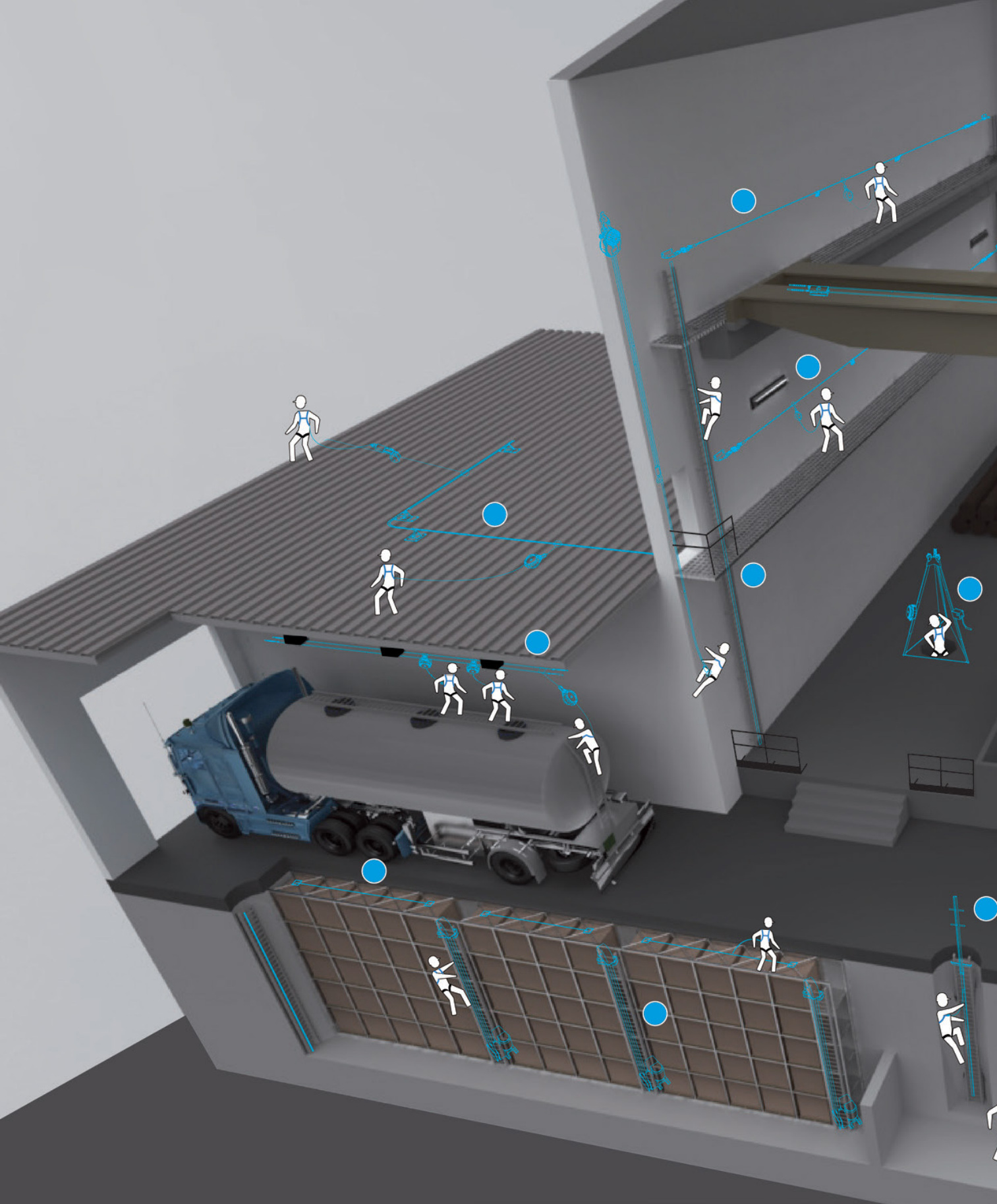
- Enhanced **Safety** and **Protection** for your employees, whatever your application, industry or geographical location
 - Leading provider of fall arrest systems and working-at-height equipment
 - Active participant in all industry standardisation bodies (Europe, North America)
 - Competent contact person in field service, permanent contact person in office service
- A comprehensive range of **Products** and **Solutions**, which combine performance, ergonomics, safety and comfort
 - Approval of the **High Capacity Range** of PPE for capacities of 150 kg, protecting users up to 150 kg (for people including clothing and tooling weighing up to 150 kg)
 - Unlimited lifetime of PPE products under certain conditions
 - Full product solutions offering of Lifting & Handling products, Load Measurement & Control equipment, Height Safety Products & Solutions, Temporary Access, Permanent Access and Service
 - Development of special products, adapted to customer-specific needs and applications possible
- Global and local **Sales, Service** and **After-sales** support
 - Subsidiaries in 19 countries
 - Local Tractel® Service locations
 - Comprehensive network of service partners
- Excellence and integrity in **Engineering** and **Manufacturing**
 - Centres of Excellence in Engineering in France, Germany, Luxembourg, Canada, USA, Singapore and Finland
 - Manufacturing facilities in Canada, China, Finland, France, Germany, Poland, Singapore, Spain and Turkey
 - Full lifecycle support to clients from feasibility through design to execution
- Assured **Quality** and recognised **Standards**
 - Tractel® is certified according to ISO 9001, according to ISO 14001 and OHSAS 18001
 - Tractel® products are certified according to the new Machinery Directive 2006/42/EC, according to EN 1808 and comply with the current standards for PPE such as EN 18799-1 (fixed ladders with side rails), EN 18799-2 (fixed ladders with central spar), EN 341 (abseiling devices), EN 353-1 (moving fall arresters including a guide) and EN 353-2 (moving fall arresters on moving guides).
 - Close cooperation with test centres, certification bodies etc.
- **Experience** and **Expertise**
 - Established more than 70 years ago, with the pass-through manual winch tirfor®
 - Today present in 6 segments - Lifting & Handling, Load Measurement & Control, Height Safety Products & Solutions, Temporary Access, Permanent Access and Services -

Tried, Tested, Tractel®

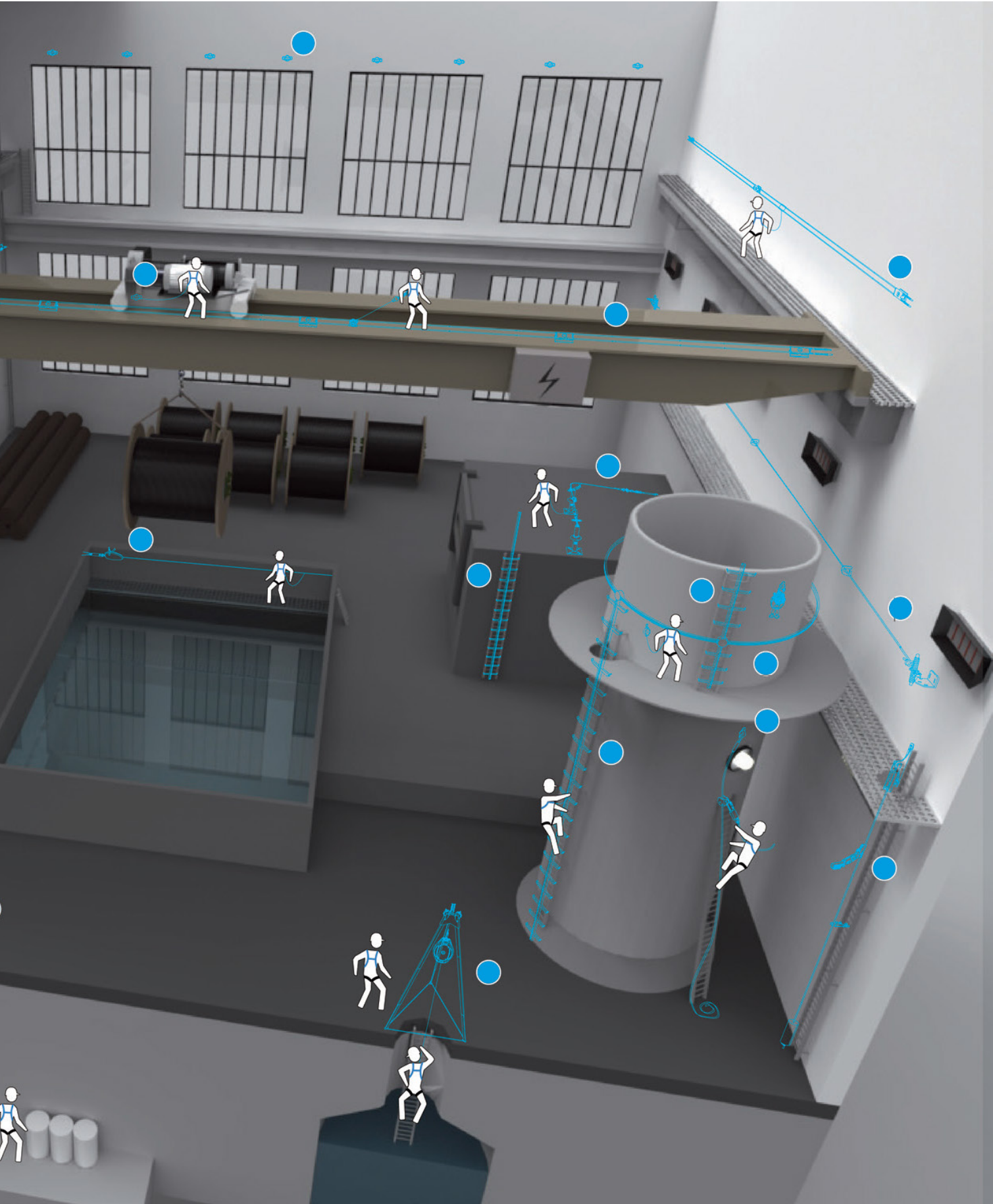
Overview Tractel® product solutions



Overview Tractel® product solutions



Overview Tractel® product solutions



Tractel® products for tower builders

FABA™ Fall arrest systems

Since 1965, Tractel® has offered vertical or horizontal ladder access solutions (FABA™ systems) based on modular, robust designs. FABA™ offers complete solutions and safety rails for safe access to your workplaces at height. A complete range of standard components guarantees a fall protection system according to EN 353-1.

FABA™ Fall arrest systems allow safe climbing on fixed vertical ladders at any height and on horizontal or inclined access routes, such as the tower types shown on the following pages and e.g.:

- Towers, fireplaces, pillars, lighting or antenna masts, pylons, chimneys

Functionality

The user must wear a harness that is directly connected to the slider in the FABA™ rail. In the event of a fall, the slider engages immediately in the rail and thus prevents serious injuries and fatalities.

The sliders have a mechanical construction and are guided by the inner profile of the FABA™ rail. They offer good tolerances for installation and use. The Tractel® sliders also offer excellent sliding properties. Their shock absorbers are designed to cushion the fall and significantly reduce the force exerted on the human body.

Advantages

The FABA™ systems are the only ones on the market with an internal slide system: The main rollers of the slider run inside the rail and thus ensure constant and even guidance.

There are no frictional losses, which is advantageous during the ascent. Inspection and maintenance is simple and accessible.

Thanks to their design, FABA™ systems can be used at temperatures below freezing and can be painted to meet local needs.

The FABA™ A12 steel system is the lightest on the market. This aspect facilitates installation.

The FABA™ systems are available in aluminium, galvanised steel for most applications and stainless steel for applications in aggressive chemical or food processing plants.

Explanation of the symbols used on the following pages:

Material:



galvanized steel



stainless steel



aluminium

Installations: all FABA™ systems must be bolted together, additional installation methods are



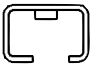
dowelled



welded

Tubular (Steel) Tower

A12



bend ladder

permanent catch

Galv.

Inox

ring bracket

support bracket

Butterfly Door
oppened

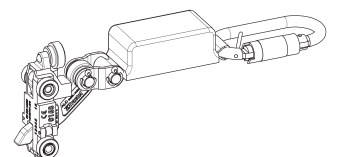
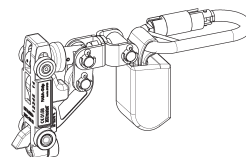
Butterfly Door
closed

Individual adjustment of
mountings on structure

FABA™

FABA™ Slider Grip

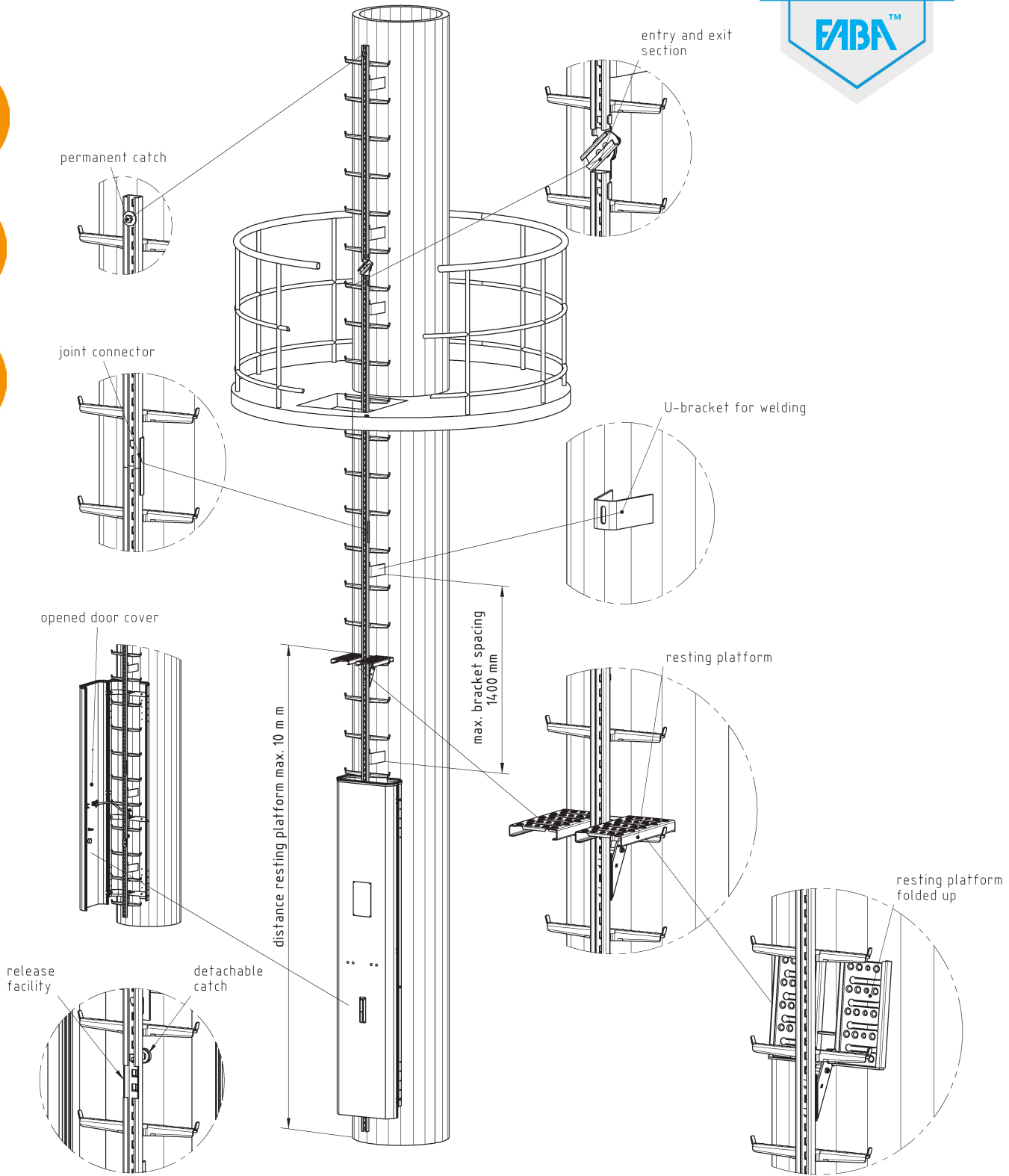
FABA™ Slider AL-D



Tubular (Steel) Tower

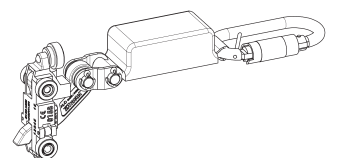
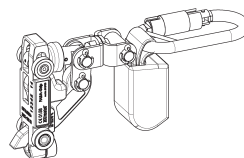


A12



FABA™ Slider Grip

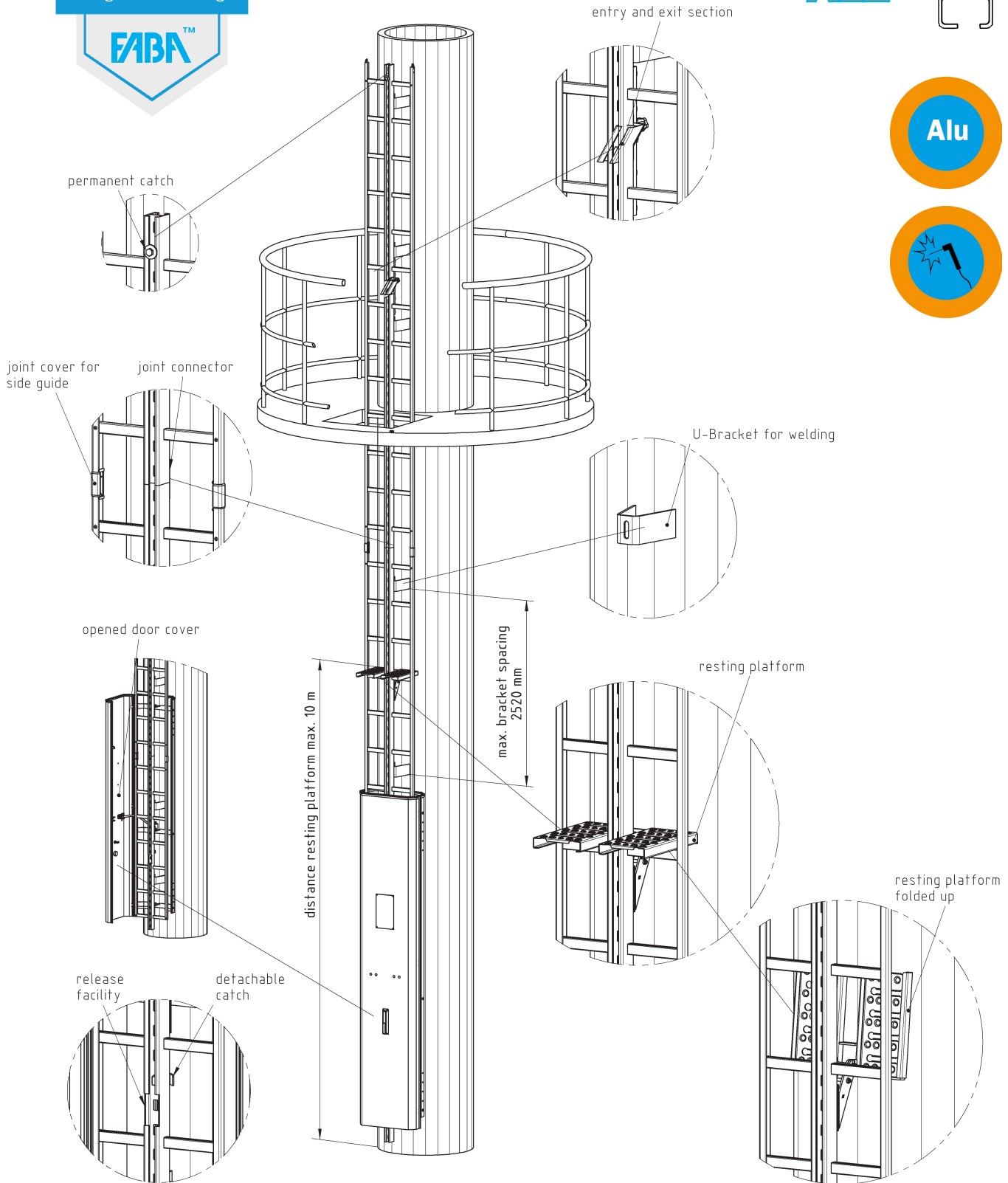
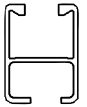
FABA™ Slider AL-D



Tubular (Steel) Tower

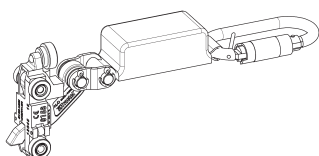
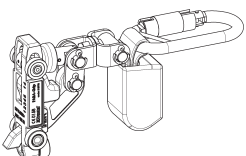


AL2



FABA™ Slider Grip

FABA™ Slider AL-D



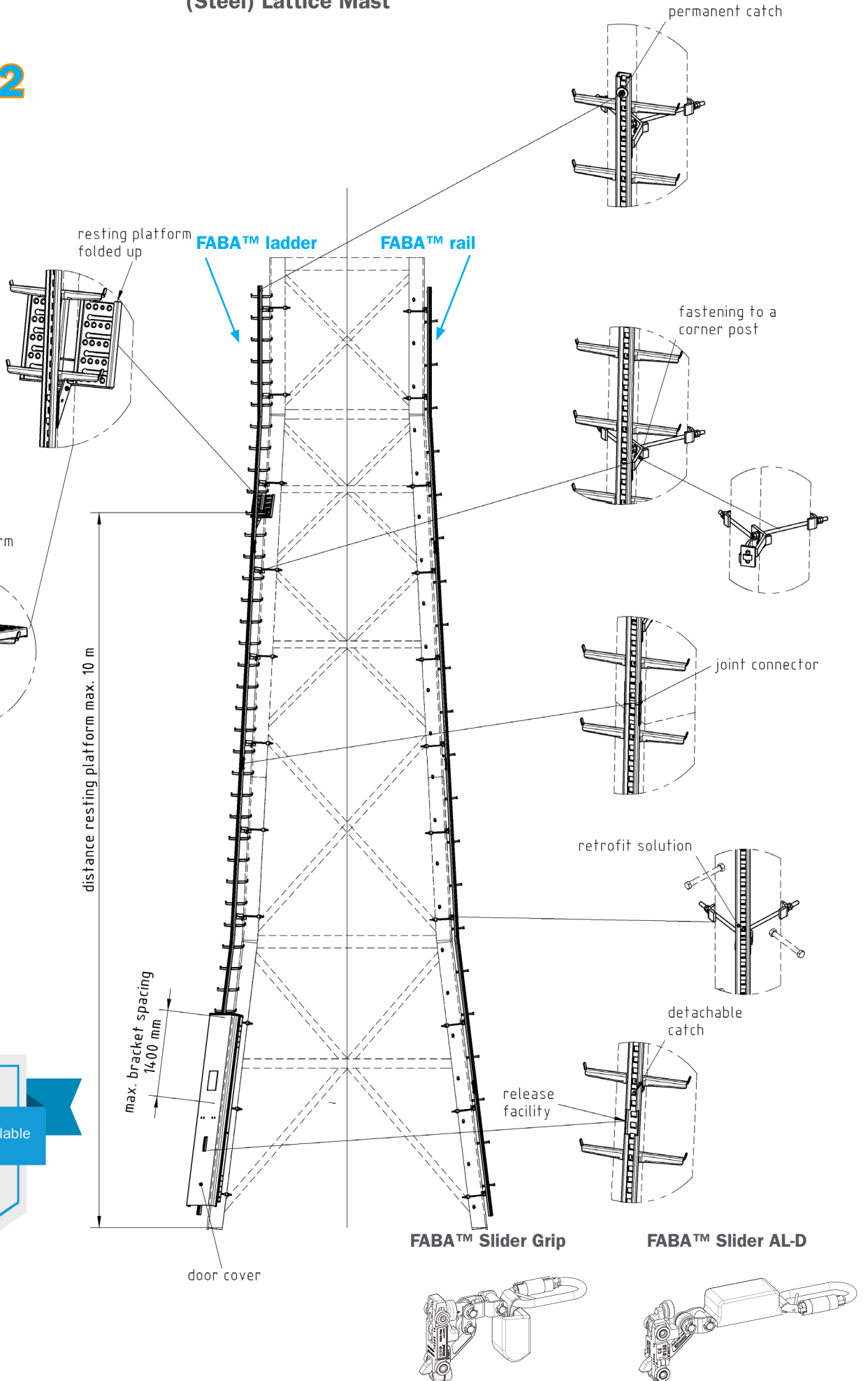
Additional Benefits:

- Easy installation → pre-assembled bolting
- Lower corrodibility compared to galvanized steel
- Lower cost of ownership
- Ergonomic climbing
- Less weight
- Side guide optional

(Steel) Lattice Mast

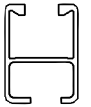
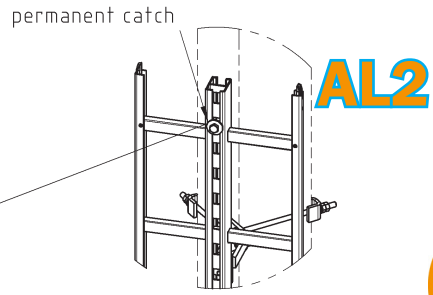


A12

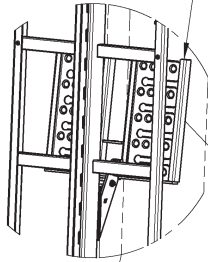


Various length available

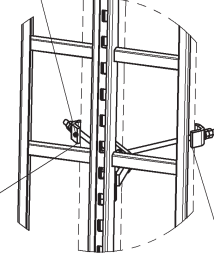
(Steel) Lattice Mast



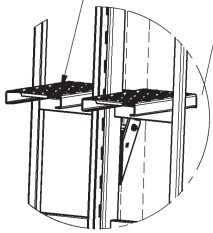
resting platform folded up



fastening to a corner post

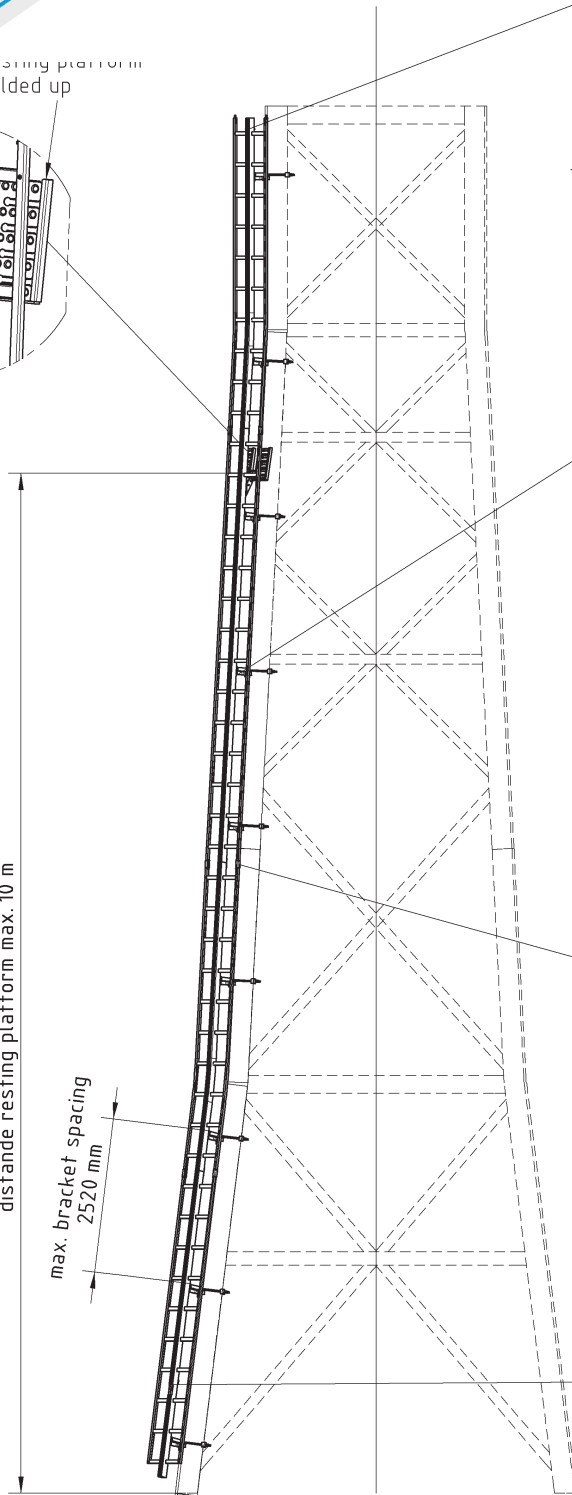


resting platform



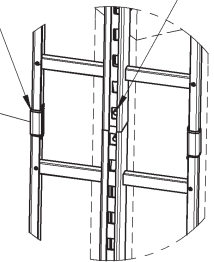
distance resting platform max. 10 m

max. bracket spacing
2520 mm



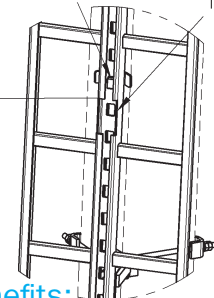
joint cover for side guide

joint connector

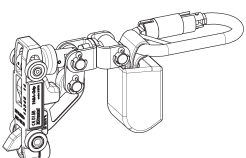


detachable catch

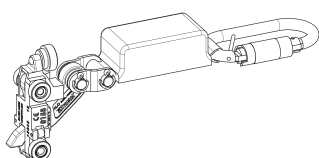
release facility



FABA™ Slider Grip



FABA™ Slider AL-D



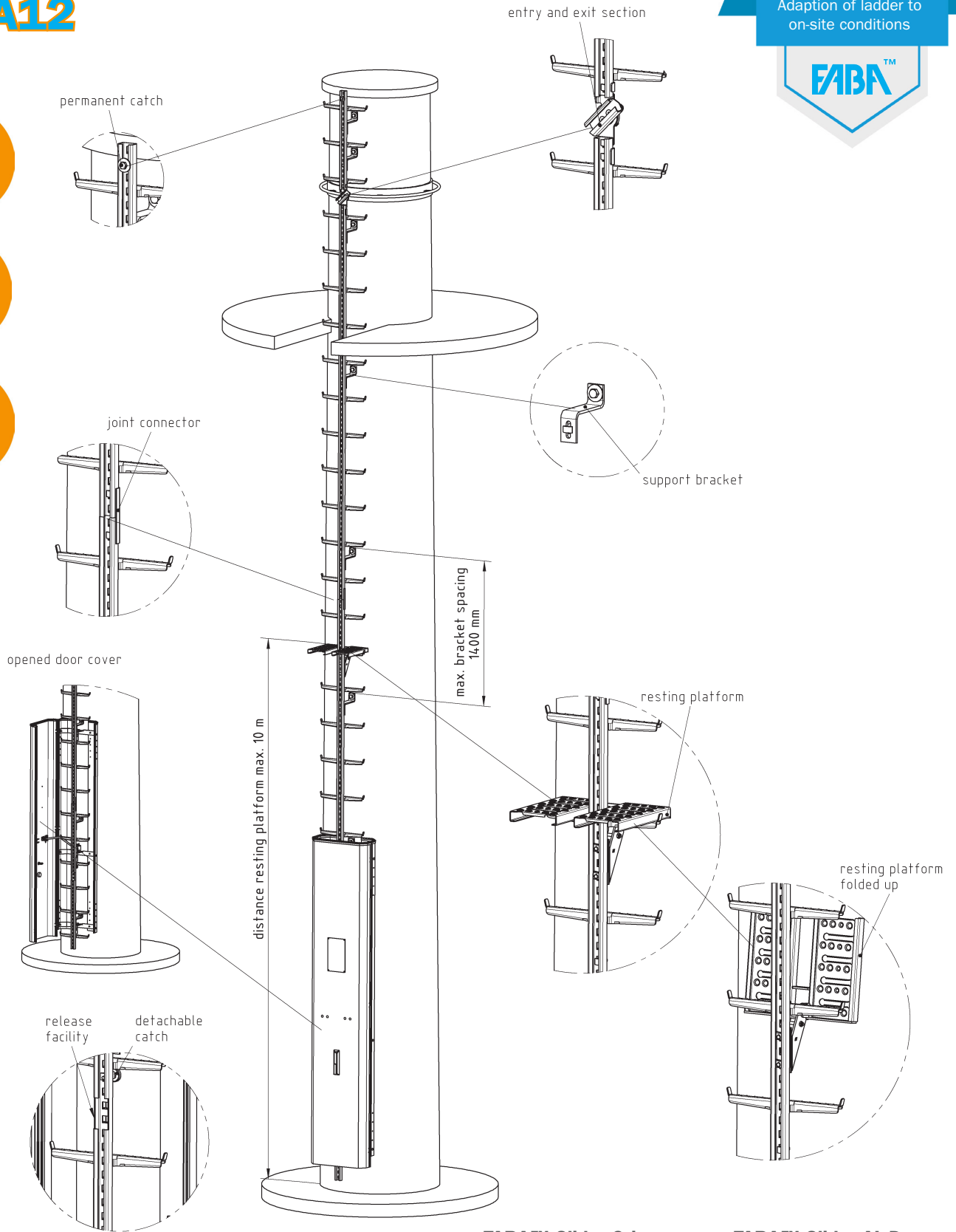
Additional Benefits:

- Easy installation -> pre-assembled bolting
- Lower corrodibility compared to galvanized steel
- Lower cost of ownership
- Ergonomic climbing
- Less weight
- Side guide optional

(Spund) Concrete Mast

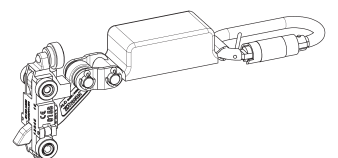
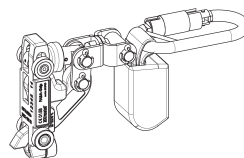


A12



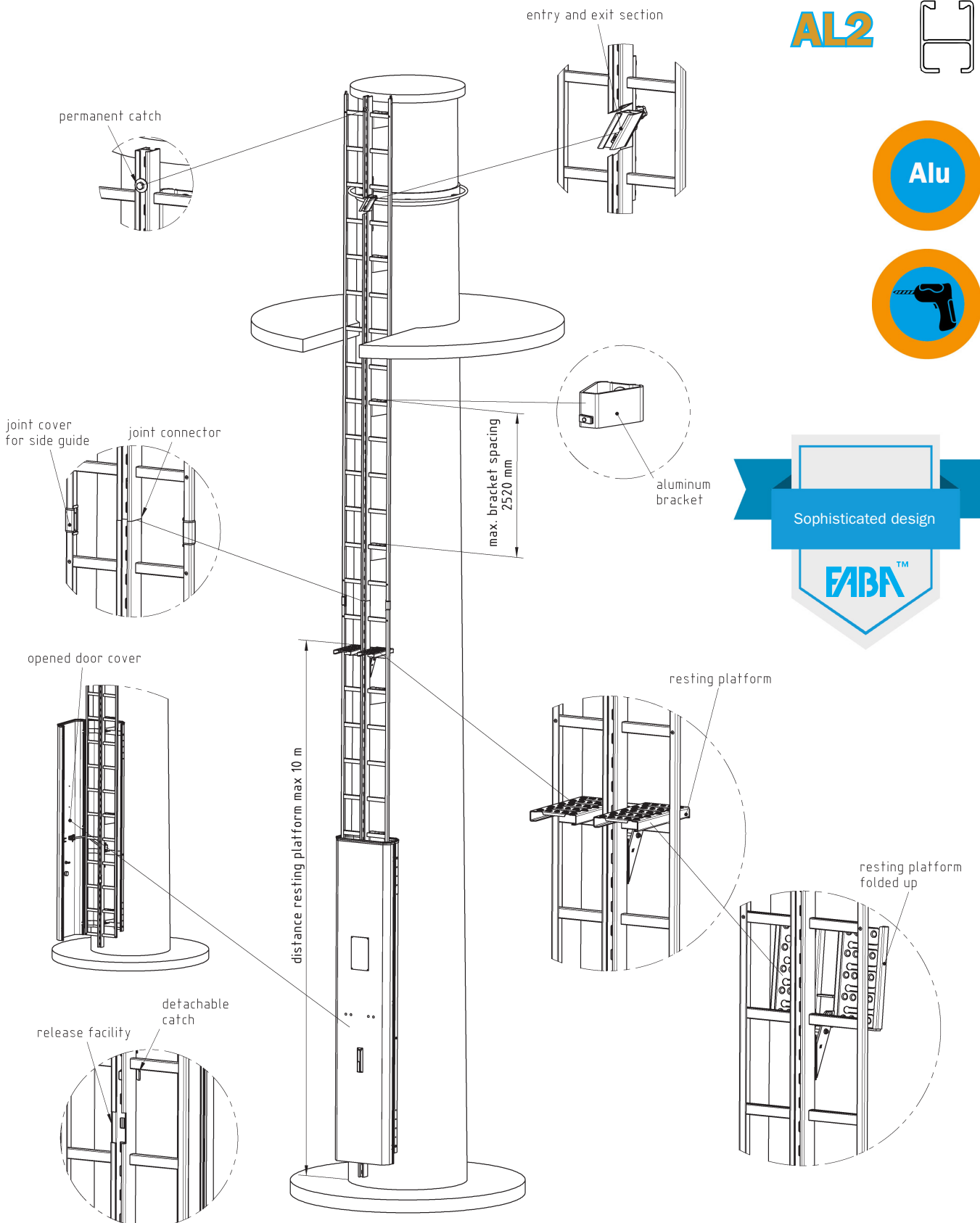
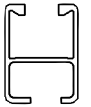
FABA™ Slider Grip

FABA™ Slider AL-D



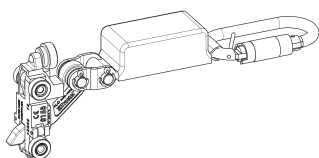
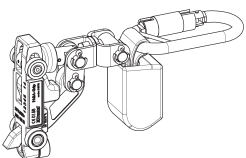
(Spund) Concrete Mast

AL2



FABA™ Slider Grip

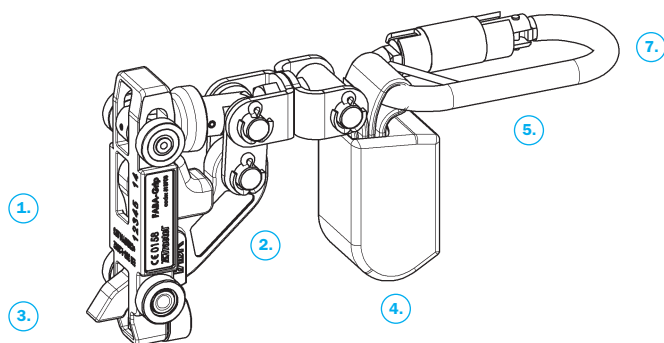
FABA™ Slider AL-D



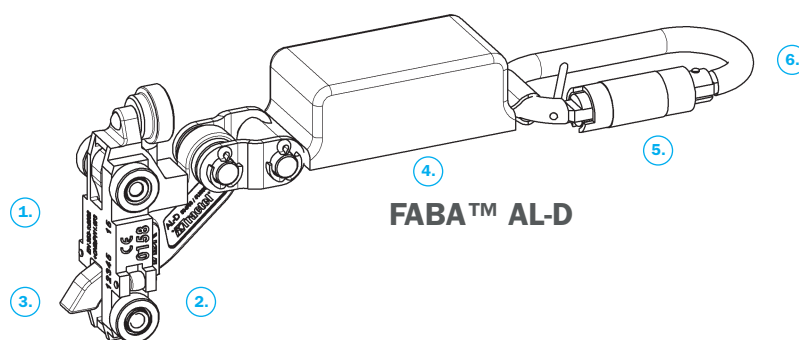
Additional Benefits:

- Easy installation → pre-assembled bolting
- Lower corrodibility compared to galvanized steel
- Lower cost of ownership
- Ergonomic climbing
- Less weight
- Side guide optional

FABA™ Sliders



FABA™ Grip



FABA™ AL-D

1. a) Solid housing of casted/milled aluminium, open design for easy inspection - asymmetric to avoid wrong insertion
 b) Solid housing of casted/milled aluminium, open design for easy inspection - symmetric, the slider is working in both directions
2. Long lasting roller
3. Strong ratchet for a secured triggering into the safety rail
4. Fall and energy absorber ensuring a shock lower than 6 kN
5. Trilock carabiner (Trilock: pulling/rotate/open)
6. Available with standard carabiner as well as with a Trilock carabiner
7. Leaning back function allows the user to rest when required

Climb criteria	FABA™ Grip	FABA™ AL-D
System compatibility - with AL 2 ladders and safety profiles - with A12 ladders and safety profiles	Yes Yes	Yes Yes
Ergonomic on high climbing height (most common applications)	Excellent	Partial
Climbing with leaning back function	Possible	Not possible
Applications with - negative offset of the structure (backward) - positive offset of the structure (forward)	Yes Yes	Yes Yes
Applications with space constraints (for example in manholes)	Possible	Possible
Installations requiring a A12 or AL 2 safety rail positioned on the side of the vertical access track due to insufficient space on the rungs	Not recommended (length of the slider belt ~ 18 cm)	Easy but limited (length of the slider belt ~ 28 cm)

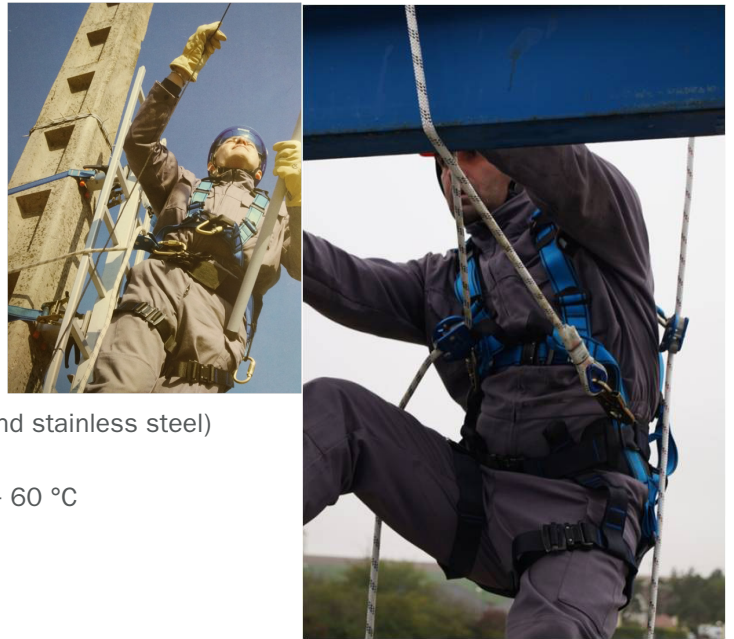
Personal Protection Equipment

Fall arrester stopfor™ P & B

Automatic fall prevention device

Benefits:

- Approved for 150 kg user weight
- Easy to use
- No mishandling possible
- Horizontal (e.g. on flat roofs) and vertical use
- Workplace positioning
- Manufactured without corrosive materials (aluminium and stainless steel)
- Automatic closing with carabiner
- Can be used in the temperature range from - 35 °C to + 60 °C
- Conform to EN 353-2 and EN 358



stopfor™ P



stopfor™ B



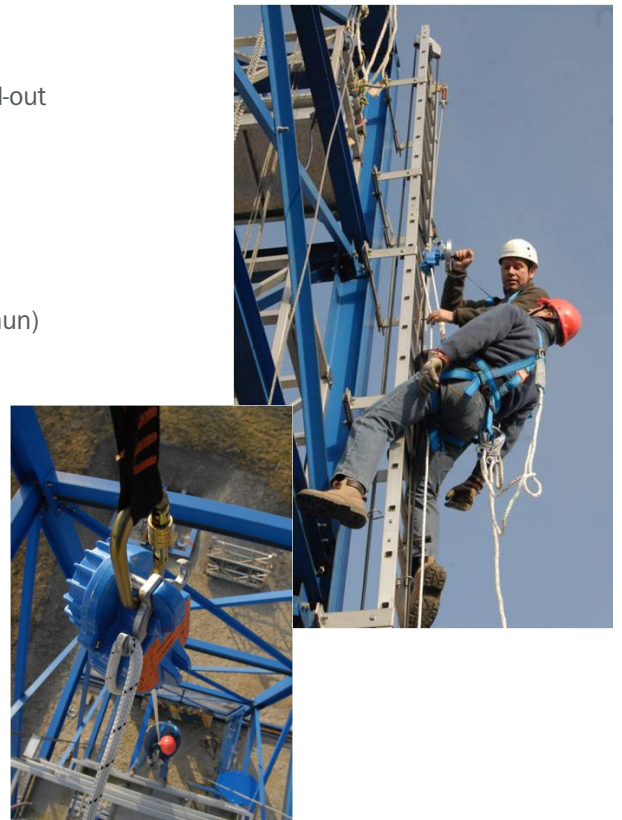
Automatic friction descender derope™

derope™ STD descender with rope clamp and carabiner

derope™ UP A descender with large handwheel as rescue lift and fold-out crank suitable for lifting.

Benefits:

- Approved for max. 150 kg/person
- Heavy duty use
- Can be used with cordless screwdriver (300W, 14V battery minimum)
- Can be used as a rescue device and for work positioning
- Limit of combined descents at 1000 - 3000 m rope length
- Max. descent height for 2 persons (max. 225 kg) is 200 m
- Can be used in the temperature range from - 35 °C to + 60 °C
- Rope lengths according to customer requirements



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Personal Protection Equipment



Technical harnesses of special class for tower builder applications in sizes S, M, XL

Harnesses with Mountaineering-type thigh straps and flexible adjustment buckles. Wearing comfort is supported by the X-PAD™ back pad, can be used in combination with a seat board

HT Promast

- Harness with mountaineering-type thigh straps and flexible adjustment buckles; dorsal anchorage, sternal anchorage and umbilical anchorage; Comfort X-PAD back pad for increased wearing comfort and easy fitting, for standing and suspended work position and support in work position; with automatic buckles and available with Elastrac™ pad
- Can be used in combination with seat board.



HT Secours

- Harness with mountaineering-type thigh straps and flexible adjustment buckles; dorsal anchorage, sternal anchorage, umbilical anchorage and lateral anchorage; Comfort X-PAD back pad for increased wearing comfort and easy fitting, for standing and suspended work position and support in work position; available with automatic or standard buckles
- Can be used in combination with seat board.



HT Electra

- Harness with mountaineering-type thigh straps and flexible adjustment buckles; dorsal anchorage, sternal anchorage and lateral anchorage; Comfort X-PAD back pad for increased wearing comfort and easy fitting, for standing work position and support in work position; with automatic buckles and available with Elastrac™ pad



HT 56

- Harness with mountaineering-type thigh straps and flexible adjustment buckles; dorsal anchorage, sternal anchorage and thoracic anchorage; Comfort X-PAD back pad for increased wearing comfort and easy fitting, for standing work position and support in work position; available with standard or automatic buckles and with Elastrac™ pad



HT Easyclimb

- Harness with mountaineering-type thigh straps and flexible adjustment buckles; dorsal anchorage, sternal anchorage, thoracic anchorage, umbilical anchorage and an umbilical anti fall-back anchorage; Comfort X-PAD back pad for increased wearing comfort and easy fitting, for standing work position and support in work position; with automatic buckles and available with Elastrac™ pad



X-PAD™ Comfort Backrest

The X-Pad option (need to be ordered with the harness) makes the harness easy to slip on with optimum comfort for the wearer.

The other advantages of X-PAD are:

- Sufficient stiffness to hold the harness in shape.
- Very light weight for increased comfort.
- Good ventilation to avoid sweat bath effect.



Personal Protection Equipment



Self-retracting fall arrester device **blocfor™**

Self-retracting fall arrester with textile strap/synthetic rope for vertical and horizontal application

Benefits:

- Annual inspection by a qualified person on site possible, device doesn't have to be sent in
- Simplified maintenance thanks to optimised design
- Less spare parts compared to previous models
- Horizontally and vertically approved according to EN 360
- Automatic winding and unwinding, depending on the movement of user
- 20° deflection from the vertical or horizontal



blocfor™ 1.8A ESD-47-53

- Small fall arrester device with textile strap (15 mm) and a total length of 1,8 m
- With carabiner on strap and pipe hook (MW 50) on housing



blocfor™ 5/6 ESD

- Compact fall arrester device with textile strap (25 mm) in lengths of 5 m or 6 m
- With ESD energy absorber and self-retraction

blocfor™ 10, 20, 30 ESD SR

- Compact fall arrester device with synthetic rope, available in various lengths
- With ESD energy absorber and self-retraction

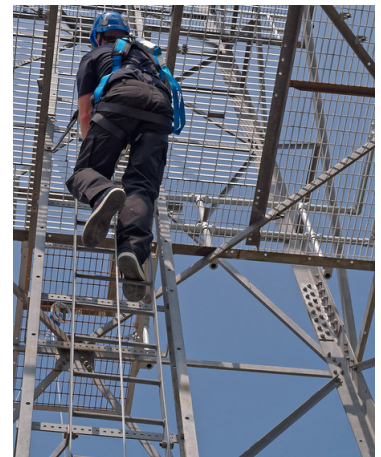
stopcable™

Wire rope fall prevention device

Access to an elevated workplace via a ladder is dangerous. The climbing protection system stopcable™ is used for personal safety during the entire ascent. The system consists of a wire rope guide attached to the structure. A slider runs on this guide and the user is connected with it.

Benefits:

- Easy to assemble with little effort
- Slider can be removed anywhere from the rope
- Approved for 150 kg user weight
- Designed, manufactured and tested according to EN 353-1 und EN 353-2.



Accessories

- Helmet
- Foot slings (against orthostatic shock)
- Straps



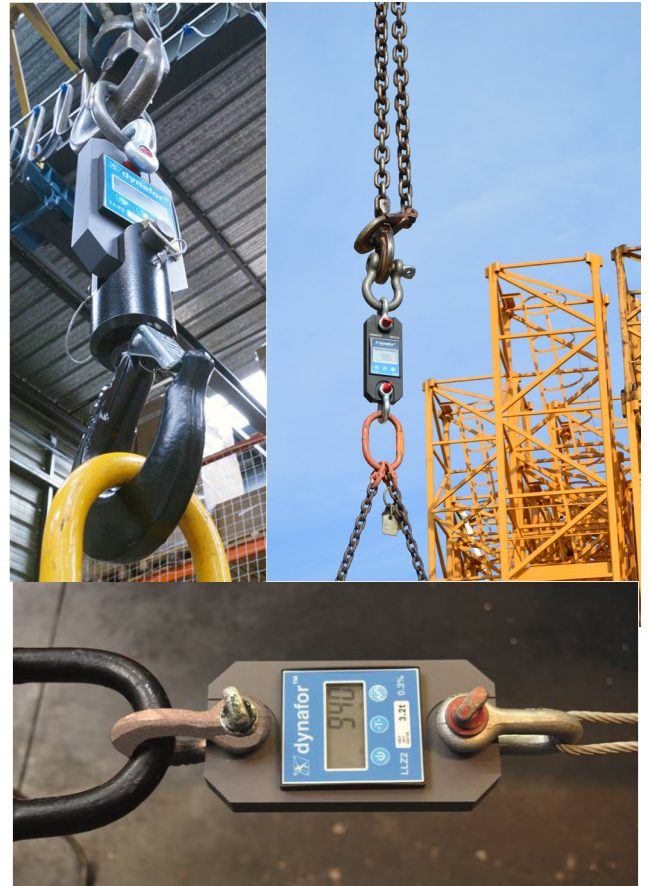
Load Measurement

Load link dynamometer dynafor™

The models of the type dynafor™ are electronic force measuring devices for the measurement of tensile forces (N) and the determination of suspended loads (kg).

Benefits:

- The industrial standard
- Allows for remote reading
- Robust aluminium housing
- Very extensive features
- PC connection via USB port possible
- Monitoring Software is available
- Displaceable including loads
- Used by DEKRA and TÜV



Tensiometer dynarope™

The models of the type dynarope™ are specially designed for measuring the tensile forces on a variety of ropes, which cannot be dismantled.

Application wherever tension forces are measured in tensioned ropes, e.g;

- when setting and trimming towers or antenna masts
- for the installation of overhead lines

Benefits:

- Handy and lightweight
- User friendly
- Quick installation
- For mobile use



Lifting & Handling

Wire rope winch tirfor®

Manual wire rope winch to lift, pull and position loads over great distances

Benefits:

- Lightweight
- No limitation of rope length
- No damage to rope even in demanding use
- 10 % less effort than all other manual wire rope winches
- Very low-wear clamping jaws
- With overload protection
- Quick installation

Also available as manriding models



Motorised wire rope hoist minifor™

Benefits:

- No limitation of rope length
- Load of 100 kg, 300 kg or 500 kg
- Low weight
- Quick installation
- Handy, light, robust and powerful



Steel wire rope tensioner tirvit™

Benefits:

- Low weight
- Handy
- Compact
- Robust
- Ready to use



GLOBAL REACH



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