



## Instruction manual

**DE – ACHTUNG:** Die Verwendung des INNOTECH-Produkts ist erst zulässig, nachdem die Gebrauchsanleitung in der jeweiligen Landessprache vollständig gelesen und verstanden wurde.

**EN – ATTENTION:** Use of the INNOTECH product is only permitted after the instruction manual has been read and fully understood in the respective language.

**IT – ATTENZIONE:** L'utilizzo del prodotto INNOTECH è permesso solo previa lettura e comprensione dell'intero manuale di istruzioni nella lingua del relativo paese di utilizzo.

**FR – ATTENTION :** L'utilisation du produit INNOTECH n'est autorisée qu'après avoir entièrement lu et compris la notice d'utilisation dans la langue du pays concerné.

**NL – ATTENTIE:** Dit INNOTECH-product mag pas gebruikt worden nadat u de gebruikershandleiding in de taal van het betreffende land gelezen en begrepen hebt.

**SV – O B S :** Denna INNOTECH-produkt får inte användas förrän bruksanvisningen på respektive lands språk har lästs igenom och förstås.

**DK – GIV AGT:** Du må først bruge et produkt fra Innotech, efter du har læst og forstået brugsvejledningen i fuldt omfang i dit lands sprog.

**ES – ATENCIÓN:** Se autorizará el uso de los productos INNOTECH una vez que se hayan leído y entendido las instrucciones de uso en el idioma del país.

**PT – ATENÇÃO:** O uso do produto INNOTECH apenas é permitido depois de ter lido e compreendido na totalidade as instruções de uso na respetiva língua nacional.

**PL – UWAGA:** Produkty firmy INNOTECH mogą być używane dopiero po dokładnym zapoznaniu się z całą instrukcją obsługi w oficjalnym języku.

**TR – DİKKAT:** INNOTECH ürününün kullanımı ancak ilgili ülkenin dilinde sunulmuş olan kullanım kılavuzunun tamamen okunmasından ve anlaşılmasından sonra izin verilir.

**SL – POZOR:** Uporaba izdelka INNOTECH je dovoljena šele po tem, ko ste navodila prebrali v celoti v ustreznem jeziku svoje države in jih tudi razumeli.

**CZ – POZOR:** Práce s výrobkem INNOTECH je povolena teprve po kompletním přečtení a porozumění návodu k použití v jazyku daného státu.

**SK – POZOR:** Produkt INNOTECH môžete používať až po prečítaní a porozumení celého návodu na použitie pre príslušnú krajinu.

**HU – FIGYELEM:** Az INNOTECH termékek használata csak azt követően engedélyezett, hogy saját nyelvén elolvasta és megértette a teljes használati utasítást.

**ZH – 注意:** 只有在仔细阅读并完全理解了当地语言的使用说明后, 才能使用 INNOTECH 公司的产品。

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**Warning/Danger Notifications**

For an IMMEDIATE potential danger which could lead to serious injury or death.



For a POTENTIALLY dangerous situation which could lead to serious injury or death.



For a POTENTIALLY dangerous situation which could lead to minor injury or property damages



Wear protective gloves!



Wear protective glasses!

**Additional Information/Instructions**

**correct**



**incorrect**



Follow the manufacturer's instructions / appropriate user manuals

**The following safety instructions and the latest technical developments must be taken into account.**

### 3.1 GENERAL

- The safety system may only be assembled by competent, qualified persons who are familiar with the safety system. It may only be assembled in accordance with the latest technical developments.
- The protective equipment may only be used by persons who:
  - have been trained to use "Personal Protective Equipment" (PPE).
  - are physically and psychologically sound. Health restrictions such as cardiovascular problems, medication use, alcohol consumption, etc. decrease user safety.
  - are familiar with the locally applicable safety rules.
- During assembly / use of the safety system, the applicable accident prevention regulations (e.g. for work on roofs) must be observed, as well as the rules and norms for the use of personal protective equipment for fall prevention.
- The possibilities, limits and risks when using the protective equipment must be understood and accepted.
- A plan must be in place that includes lifesaving measures for all possible emergencies (e.g. at least two INNOTECH "VERT-GLEIT-50", ...).
- Before beginning work, measures must be taken to ensure that no objects can fall down from the working area. The area under the working area (sidewalk, etc.) must be kept clear.
- Every safety system is subject to maximal load limits. These are visible on the serial plate of the safety system and must not be exceeded.
- The serial plate of the safety system must be posted in a place which is visible for the user.
- Should any renovation work be done in the immediate vicinity of the safety system after receipt of the system, it must be verified that this work has no impact on the safety provided by the installed system! In case of doubt, a structural engineer or the manufacturer should be consulted.
- After stress on the system from a fall, the entire safety system must be taken out of operation and tested by a qualified professional (component parts, anchors to the substructure, etc.).
- If use of the safety system is to be allowed to external contractors, their understanding of these user instructions is to be confirmed in writing.
- In case of non-natural environmental conditions (e.g. chemical substances) the manufacturer must be consulted.
- The safety system is not to be modified in any way.

- If the equipment is sold to an organization in another country, the user instructions must be made available in the local language.
- The lightning protection regulations of the country must be followed.

## 3.2 FOR INSTALLERS: FOR SAFE INSTALLATION

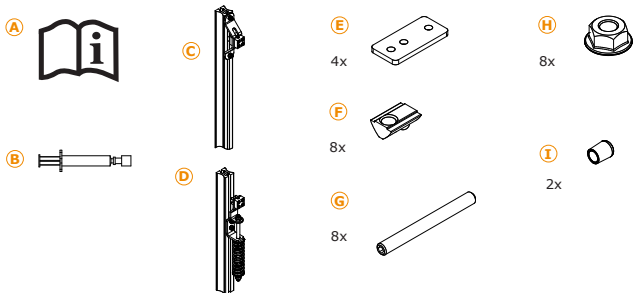
- All stainless steel screws are to be lubricated with appropriate lubricant before installation (included: Weicon AntiSeize ASW 10000 or equivalent).
- Stainless steel may not come into contact with sander dust or steel tools. This leads to corrosion.
- The appropriate attachment of the safety system to the construction must be documented with anchor logs and photos of the circumstances of installation.
- The installers must ensure that the substructure is appropriate for the anchoring of the INNOTECH "VERT-SET-50" safety system. In case of doubt, consult a structural engineer.
- It is also essential that the mounting ladder on which the safety system is installed is sufficiently stable.



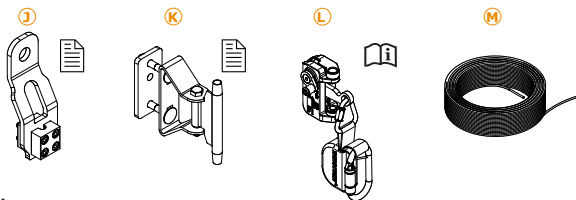
Should anything be unclear during the installation process, it is imperative that the manufacturer be contacted.

## 3.3 FOR USERS: FOR SAFE USE

- To ensure safe entry / mounting of the safety system all necessary work safety regulations are to be observed.
- Because there is a danger of ground contact over the first 2 m, one must be especially cautious when getting on and off of the system.
- The minimum spacing between 2 persons on the safety system is 3 m (measured from the feet of the upper person to the head of the lower person).
- If there is a risk of ice buildup, it is necessary to check for it constant monitoring of the INNOTECH "VERT-GLEIT-50" spring-loaded eccentric lever. The stainless steel cable must also be checked to ensure that it is free of ice.
- The individual elements, including the "Personal Protective Equipment" must be used appropriately, since the protective function of the safety system is otherwise NOT provided.
- In case of unusually strong winds, the safety system must NOT be used.
- Children and pregnant women should NOT use the safety system.



## OPTIONAL:

**A) User Manual****B) Lubricant:** Weicon AntiSeize ASW10000**C) "VERT-SET-50" Top anchor:** Stainless steel AISI 304; Aluminium 6063**D) "VERT-SET-50" Bottom anchor:** Stainless steel AISI 304; Aluminium 6063**E) "VERT-SET-50" Clamp plate:** Stainless steel AISI 304**F) "VERT-SET-50" Slot nut:** Stainless steel AISI 304**G) Set screw M8x80:** Stainless steel AISI 304**H) Hex nut M8:** Stainless steel AISI 304**I) End cap:** PVC

## OPTIONAL:

**J) "VERT-SAFE-50" Backup anchor:** Aluminium 6060, Stainless steel AISI 304*Not included in standard set!***K) "VERT-SZH-50":** Stainless steel AISI 304*Not included in standard set!***L) "VERT-GLEIT-50":** Stainless steel AISI 304/316*Not included in standard set!***M) "AIO-SEIL-30" Stainless steel cable:** Stainless steel AISI 316*Not included in standard set!*

INNOTECH "VERT-SET-50" was developed as a **Climbing protection apparatus** for personal safety for **2 persons** (1 person per slider).

INNOTECH "VERT-SET-50" is intended for use while roping up with personal protective equipment to provide safety while climbing up and down ladders.

The user is connected to the safety system by a body harness in accordance with EN 361, as well as by the INNOTECH "VERT-GLEIT-50" vertical glider. In order to minimise the fall stress for the user, the INNOTECH "VERT-GLEIT-50" is equipped with a shock absorber.

**Maximum total weight allowance:** 50 to 130 kg (incl. clothing + equipment)



**MORTAL DANGER in case of incorrect use.**

- INNOTECH "VERT-SET-50" ONLY to be used in conjunction with personal protective equipment.
- INNOTECH "VERT-SET-50" NOT to be used for workplace positioning.
- NEVER hang loads on the INNOTECH "VERT-SET-50", which are NOT approved of in this user manual.



**Follow the manufacturer's instructions for the personal protective equipment used.**

INNOTECH "VERT-SET-50" has been tested and certified according to **EN 353-1:2014**

Notified bureau for type examination:

TÜV Austria Services GmbH, Deutschstrasse 10, A - 1230 Vienna / Austria

## 6.1 INSPECT BEFORE EACH USE

INNOTECH "VERT-SET-50" is to be checked visually before each use for visible flaws.



**DANGER OF DEATH from damage to INNOTECH "VERT-SET-50".**

- INNOTECH "VERT-SET-50" must be in flawless condition.
- INNOTECH "VERT-SET-50" must be free of dirt and grease.
- INNOTECH "VERT-SET-50" IS NOT to be used if :
  - Visible damage or wear can be seen on the components,
  - other flaws have been identified (loose screw connections, deformation, corrosion, wear, etc),
  - the stress of a fall has been exerted on the construction (exception: first aid administration), (check the spring length before each use!)
  - the product designation is illegible.

The useability of the entire safety system must be confirmed through the acceptance and inspection reports.



**In case of doubt regarding the safe functioning of the safety system, take it out of service and have it tested by a competent professional (with written confirmation).  
Replace the product if needed.**



Follow the user manual of the vertical glider used ("VERT-GLEIT-50").



# 6

## INSPECTION

### 6.2 ANNUAL INSPECTION

Have the INNOTECH "VERT-SET-50" examined at least once annually by an experienced professional who is familiar with the safety system. The safety of the user is dependent upon the effectiveness and durability of the equipment.

Depending upon the intensity of use and the environment, shorter examination intervals can be necessary (e.g. in case of corrosive atmosphere, etc.).

The qualified professional's examination is to be documented in the testing log included in the user manual and kept on record with the user manual.



**Follow the testing intervals found in the inspection log.**

# 7

## GUARANTEE

All components are guaranteed against manufacturing flaws for 2 years from the date of purchase (under normal conditions of use). The period is shortened when components are used in corrosive atmospheres.

In case of a stress on the system (fall, snow load, etc.) the guarantee covering components which were designed to absorb energy or which were deformed is void.



**For system installation and for components which are planned and installed by professional installation firms under their own responsibility; INNOTECH® takes no responsibility and offers no guarantee in case of improper installation.**

A) Name or logo of the manufacturer/seller:

INNOTECH

B) Type designation:

VERT-SET-50

C) Sign that the user instructions must be followed:



D) Maximum number of persons to be fastened:

2 (incl. 1 person for first aid administration)

E) CE-Conformity designation:

CE 0408

F) Year of manufacture and manufacturer's serial number:

JJJJ-...-...

G) Number of the applicable norm:

EN 353-1:2014

H) Minimum distance between users:

3 m

I) Shock absorber:

YES

J) Installation date:

Year of installation: ☒

K) Date of the next annual examination:

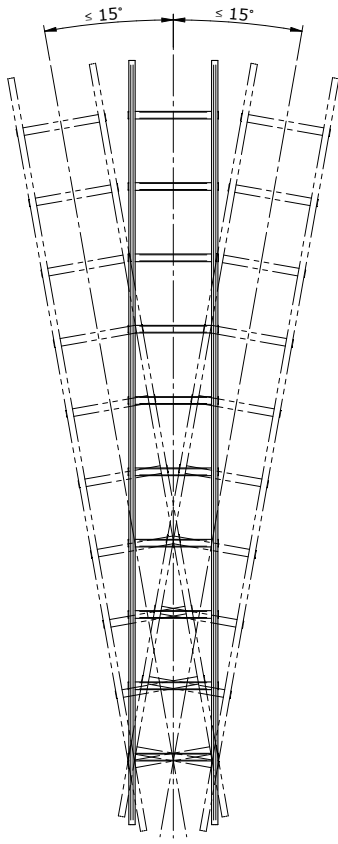
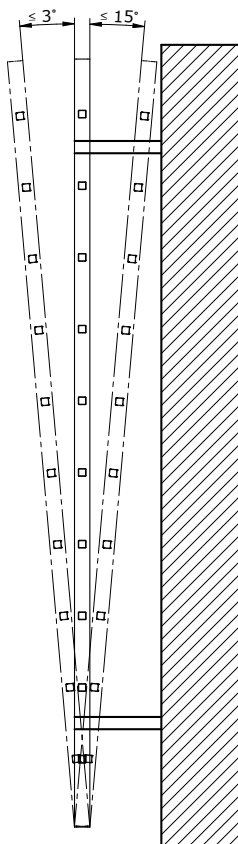
Annual maintenance

L) Name & address of installation company:

Installed by

<b>INNOTECH</b>		<b>E</b>	INSTALLED BY		ANNUAL MAINTENANCE	
<b>VERT-SET-50</b>		<b>G</b>	<b>L</b>		<b>K</b>	
CE 0408						
EN 353-1:2014						
MINIMUM DISTANCE BETWEEN THE USERS	3 m	<b>H</b>				
FALL BREAKER	YES	<b>I</b>				
INSTALLATION DATE	2016 <input type="checkbox"/> 2017 <input type="checkbox"/> 2018 <input type="checkbox"/>	<b>J</b>	JJJJ-...-...		<b>F</b>	
			INNOTECH VERT-GLEIT-50		<b>C</b> <b>D</b> MAX.	
06-06-50-AUFKLEBER-EN-B						

## DIMENSIONS



**Connection to the ladder**

Few ladder rungs can bear the necessary force of 16 kN (as per EN 353-1). The INNOTECH "VERT-SET-50" safety system can therefore be complemented by a backup anchor for additional safety, "VERT-SAFE-50" (*not included in standard set*), which allows for attachment to a static load-bearing construction.

When installed correctly, the INNOTECH "VERT-SET-50" provides force transmission of more than 16 kN.

The stress on the user, e.g. during a fall, is reduced by the shock absorber strap. The actual stress to be expected is approx. 5 kN.

The basic requirement for proper installation of the backup anchor for additional safety on the construction is an appropriate installation substructure (concrete, steel, etc.) and the use of the original connecting methods explained in this user manual.



**MORTAL DANGER when NOT installed properly.**

Fastening options for the backup anchor for additional safety "VERT-SAFE-50" on the construction:

#### CONCRETE SUBSTRUCTURE:

- Threaded rod M12 with FISCHER FIS SB 390 S or Hilti HY 200 stuck into concrete or
- Heavy-duty anchor, Fischer FAZ II 12/30.

#### STEEL SUBSTRUCTURE:

- Threaded bolt M16

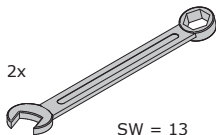
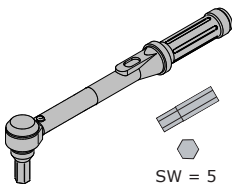
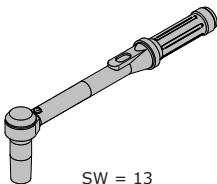


**Use products from other manufacturers only if their technical specifications are equivalent (compare product data sheets).**



The fastening elements mentioned here are *NOT included*.

[mm]



**MORTAL DANGER if NOT assembled correctly.**

- INNOTECH "VERT-SET-50" must be installed correctly according to the user manual.

**EYE INJURY possible from dust/splinters/liquids.**

- Wear eye protection/protective glasses for installation work.

**INJURIES from sharp edges of components.**

- Wear gloves for installation work.



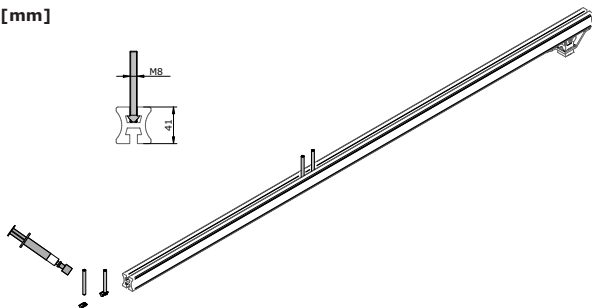
# 14 INSTALLATION

## 14.1 "VERT-SET-50" TOP FIXING & BOTTOM FIXING

1.

Order the anchors, depending upon rung width, as closely together as possible. Attach them at the desired position to the slot.

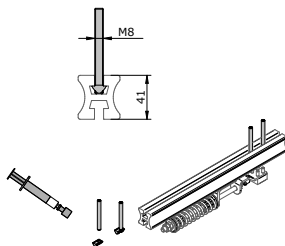
[mm]



2.

Order the anchors, depending upon rung width, as closely together as possible. Attach them at the desired position to the slot.

[mm]





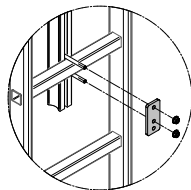
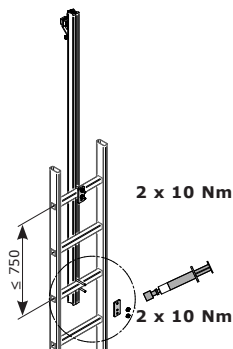
# 14 INSTALLATION

3.



SW = 13

Install the "VERT-SET-50" top anchor at the top end over at least 3 ladder rungs (beginning with the top one) with a maximum spacing of 750 mm.



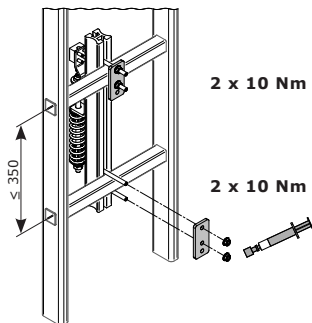
Observe tightening torque.

4.



SW = 13

Install the "VERT-SET-50" bottom anchor over at least 2 ladder rungs (beginning with the lowest) with a maximum spacing of 350 mm.

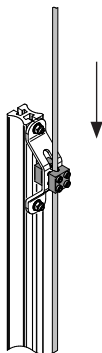


Observe tightening torque.

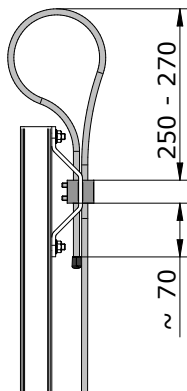
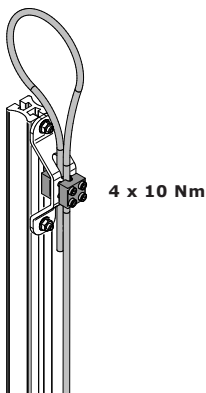
# 14 INSTALLATION

## 14.2 INNOTECH "VERT-SET-50" STAINLESS STEEL CABLE

1.



2.

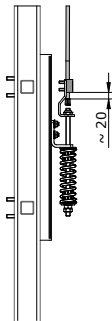
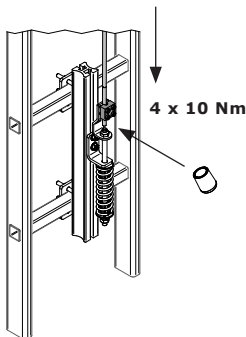


Observe tightening torque.

# 14 INSTALLATION

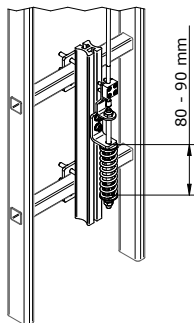
3.

Shorten the bottom end of the stainless steel rope appropriately and screw to tighten. Apply the end cap.



Observe tightening torque.

4.



Spring length  
(after applying tension)  
80 - 90 mm.



By checking the spring length, the possible fall load can be determined before using the INNOTECH "VERT-SET-50" safety system.

**14**

## mz



## 15

Do NOT dispose of the safety system with household waste.  
Collect the used components according to national regulations and recycle them appropriately.

## ACCEPTANCE REPORT

V E R T - S E T - 5 0

CONTRACT NUMBER:

PROJECT:

CUSTOMER:

Employee:



Company Address:

SUPPLIER:

Employee:



Company Address:

INSTALLATION: VERTICAL CABLE SYSTEM as per EN 353-1:2014

DESIGNATION: Cable Installation Nr.: \_\_\_\_\_

Employee:



Company Address:

## PHOTO-DOCUMENTATION (Anchors,...)

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_ PHOTOS (Directory): \_\_\_\_\_

## ATTACHMENT TO LADDER

Tightening torque, rung clamp: \_\_\_\_\_ Nm

Tightening torque, cable clamp: \_\_\_\_\_ Nm

## "VERT-SAFE-50" TO CONSTRUCTION

Installation substructure: \_\_\_\_\_

(z.B.: Massivbeton Betongüte C20/25, Material, Profil, Stahlkonstruktion)

Bolt type (BEF, KLEBER): \_\_\_\_\_

Tightening torque: \_\_\_\_\_ Nm

The signing installation company guarantees the proper completion of the installation (edge spacing, substructure testing, tightening torques, etc.)

The customer accepts the services of the service provider. The user manuals, documentation of connections, photodocumentations and examination sheets have been submitted to the customer (building owner) and are to be made available to the user.

**The installer, a qualified professional familiar with the safety system, guarantees that the installation has been completed properly, according to the latest technical developments and in accordance with the manufacturer's user manual. The installer therefore confirms the reliability of the safety function.**

Delivery of: (e.g.: Cable glider, Personal protective equipment (PPE), storage cabinet)

☐ Pcs. \_\_\_\_\_ ☐ Pcs. \_\_\_\_\_ ☐ Pcs. \_\_\_\_\_ ☐ Pcs. \_\_\_\_\_The installation ☐ has been integrated ☐ is not integrated  
into the existing lightning protection systemName: \_\_\_\_\_  
Customer

Vertical cable system installer

Date, company seal, signature

Date, company seal, signature

**INFORMATION ON THE EXISTING  
SAFETY SYSTEM**

**The building owner is to post this information visibly at the system access point!**

The system must be used in accordance with the latest technical developments and the user manual.

The user manuals, examination reports, etc. can be found at this location:

- Layout plan, with anchor points marked:

**Indicate areas where falling through is possible (e.g. dome lights, light strips)!**

The maximum load values for the anchor points are given in the respective user manuals or the serial plate of the safety system.

In case of stress on the system from a fall or if any doubts arise, the safety system is to be removed from use immediately and sent to the manufacturer or a qualified professional workshop for examination and repair. This also applies if anchor components are damaged.

## INSPECTION REPORT NR. \_\_\_\_\_ (PART 1/2)

V E R T - S E T - 5 0

CONTRACT NUMBER: \_\_\_\_\_

PROJECT: \_\_\_\_\_

ANNUAL SYSTEM INSPECTION CONDUCTED ON: \_\_\_\_\_

CUSTOMER: \_\_\_\_\_ Employee: \_\_\_\_\_



Company address: \_\_\_\_\_

SUPPLIER: \_\_\_\_\_ Employee: \_\_\_\_\_



Company address: \_\_\_\_\_

<b>INSPECTION POINTS:</b> <input checked="" type="checkbox"/> checked and in order	<b>FLAWS OBSERVED:</b> (Flaw description/solutions)
<b>DOCUMENTATION:</b>	
<input type="checkbox"/> User manuals (User copy, glider, etc.)	
<input type="checkbox"/> Acceptance report/photodocumentation	
<b>PPE (Personal Protective Equipment against falls):</b> Inspection according to manufacturer's indications	
<input type="checkbox"/> Date of expiry	
<input type="checkbox"/> periodic annual examinations conducted	
<input type="checkbox"/> not examined (no authorisation)	
<b>STAINLESS STEEL CABLE</b>	
<input type="checkbox"/> optical check	
<input type="checkbox"/> cable threads	
<b>INTERMEDIATE BRACKETS:</b>	
<input type="checkbox"/> clamping	
<input type="checkbox"/> not bent	
<b>BOTTOM ANCHOR:</b>	
<input type="checkbox"/> Cable tension adequate	
<input type="checkbox"/> Anchor plate not warped	

## INSPECTION REPORT NR. \_\_\_\_\_ (PART 2/2)

V E R T - S E T - 5 0

CONTRACT NUMBER: \_\_\_\_\_

PROJECT: \_\_\_\_\_

**INSPECTION POINTS:** ☒ checked and  
in order**FLAWS OBSERVED:**  
(Flaw description/solutions)**TOP ANCHOR:**☐ Anchor plate not warped**CONNECTING CLAMPS ("VERT-SAFE-50") TO THE CONSTRUCTION (2. Safety):**☐ Screw connections☐ Connection to the construction☐ Cable strands**GLIDER: VERT-GLEIT-50:**☐ Ease of mobility in all moving parts☐ Spring pretension on the eccentric lever:  
must exert a counterforce of approx. 0.15 kg.☐ Not soiled☐ Laser engraving☐ Original karabiner (Closure, Corrosion, ....)☐ Activating mechanism:  
Place the INNOTECH "VERT-GLEIT-50" on the cable  
(as described) and attach the original karabiner.  
Move the INNOTECH "VERT-GLEIT-50" (including  
karabiner) upwards and let go.  
The INNOTECH "VERT-GLEIT-50" must lock  
immediately (after approx. 2 cm) !

**Result of acceptance:** The safety equipment corresponds to the manufacturer's user manual and the latest technical developments. Its safety and reliability are hereby confirmed.

Name: \_\_\_\_\_

Customer

Examination: Customer (qualified professional  
familiar with the safety system)

Date, Company seal, Signature

Date, Company seal, Signature



INNOTECH Arbeitsschutz GmbH, Laizing 10, 4656 Kirchham/Austria  
[www.innotech.at](http://www.innotech.at)

