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Lifeline

11/2015

Lesson nr 6 of 7

1° Fall arrest system
2° Anchor points
3° Confined Space
4° Rope Access
5° Rescue
6° Lifeline
7° Inspection

Index

- **Lifeline introduction**
- LV201 SPEEDLINE
- SPIDERLINE III
- SPIDERLINE II

LIFELINE

If we connect 2 or more anchor points we obtain a **LIFELINE** which is usefull to work on a huge space without disconnecting the Fall Arrest System.

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LIFELINE

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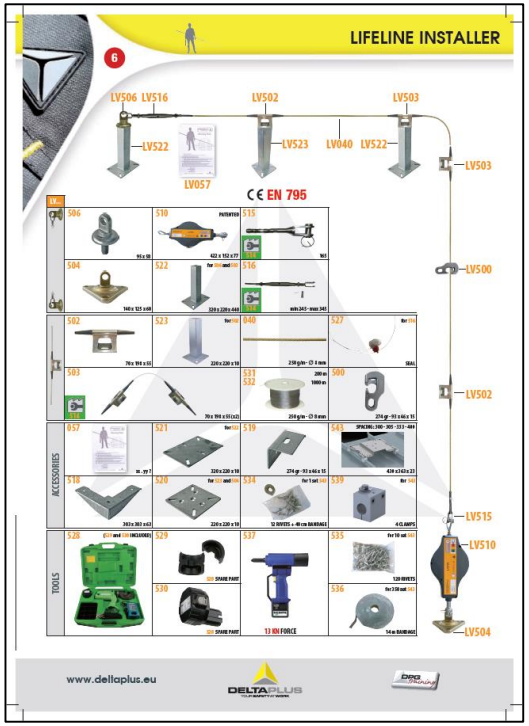
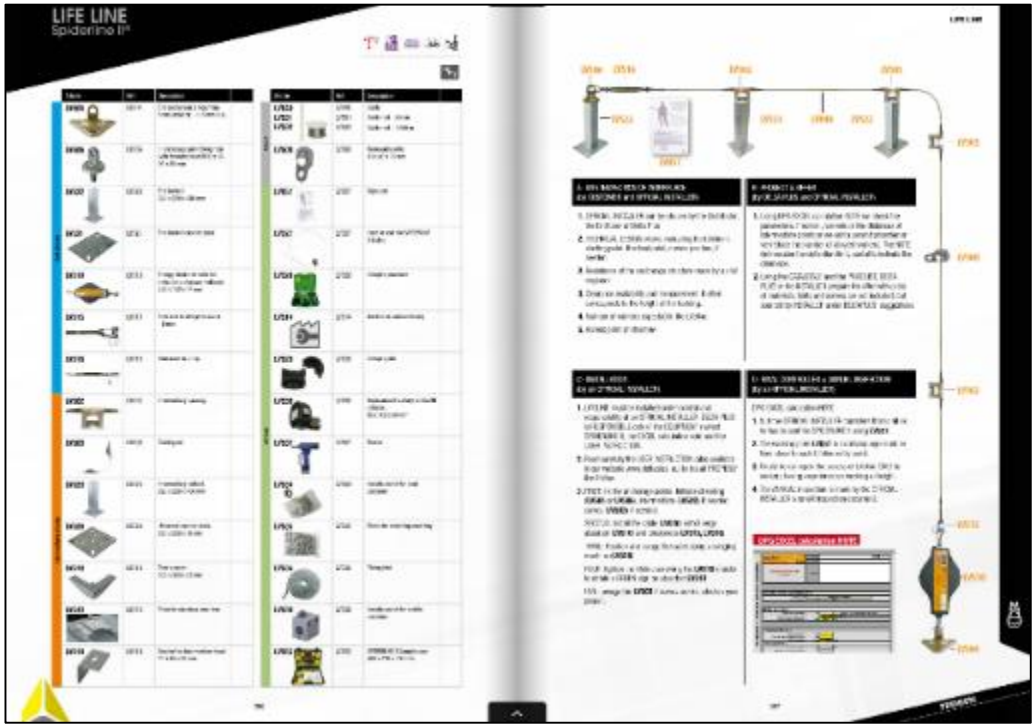
LIFELINE

You can follow this "LIFELINE Lesson" on our **TECHNOGUIDE** at page 7 or on our **CATALOGUE** at pages 386 and 387:





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LIFELINE

The European Standard EN795 considers 2 types of lifelines:

TYPE C = with flexible cable

TYPE D = with rail

Our 2015 LIFELINES range is:

TYPE	ITEM NAME	LENGTH	CHARACT.	MATERIAL
C	LV201 SPEEDline	20m	TEMPORARY	WEBBING
C	SPIDERLINE II	UNLIMITED	FIXED	INOX CABLE

Our 2016 LIFELINES range will add:

TYPE	ITEM NAME	LENGTH	CHARACT.	MATERIAL
C	SPIDERLINE III	30m	FIXED	INOX CABLE
C	LV301 CABLEline	12m	TEMPORARY	INOX CABLE
C	GPSline	UNLIMITED	FIXED	INOX CABLE
D	T-REXline	UNLIMITED	FIXED	ALU RAIL
C	SPIDERLINE IV *	UNLIMITED	FIXED	INOX CABLE

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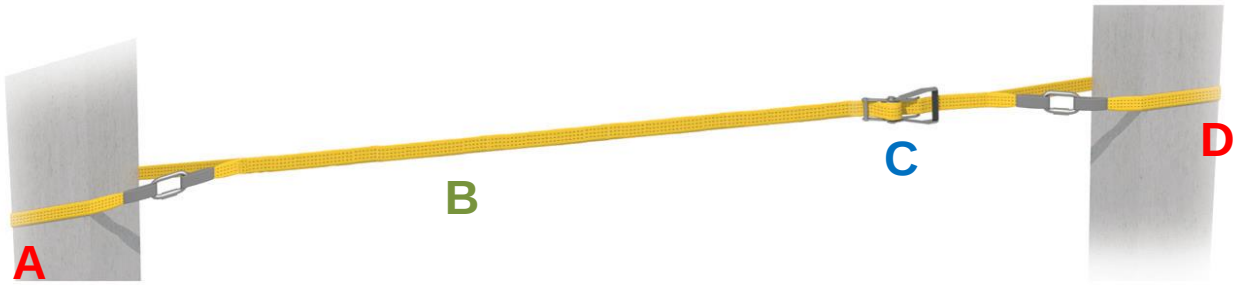
* SPIDERLINE IV will replace SPIDERLINE II

Index

- Lifeline introduction
- **LV201 SPEEDLINE**
- SPIDERLINE III
- SPIDERLINE II

LV201 SPEEDLINE



It is composed of 4 elements:

- A and D are 2 anchor points. Using 2 carabiners AM002 they can be connected to a post
- B is a 35mm webbing, lenght 18m
- C is a tensioner and length regulator. The lifeline is 2,5m min and 20m max, including anchorages A and D

adapted for 2 people

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⚠ WARNING !

In case of fall of a person attached to a lifeline, it is necessary to consider a DOUBLE clearance:

1. **Clearance of your fall arrest device** (for example using an energy absorber in F0 = 2m)

+

2. **Clearance of the lifeline** that is flexible. Ex.: 3m. All the data will be available in our U.I.(User Instruction).

1.+2. Total clearance. In our example is: 2 + 3 = 5 meters

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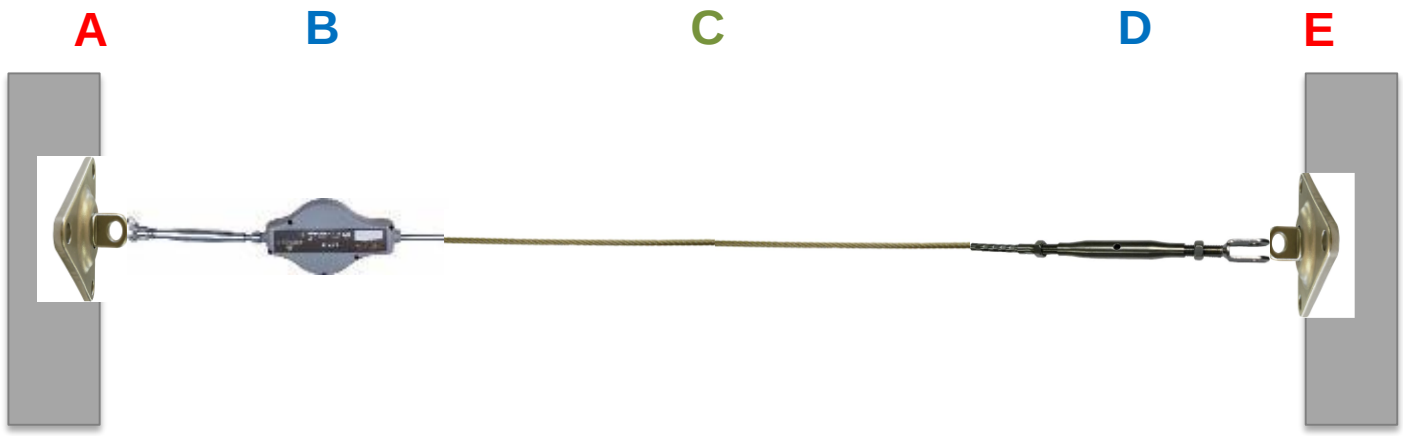
YOUR SAFETY AT WORK

Index

- Lifeline introduction
- LV201 SPEEDLINE
- **SPIDERLINE III**
- SPIDERLINE II

SPIDERLINE III

It is our **simplest** fixed cable lifeline system:



A	B	C	D	E
LV504 (or **LV506**)	**LV511**	**LV040**	**LV516**	**LV504** (or **LV506**)
Starting point	Absorber	Cable	Tensioner	Ending point

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A / E Starting and Ending Point

 LV504	• Stainless steel anchor point • 3 holes • Weight: 1kg
 LV506	• Stainless steel anchor point • 1 fixing hole • Weight: 430 gr

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SPIDERLINE III

A / E Starting and Ending Point on a post

LV504 LV506

LV506
Anchor point

LV522
End post

LV521
Counter plate for end post

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SPIDERLINE III

B Absorber	C Cable	D Tensioner
LV511	LV040	LV516

B  LV511	• Stainless steel **ENERGY ABSORBER** with ABS carter • Size: 42 x 15 x 8 cm
C  LV040	• Stainless steel **WIRE ROPE** • Composed of 7 strands of 19 wires • ∅ 8 mm • Weight: 250 g/ml  
D  LV516	• Stainless steel tensioner to swage • Length: from 25 to 35 cm • Weight: 1 kg

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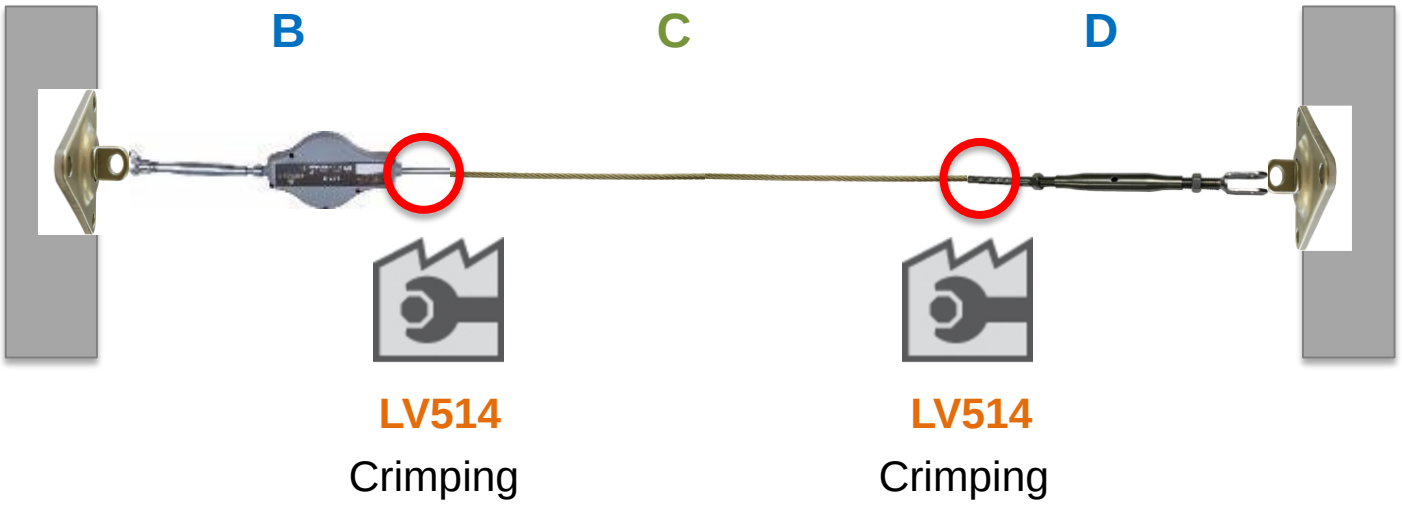
SPIDERLINE III

The 3 components have to be crimped together:



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SPIDERLINE III

LV514
Crimping

LV514
Crimping

These 2 swaged points are made using a specific tool, a **swaging machine** available for sale or for rent.
Spare parts of this machine are also available.

LV528
Swaging machine

Spare parts:

LV529
Crimping die matrix

LV530
Spare battery

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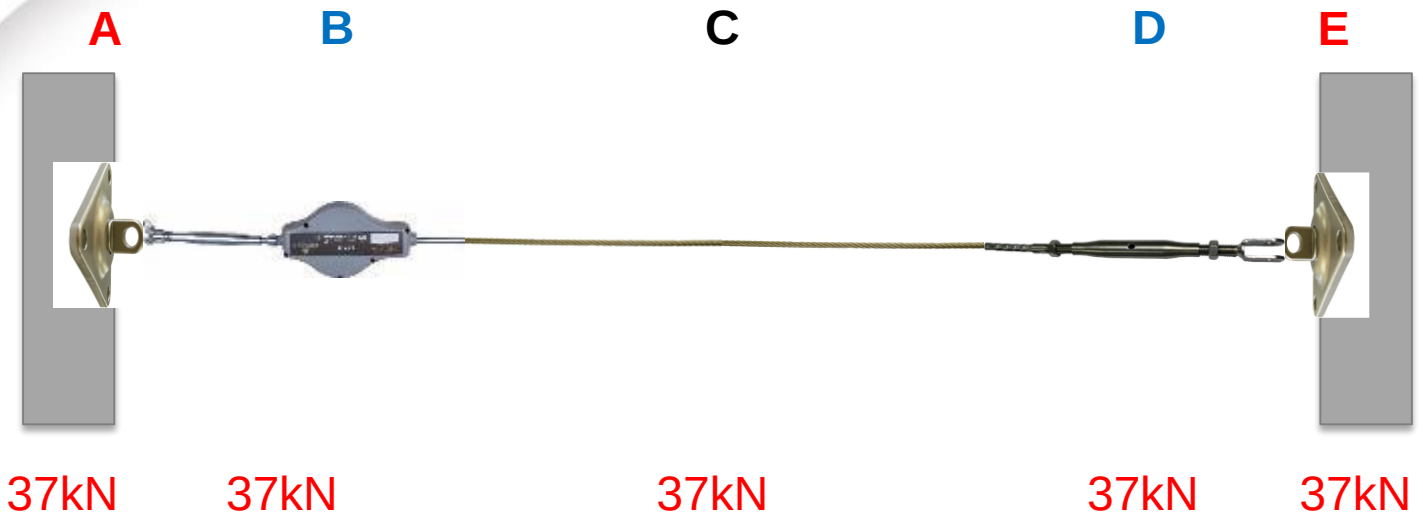
SPIDERLINE III



The maximum load of our lifeline is 37 kN: very resistant for it.
The only limit depends on the material the structure is made of: concrete, metal, wood or other.

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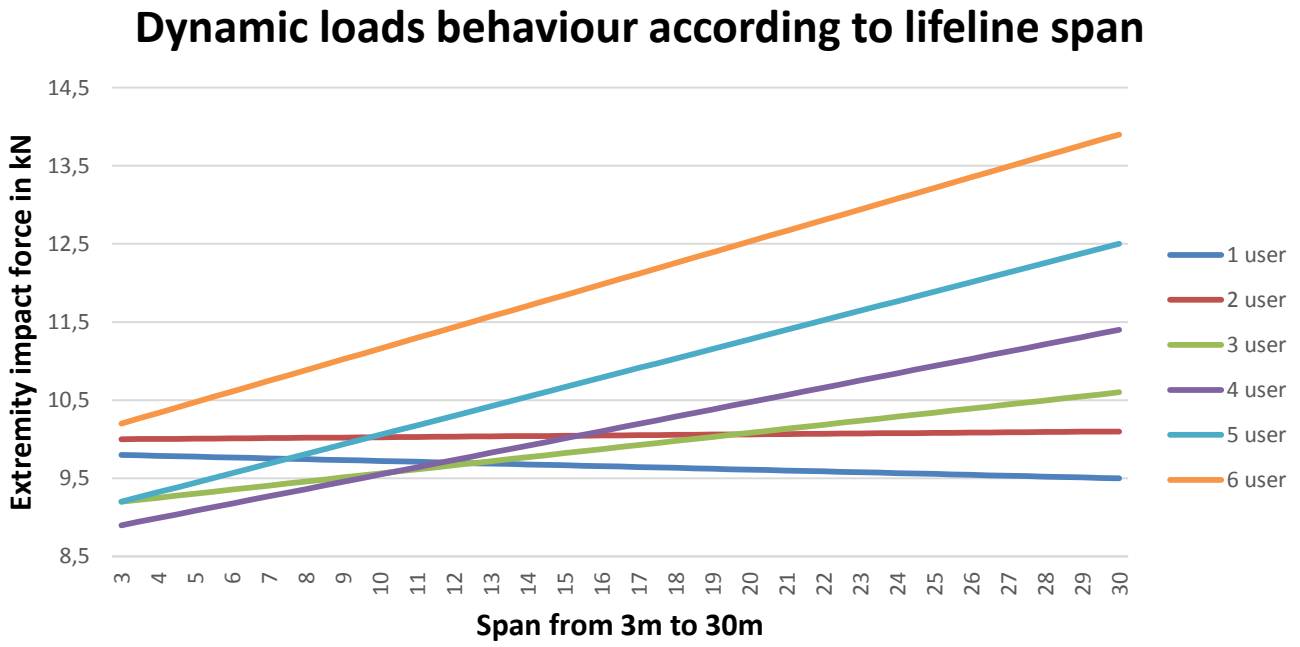
SPIDERLINE III

The minimum structural resistance permitted is shown in a diagram on our U.I. with the following parameters:

- Number of people: from 1 to 6
- Length of the lifeline: from 3 m to 30 m



This performance is normally assured in case of CONCRETE or METAL structure.

In other cases and in case of doubts, you need an official advice from an engineer.

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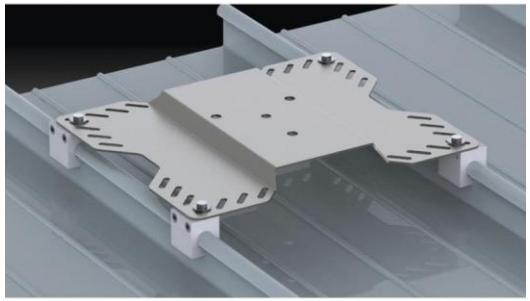
A / E Starting and Ending Point on metallic roof

It can be fixed to a metal roof. In this case you need a specific plate and a customised offer to control the real resistance of the roof.



LV543

Plate for metal roof

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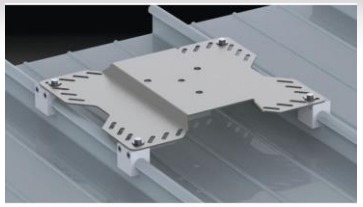
A / E Starting and Ending Point on metallic roof



LV543

It is necessary to have a **RIVET MACHINE** to fix the plate LV543 to a metal roof. But, because of different types of roofs, you need a technical support of an expert.

LV537
Rivet machine

LV535
Spare rivets

LV534
Fixing kit (for metal roof)

LV536
Fixing joint

LV539
Fixing kit (for standing seam roof)

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SLIDERS / CONNECTORS

All carabiners certified **EN362 Class A** and **B** are adapted for this lifeline:

A anchor carabiners	 LV401	 AM022	 AM009	 AM027	 AM030
B basic carabiners	 AM002	 AM025	 AM018		

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⚠ WARNING !

In case of fall of a person attached to a lifeline, it is necessary to consider a DOUBLE clearance:

1. **Clearance of your fall arrest device** (for example using an energy absorber in F0 = 2m

+

2. **Clearance of the lifeline** that is flexible. Ex.:

3m span, 4 users = **4m clearance**

All the data are available in our U.I.(User Instruction).

1.+2. Total clearance. In our example is: 2 + 4 = 6 meters

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Final Instructions !

When the SPIDERLINE III is installed, the **Delta Plus Official Installer** has to control and regulate the tensioner, assure the starting points, control that each starting point has a LV057 as warning panel, seal the lifeline with the lead LV527.

So the SPIDERLINE III becomes available for all workers who have experience on work at height.

LV057

Information panel

LV527

Lead to seal the lifeline

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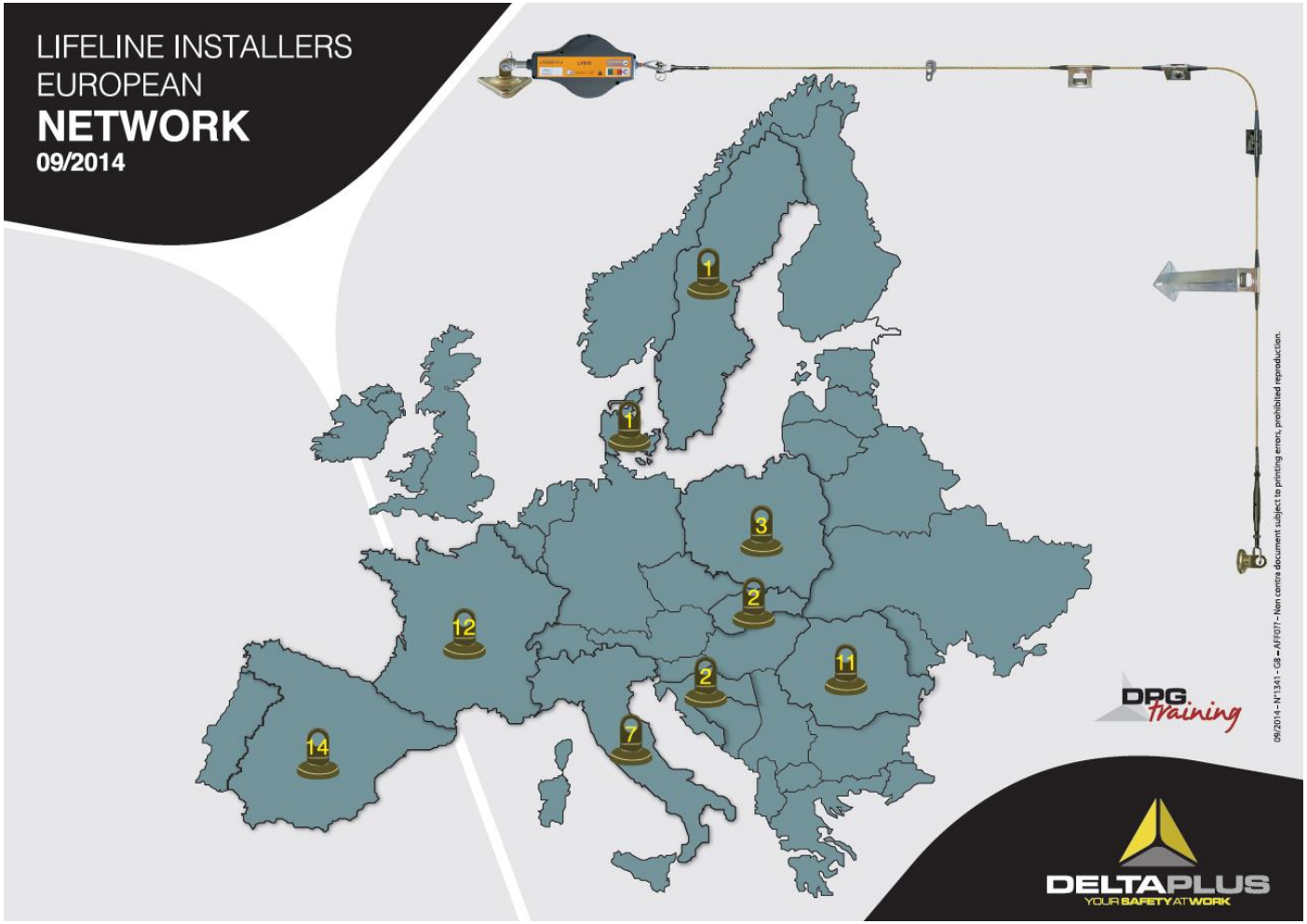
SPIDERLINE III

Our Installer Network in Europe, at the beginning of 2016, is composed of more than 53 Installers



DELTAPLUS
YOUR SAFETY AT WORK

Index

- Lifeline introduction
- LV201 SPEEDline
- SPIDERLINE III
- **SPIDERLINE II**

SPIDERLINE II

Introduction

SPIDERLINE II is a multi span lifeline. It is still available, but during 2016 it will be replaced by

SPIDERLINE IV

which will have better performances.

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SPIDERLINE II

SPIDERLINE II has the similar functions as SPIDERLINE III but:

- It can have intermediate points and curves, so the length is unlimited
- Each span, including the first one, has a MAXIMUM length of only **12m**
- It is tested ONLY to the old standard EN 795:**1996** A1:2000 Class C
- You can use **ONLY** the slider LV500 
- You have to use **ONLY** the absorber LV510 

(and not the LV511) 

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SPIDERLINE II

Additional items

	**LV510**	• Energy **absorber** • Stainless steel and aluminium • Weight: 2,2 kg
	**LV515**	• **Connector** between the cable and the absorber • Stainless steel • Weight: 400 gr
	**LV502**	• Intermediate **bracket** • Stainless steel • Weight: 250 gr
	**LV503**	• **Curve** • 2 pieces • Weight: 500 gr
	**LV531** (200m) **LV532** (1000m)	• Wire **rope** reel • Stainless steel, ∅ 8 mm, 7 x 19 wires • Weight: 250 gr
	**LV500**	• Removable **slider** • Stainless steel • Weight: 275 gr – Size: 9 x 5 x 2 cm

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SPIDERLINE II

The bracket can be fixed on intermediate post or end post

LV502
Intermediate bracket

LV523
Intermediate post

LV520
Conter plate for intermediate post

LV503
Curve

LV506
Starting/Ending anchor point

LV522
End post

LV521
Counter plate for end post

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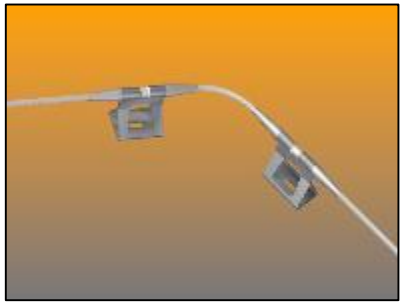
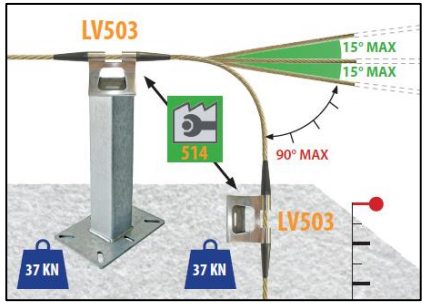
Curve: characteristics



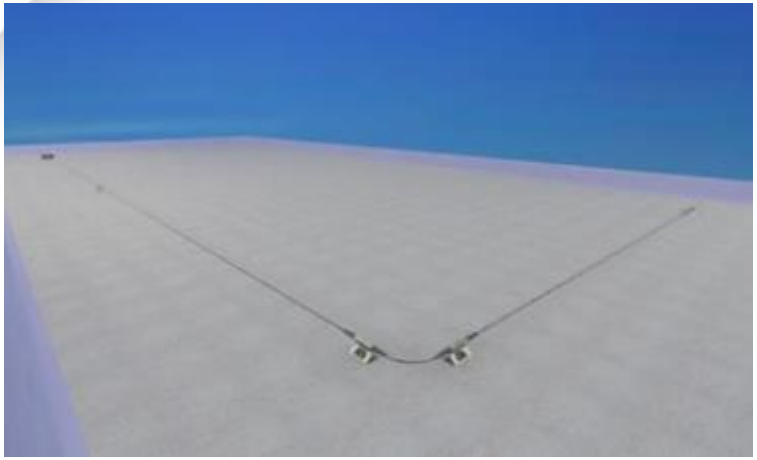


A vertical or horizontal flexion less than 15° is accepted. With a horizontal curve from 16° to 90° you have to use our curve system:

 **LV503**	 **LV517**	 **LV518**
Curve connectors. They can be fixed on 2 end posts (**LV522**)	If necessary a curve rail (not yet included in the catalogue)	If necessary a curve support with a simple fixing point. It is adapted also on a post (**LV522**)

SPIDERLINE II

SPIDERLINE II can be installed:



On the ground

On the wall

Low on the wall

On overhead

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SPIDERLINE II

For the installations

- Low on the wall
- On overhead

all the INTERMEDIATE points and curves need a support

to change direction 90 degrees

 LV519	• Bracket for intermediate head and ceiling adapter • Stainless steel • Weight: 530 gr – Size: 7 x 8 x 10 cm

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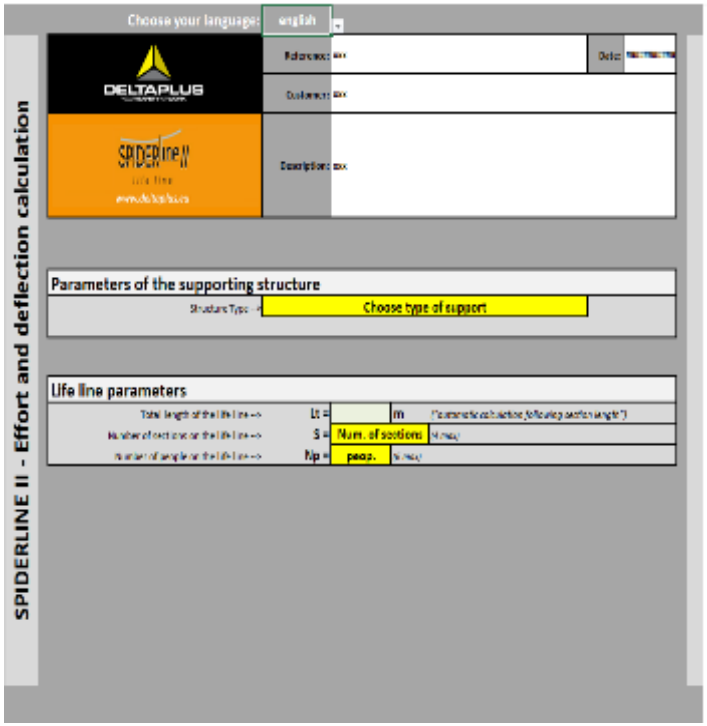
SPIDERLINE II

WARNING !

With a complex lifeline you need a spreadsheet to define the lifeline CLEARANCE and the STRENGTH on the anchorage points.

Only our **EXPERTS INSTALLERS** can calculate the real clearance using our spreadsheet.



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⚠ WARNING !

Depending on:

a) **the distance** of the 3 or more anchorage points (min 2m max 12m)

b) **the resistance** of the support (declared by an engineer)

our **OFFICIAL INSTALLERS**, using our spreadsheet, define:

- **the clearance** due to lifeline
- the maximum number of **admitted workers**, from 1 to 6

To obtain a shorter clearance and/or a largest number of workers, the official installers will suggest a technical drawing with the most appropriate configuration.

⚠ WARNING !

In case of fall of a person attached to a lifeline, it is necessary to consider a DOUBLE clearance:

1. **Clearance of your fall arrest device** (for example using an energy absorber in F0 = 2m

+

2. **Clearance of the lifeline** that is flexible.

   All the data are available using our spreadsheet.

1+2 **Total clearance** is the sum of point 1. and point 2.

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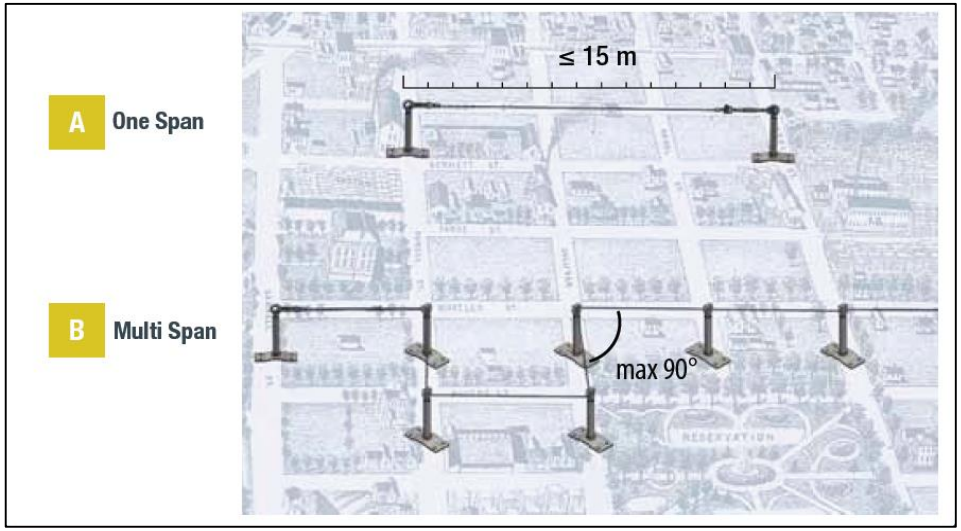
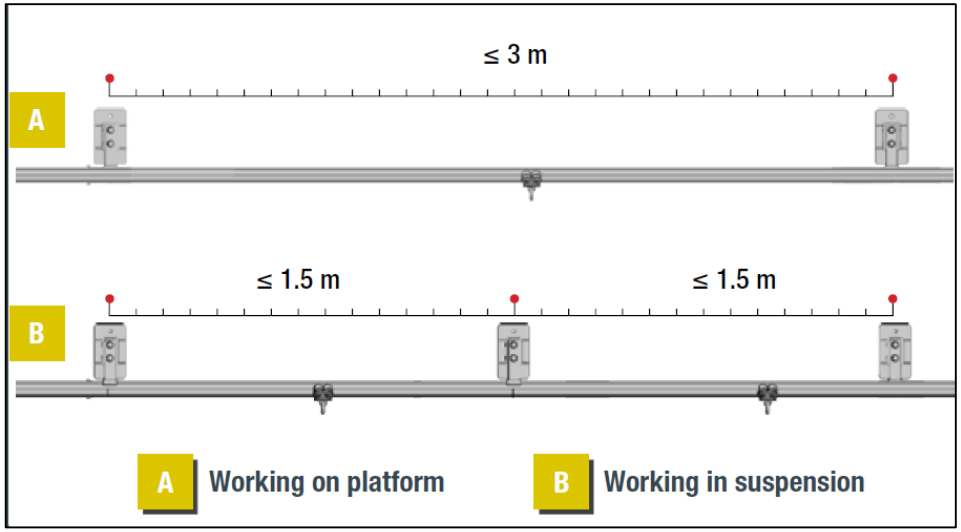
NEW ITEMS

During the first part of 2016 we will introduce the following new items:

GPS line



T-REX line



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THANKS

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