Tractel

PART OF ALIMAK GROUP

Height Safety Guide

for construction applications

www.tractel.com

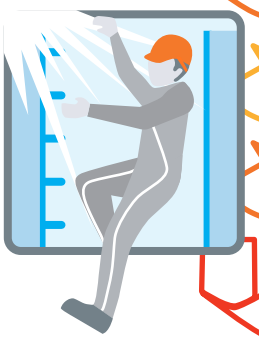
The Tractel®'s approach

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

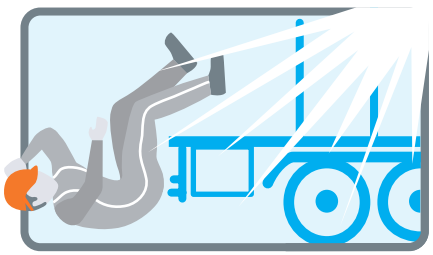
- CSA "Canadian Standards Association"
- Provincial regulations
- ANSI "American National Standards Institute"
- OSHA "Occupational Health & Safety Administration"



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.

HARNESS

							
TracX harness AU732/X	**Fall protection kit** KITC-B01K/L	**Versafit harness with belt** EBD95L	**Tower TracX harness** FTD13L	**Rescue harness** FUY119L	**Versafit harness** AC732	**Versafit harness** AD714	**TracX harness with belt** EBD95L/X
1 18	2 3	4 15	5	6 19	7 9 10 11 12 13 14 17	8 20	16

		APPLICATION	ANCHORAGE	HARNESS	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, ¾ and 2½ in. (20 and 64 mm) self-locking snap hooks
Temporary anchors	2	**Elevated platform operator**	**Endless sling** V41326 6 ft. (1.8 m)	**Basic fall protection kit** KITC-B01K/L or KITC-B01K/S Harness with lanyard	**Phoenix shock-absorbing lanyard** C006K/L or C006K/S With ¾ in. (20 mm) self-locking snap hooks
	3	**Crane operator**	**Padded sling** V4135 3 ft. (0.9 m)	**Basic fall protection kit** KITC-B01K/L or KITC-B01K/S 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/L or C106H/S 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** D5B02K/1 + GS100NH 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** D5B02K/1 + GS100NH 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** D5B02K/1 + GS100NH 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** D5B02K/1 + GS100NH 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	**ReTrac self-retracting lanyard** RY11W 11 ft. (3.3 m), one arm, ¾ in. (20 mm) self-locking snap hook
	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** D5B02K/1 + GS100NH 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/L or C103Z/S 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/L or C106Z/S 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/L ou C106H/S 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

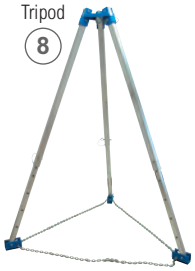
ANCHORAGE

ANCHORAGE CONNECTORS

Endless sling
2

Padded sling
1 3
4 5 6

Tripod
8



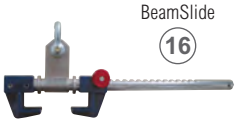
Anchor bar
7

Tie-back anchor
6

Anchorage D-ring
9 11
12 13

Roof anchor
15

BeamSlide
16



TEMPORARY SYSTEMS

Tempo III
14

PERMANENT HLL SYSTEMS

Travsmart
17 18

LADDER SAFETY SYSTEMS

Stopcable®
19 20

CONNECTING LINK

LANYARDS

TracBloc®2 web self-retracting lifeline
1

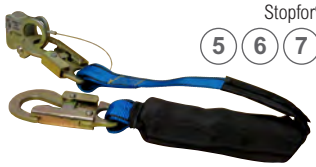
Phoenix lanyard
2

Tracpac lanyards
14 15

Tracpac lanyards
4 16

TracBloc® web self-retracting lifeline
12

ROPE GRABS



Stopfor® B
5 6 7 10 13

SELF-RETRACTING LIFELINES

Blocfor® bi-directional
8

Blocfor® Leading Edge
9

Blocfor® B20
17

Blocfor® AES Leading Edge
11 18

CONTROLLED DECENT DEVICES

Derope® controlled descent devices
3 19 20

HEIGHT SAFETY GUIDE
for construction applications

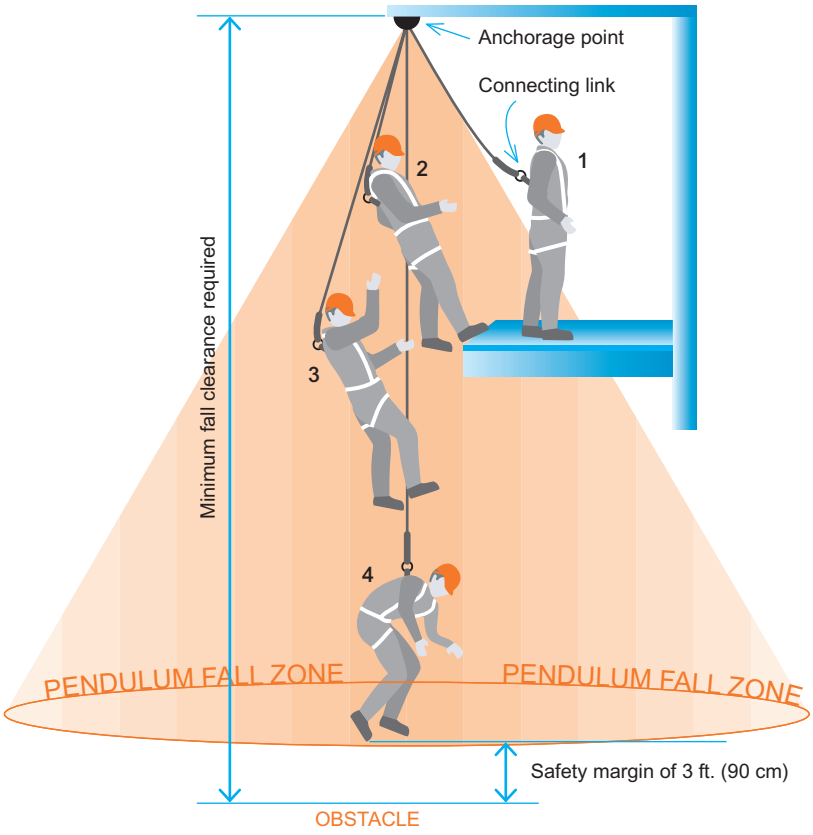
Choose the proper equipment for the work application

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.

Tractel
PART OF ALIMAK GROUP

HOUSTON
1-800-421-0246
tractel.usa@alimakgroup.com

LOS ANGELES
1-800-675-6727
tractel.usa@alimakgroup.com

MONTREAL
1-800-561-3229
tractel.canada@alimakgroup.com

www.tractel.com