# INSTALLATION INSTRUCTIONS FOR VIA FERRATA

by

ha C

Make Via accessible to all. No possibility of disconnection Guaranteed security from Start to end.

Simple and efficient Via 8. Adapts to any and all Via. The Via 8 system is designed to create or adapt to most via ferrata.

It is intended to be installed by professionals experienced with materials and methods for fastening to rock surfaces.

Some very old Via requires complete installation, weakened, or obsolete fixing points is prohibited. Therefore, the use of our parts on rusted.

The resistance of the fixing points of the pins or closed, or double bars must be superior to the slip-page of our packs.

Our parts are designed to have a slippage before breaking as to not damge the supports (Excluding rockfall and avalanches which can damage the system).

We are not responsible for any damage caused by nature.

The route can be designed to limit the risks associated with landslides, snowcorridors, and slopes exposed to ise accumulation.

An annual check by an independent expert is mandatory as well as an inspection of pack torque values.

We recommend the use of quality wire rope, types which limit the potential for corrosion. 12mm stainless steel or galvanized wire rope.

# Table of maximum forces with wire rope of 12 mm (For american standard wire rope this includes 12,7 mm).

	Slippage	Rupture
Pack New Via 80	25 kN	60 kN
Pack New Via	25 kN	60 kN
I Pack	20 kN	40 kN
Pack 100	30 kN	60 kN
Xquad		80 kN

#### USE.

Using the Via 8 is simple: just slide the OCHO + hook onto the stainless steel plate.

It is preferable, however, to position a briefing area at the start of the Via for use as a ground school.

Pictures of use are available.

The Via 8 systems allos for the progession of people, conventionaly equipped with shock absorbing lanyards. And K-type connectors or with Via 8 PPE.

Both configurations can be easily used with our lifeline systems.

Positioning the X-QUAD (bifurcation cross) allows users to bypass and / or organize in a any number of variations. If on the course, this part must be presented and taught within the ground school briefing.





# **VIA 8**

- We have developed a new PPE system which incorporates the PETZL scorpio lanyard.
- EN 958 standard.
- Via 8 is specially designed for traveling on Via ferrata.
- Superior resistance to a K-type carabiner.
- Replaceable wear parts.

### **NEW VIA 80 PACK**

- Ideal for creating Via.
- High resistance and very easy to install.
- 2 bolts of 12mm or 14mm with chemical sealing.
- Can be used in horizontal or vertical applications with hardware at every 3 meters.

3 mètres max

### HORIZONTAL PROGRESSION

contact block

- Points every 3 meters.
- Cable tensioned with a little slack.

## VERTICAL PROGRESSION

- Points every 3 meters with Mou.
- Leaving a little slack at the exit of a via Pack helps limit direct impacts from connectors and mounting plates.

3 mètres

• Can also be fitted idetically, with wire rope stretched on certain Vias.

If it is not possible to add slack to the wire rope, we recommend the additional installation of a contact block.

Mou

### ADAPTABLE PACKS ON EXISTING POINTS.

• These Packs can be adapted to any anchors present on the Via.

• Installation on pins, bars and pigtails.



### PACK NEW VIA

This part is adaptable on closed pins or wire rope up to 16mm.

Installation is possible on horizontal or vertical closed pins and element wires (bridges, double cable, suspended elements.)

Fastening is done with two stainless steel or galvanized wire rope clips appropriate for the diameter of the spindle.

Depending on the models and the curvature of the spindle, the sole of the strain relief may not be used if it does not match the spindle.

Correspondence should to be considered Depending on the model; Via ferratas are sometimes surprising and certain pieces in may have not been placed in a traditional way.

If you have any doubt it is prefered that you use new VIA 80 packs ith new bindings.



The tightening torque must be adapted to the diameter of the wire rope clamp utilized. See the wire rope clamp manual.

We recommend stainless steel Nylstop type bolts as well as stainless steel washers if the closed spindle has a diameter of 12mm or less.



Whatever the positioning of the closed horizontal or vertical pin, it is possible to create a slack in the wire (loop) at the exit of the new via pack, in order to limit direct shocks in the event of a fall.

The use of a contact block can be used if the equipment in place is a tensioned wire where slack cannot be applied.





DURING ASSEMBLY IT IS ESSENTIAL TO CHECK THAT THE HOOK PASSES FREELY.

#### MOUNTING THE NEW PACK VIA ON HORIZONTAL OR VERTICAL CLOSED SPINDLES



Present the new VIA pack facing the closed pin.

Remove the old cable from the lifeline.



Present the (2) U's for wire ties. Depending on the curvature of the spindle, do not use the cable clamp bracket



Position the bolts and tighten to the correct torque. Fixing of the new stainless

steel plate via the support.



Depending on the configuration of the VIA, create an identical loop (slack)



### **IPACK**

This small format is specially designed to be attached to pigtails or Raumer type anchors.



Ipack 4 is designed to be positioned on Raumer type bars or older and also on open pins.

On open pins, the Ipack 4 is positioned in the wire clamp housing if the model is provided. Several models of Ipack exist depending on the configuration and the model of the anchors encountered.

If some anchors on the Via are too old, it will be preferable to use a New Via 80 Pack to effectively secure the Via Ferrata.

### **MOUNTING OF THE IPACK 4 ON HORIZONTAL OPEN SPINDLES**

Check that the spacing between the pin and the pack is sufficient to allow the hook of the Via 8 PPE to pass freely. Many models exist by Ipack 4 fits most.



Remove the wire tie.



Position Ipack on the anchor in place using stainless steel bolts. Note: the hook must be able to pass freely.



Position the die and tighten the bolts to 50 Nm.

Fastening to the open pins is completed with 10 \* 30 A4 stainless steel Nylstop type nuts at the tightening torque reccomended by the manufacturer. Generally this type of assembly refers to a horizontal path. In this context, leave the wire indentical to its curvature. If the progression is vertical: leave an identical (slack) loop.

### MOUNTING OF THE IPACK 4 ON VERTICAL OR INCLINED OPEN SPINDLE

Fixing with an 4 10 \* 30 stainless steel bolts and Nylstop type stainless steel nuts at the tightening torque reccomended by the manufacturer.

The use of Ipack 4 may not work in this configuration: there would be a problem for the passage of the PPE Via 8 hook on the plate.

This again, will all depend on the open spindle model encountered.

If the hook cannot pass freely, a new Via 80 pack will have to be fitted instead.



### JOINING CABLES

It is possible to join cables if the Via has variants or significant working lengths.

#### SEVERAL METHODS:

- Crimping a lap splice in accordance with wire, sleeve and tool type.
- With cable ties: in accordance with wire, sleeve and tool type.
- With a crimp and maillon rapide.
- With the use of the X-QUAD bifurcation part and crimping.

1 mètre max

# ENTRY POINT / EXIT VIA

- 2 Ipacks or 2 New Via Packs are to be fixed at the start and finish of the Via.
- Maximum space between the two : 1 meter.

## EQUIPMENT BRIDGES OR TYROLIANS

- PACK 100 and PACK 100+ allow the equipment of elements and ziplines to be added into te Via Ferrata.
- We recommend that you always use attachment points with a higher resistance than the packs used.
- 60kN minimum for the pack 100.
- 90kN minimum for the pack 100+.
- Raumer pins for examples, or any other compatible resistance support.

MOUNTING EXAMPLE ON SPINDLE

# CROSS OF BIFURCATION AND ACCESSORIES.

• The Via 8 system allows the installation of continuous lifelines with variants.

Allows for the choice of heading towards an exit, overtaking, and /or taking another route.

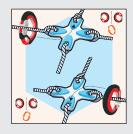
Adaptable parts can act as intermediary and attachment to the system.

A.Fix and A.Polo.

These two pieces are placed on the wall with 12mm or 14mm spits with chemical sealing.



Pictures are available for the correct use of the system.





All our packs are supplied ready to install Plate + Die + hot-dip galvanized bolts. Stainless steel cable ties, Ipacks fixing bolts are not provided because of the many possible solutions depending on the anchors present.

The torque value must be 50 NM between the stainless steel plate and the aluminum matrix of the packs.

The entire range is designed to withstand the harshest conditions.

This system makes it possible for a larger audience to easily access and discover the mountains.



2 rue du Parc National, 64260 Arudy - France vertvoltige@gmail.com Bureau (+33) 5 59 77 96 63 - Commercial (+33) 6 17 65 35 45



