



PART OF ALIMAK GROUP



Height Safety Guide

for construction applications

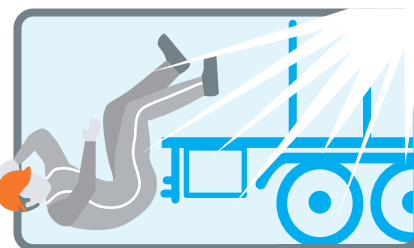
www.tractel.com

The Tractel®'s approach



THE RISKS OF FALLING

Falling from heights is still the main cause of major injury and death in the workplace with a fall happening every 5 minutes.



STANDARDS AND REGULATIONS

- CSA "Canadian Standards Association"
- Provincial regulations
- ANSI "American National Standards Institute"
- OSHA "Occupational Health & Safety Administration"

OBLIGATIONS

Employers must:

- Conduct a work site risk analysis
- Supply the proper height safety equipment for the specific application to meet all the required standards and regulations
- Train employees on the use and care of their height safety equipment

The principles of height safety

**THE DEFINITION
OF THE
SOLUTION**

RISK ANALYSIS

Employers must:

- Ensure that the workplace area and its access are safe
- Analyze and predict possible risks of falling while determining:
 - The falling distance
 - The proper fall protection system to be used
 - The necessary means and methods of rescuing a worker (in case of a fall).

THE ABC OF FALL PROTECTION

ANCHOR POINT



BODY HARNESS

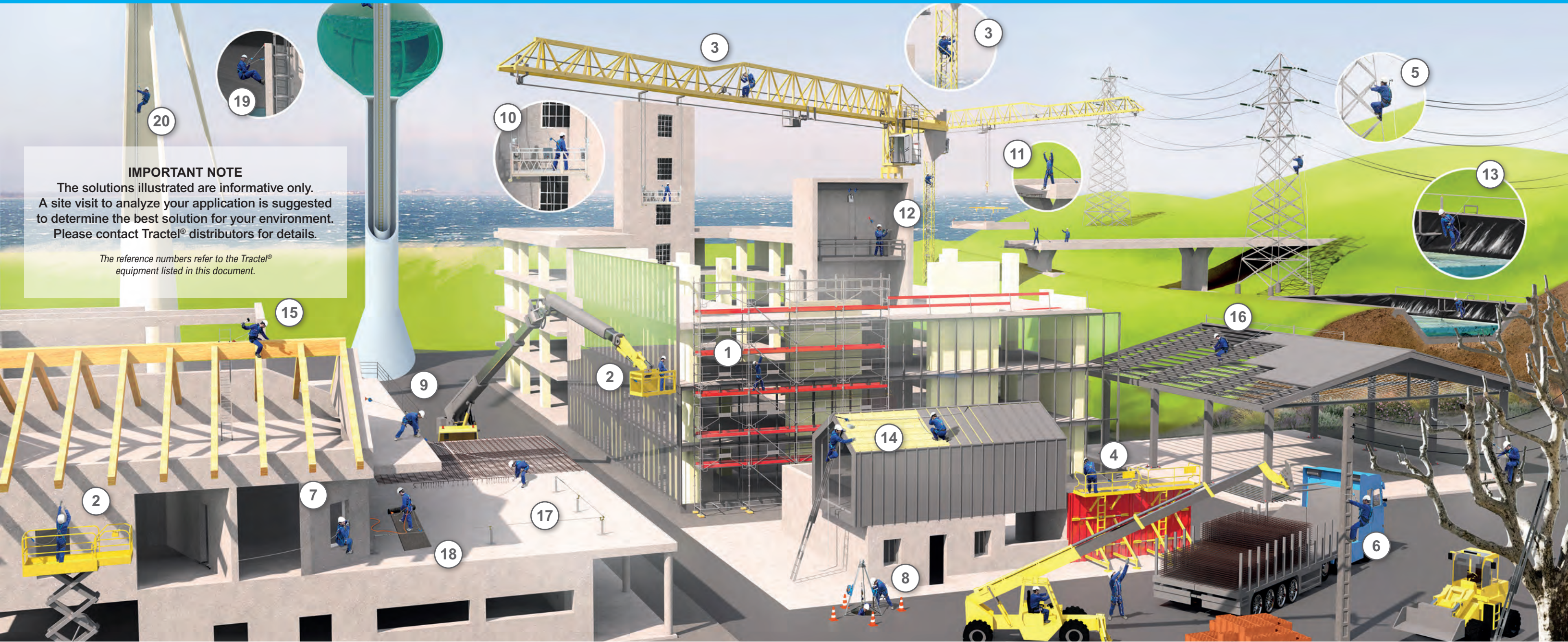


CONNECTING LINK



IMPORTANT NOTE
 The solutions illustrated are informative only.
 A site visit to analyze your application is suggested
 to determine the best solution for your environment.
 Please contact Tractel® distributors for details.

*The reference numbers refer to the Tractel®
 equipment listed in this document.*



HARNESSES



TracX harness
AU732/X

1 18



Fall protection kit
KIT-B01K

2 3



Versafit harness with belt
EBD95L

4 15



Tower TracX harness
FTD13L

5



Rescue harness
FUY119L

6 19



Versafit harness
AC732

7 9 10 11
12 13 14 17



Versafit harness
AD714

8 20



TracX harness with belt
EBD95L/X

16

	APPLICATION	ANCHORAGE	HARNES	CONNECTING LINK
Connectors	① Scaffold erector	Padded sling V4135 3 ft. (0.9 m)	TracX harness AU732/X TracX pad provides extra comfort	TracBloc® 2 self-retracting lanyard TRACBLOC2 8 ft. (2.4 m), two arms, ¼ and 2½ in. (20 and 64 mm) self-locking snap hooks
	② Elevated platform operator	Endless sling V41326 6 ft. (1.8 m)	Basic fall protection kit KIT-B01K Harness with lanyard	Phoenix shock-absorbing lanyard C006K With ¾ in. (20 mm) self-locking snap hooks
Temporary anchors	③ Crane operator	Padded sling V4135 3 ft. (0.9 m)	Basic fall protection kit KIT-B01K Harness with lanyard	Derope® controlled descent device KT7300/AK Easy to use, minimum training required
	④ Formwork	Padded sling V4135 3 ft. (0.9 m)	Versafit harness with belt EBD95L Padded back support belt with side-positioning D-rings	Tracpac high-abrasion shock-absorbing lanyard C106H With ¾ and 2¼ in. (20 and 57 mm) self-locking snap hooks
	⑤ Tower erector	Padded sling V4135 3 ft. (0.9 m)	Tower TracX harness FTD13L Seven-point adjustment	Stopfor® B trailing rope grab with lanyard and lifeline WB58 + GS100NH + C103Z With anti-reversability provided by gravity pin
	⑥ Linesman	Padded sling V4135 3 ft. (0.9 m)	Rescue harness FUY119L The safety harness with superior fit	Stopfor® B trailing rope grab with lanyard and lifeline WB58 + GS100NH + C103Z With anti-reversability provided by gravity pin
	⑦ Carpenter	Anchor bar V62217 For door or window up to 43 in. (1.1 m) wide	Versafit harness AC732 Seven-point adjustment	Stopfor® B trailing rope grab with lanyard and lifeline WB58 + GS100NH + C103Z With anti-reversability provided by gravity pin
	⑧ Sewer technician	Tripod T3F7 7 ft. (2.1 m)	Versafit harness AD714 Retrieval & sternal D-rings	Blocfor® bi-directional self-retracting lifeline T1T50G Can be easily converted to a recovery device
Anchorage points	⑨ Guard-rail installer	Anchorage D-ring V4232 Clearance hole for ½ in. (12 mm) bolt	Versafit harness AC732 Seven-point adjustment	Blocfor® Leading Edge self-retracting lifeline RT50G/LE 50 ft. (15 m) wire rope with leading edge capacity
	⑩ Swing stage work	Tie-back anchor TRS1800 U-bar roof-mounted anchor	Versafit harness AC732 Seven-point adjustment	Stopfor® B trailing rope grab with lanyard and lifeline WB58 + GS100NH + C103Z With anti-reversability provided by gravity pin
	⑪ Mason / Bridge construction	Anchorage D-ring V4232 Clearance hole for ½ in. (12 mm) bolt	Versafit harness AC732 Seven-point adjustment	Blocfor® AES Leading Edge self-retracting lifeline RA30G/LE 30 ft. (9 m) wire rope with leading edge capacity
	⑫ Elevator installer	Anchorage D-ring V4232 Clearance hole for ½ in. (12 mm) bolt	Versafit harness AC732 Seven-point adjustment	TracBloc® self-retracting lanyard TRACBLOC 7 ft. (2.1 m), one arm, ¼ in. (20 mm) self-locking snap hooks
	⑬ Water technician	Anchorage D-ring V4232 Clearance hole for ½ in. (12 mm) bolt	Versafit harness AC732 Seven-point adjustment	Stopfor® B trailing rope grab with lanyard and lifeline WB58 + GS100NH + C103Z With anti-reversability provided by gravity pin
Temporary systems	⑭ Roofer	Tempo III temporary HLL system H66500 With integral carabiner	Versafit harness AC732 Seven-point adjustment	Tracpac high-abrasion shock-absorbing lanyard C103Z 3 ft. (0.9 m), with ¾ in. (20 mm) self-locking snap hooks
	⑮ Wood frame work	Roof anchor 428103S Heavy-duty hinged D-ring	Versafit harness with belt EBD95L Padded back support belt with side-positioning D-rings	Tracpac high-abrasion shock-absorbing lanyard C106Z 6 ft. (1.8 m), with ¾ in. (20 mm) self-locking snap hooks
	⑯ Steel erector	BeamSlide sliding beam anchor V5002 Fits I-beam from 4 to 14 in. (10 à 35 cm)	TracX harness with belt EBD95L/X With tool belt and side-positioning D-rings	Tracpac high-abrasion shock-absorbing lanyard C106H 6 ft. (1.8 m), with ¾ and 2¼ in. (20 and 57 mm) self-locking snap hooks
Permanent HLL systems	⑰ Formwork	Travsmart permanent HLL system JK-SMSEA3-100 Single-cable horizontal lifeline system	Versafit harness AC732 Seven-point adjustment	Blocfor® B20 web self-retracting lifeline RT20WC8 20 ft. (6 m) webbing with impact-indicating snap hook
	⑱ Sealer	Travsmart permanent HLL system JK-SMSEA3-100 Single-cable horizontal lifeline system	TracX harness AU732/X TracX pad provides extra comfort	Blocfor® AES Leading Edge self-retracting lifeline RA30G/LE 30 ft. (9 m) wire rope with leading edge capacity
Ladder systems	⑲ Water tower maintenance	Stopcable® ladder safety system L1T8300/1 Adjustable on most permanent ladders	Rescue harness FUY119L The safety harness with superior fit	Derope® controlled descent device KT7300/AK Easy to use, minimum training required
	⑳ Wind turbine technician	Stopcable® ladder safety system L1T8300/1 Adjustable on most permanent ladders	Versafit harness AD714 Retrieval & sternal D-rings	Derope® controlled descent device KT7300/AK Easy to use, minimum training required

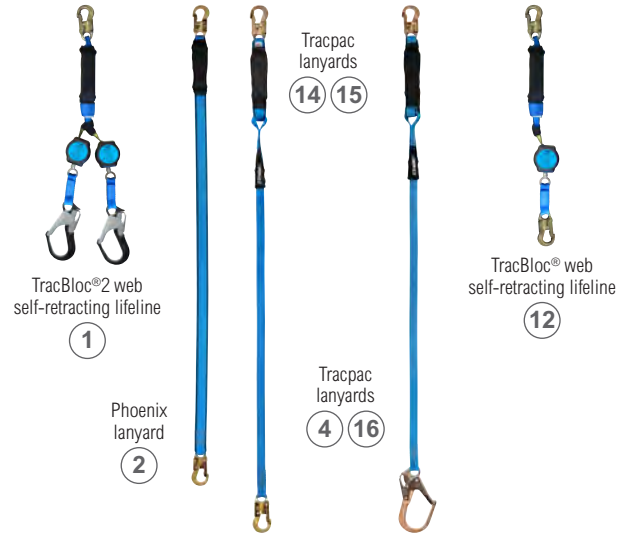
ANCHORAGE

ANCHORAGE CONNECTORS



CONNECTING LINK

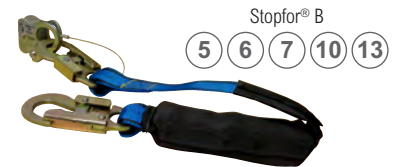
LANYARDS



TEMPORARY SYSTEMS



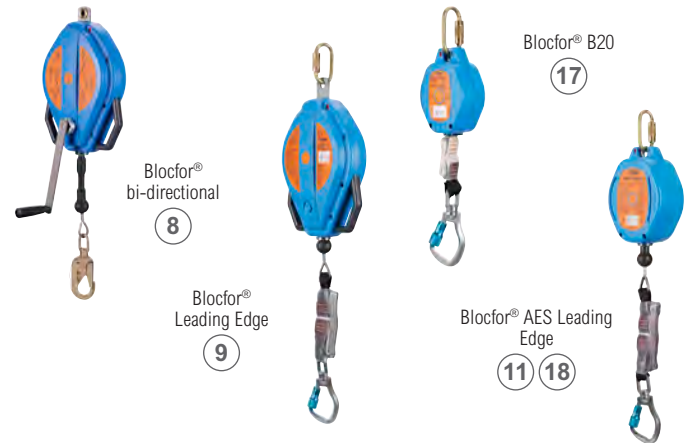
ROPE GRABS



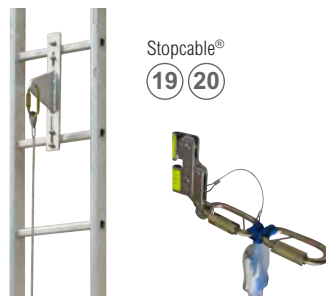
PERMANENT HLL SYSTEMS



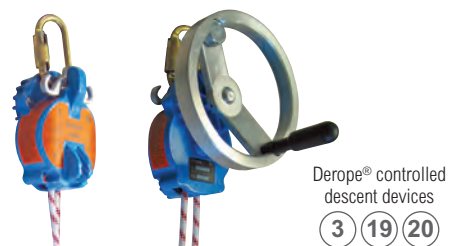
SELF-RETRACTING LIFELINES



LADDER SAFETY SYSTEMS



CONTROLLED DESCENT DEVICES



HEIGHT SAFETY GUIDE

for construction applications

Choose the proper equipment for the work application

Fall clearance

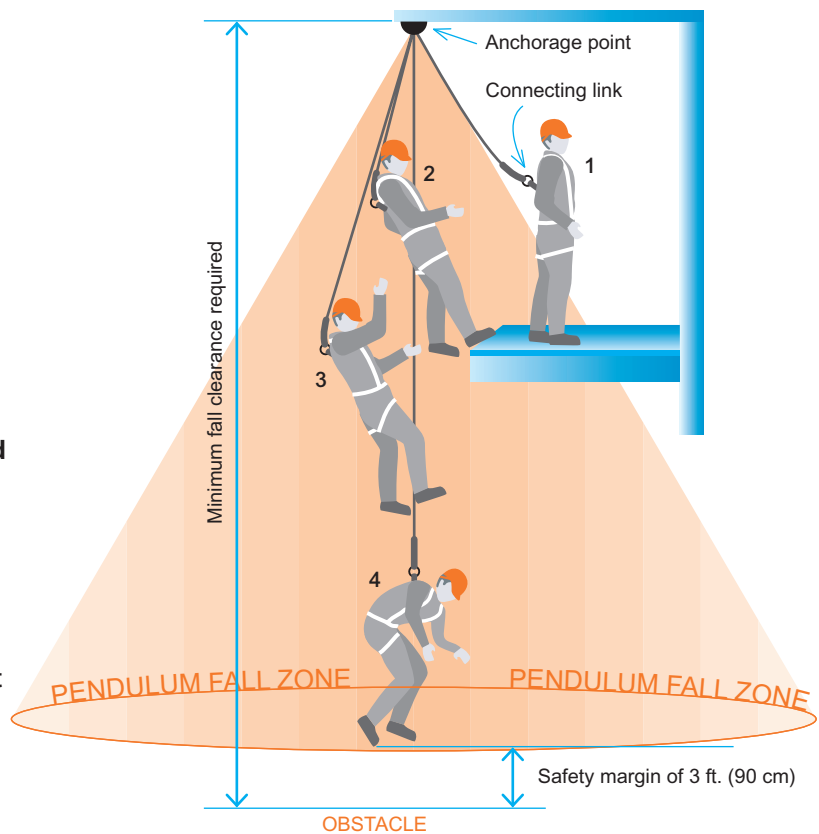
The fall clearance must be verified before starting to work and buying height safety equipment. It is specific to the available distance of the work area.

Calculating the necessary fall clearance:

- Free fall distance
- + Deployment of energy absorber
- + Displacement of back D-ring
- + Height of worker
- + Safety factor/distance
- = **Minimum fall clearance required**

The pendulum effect:

It is a regular phenomenon caused by the fall of the worker with an angle distanced from the vertical of the anchor point. Depending on the available space, this effect must be taken into consideration in the complete fall protection solution and the limitation of the work area. All this space below the work area should be free of any obstacle that may cause harm or injury to the worker.



The proper height safety products must be chosen in reference to the work environment, work application and use as described in the products' instruction manuals.

Training on the different height safety products and systems is necessary.