

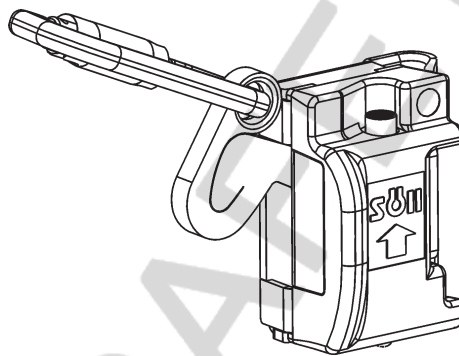
BY ENGINEERING AND LIFTING SAFETY LTD. TEL: +44 (0) 1977 684 600

Operation & Maintenance instructions

for the Söll Vi-Go type safe climbing system

with guided type fall arrester

Söll **Vi-Go** is personal protective equipment against falls from a height:
Guided type fall arrester including a rigid anchor line, that complies
with EN 353 - Part 1:2002



Serial number: _____

Year of manufacture: _____

(The following must be completed by the operator in permanent waterproof ink.)

Date of initial operation: _____

Operator/user: _____

Street: _____

Place: _____

Phone: _____

Fax: _____

Date of Issue: 21.04.2010

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Technical modifications reserved!



Contents

A Safety precautions	3
B Installation	5
C Use	8
D Maintenance	12
E Regular inspections and repairs	16
F Checklist for acceptance	17

Explanation of symbols

	<p>Danger !</p> <p>Improper or careless handling could cause accidents leading to falls or even death.</p>
	<p>Warning !</p> <p>Non-observance could result in serious injury.</p>
	<p>Important !</p> <p>Useful information and user tips are given here.</p>

General information

These installation and usage instructions are applicable for the safety-related components of the product. The delivered product can differ from the version described here due to accessories that may be added to the product.

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Notice!

In this issue the following has been changed: B 5

A Safety precautions

- A 1. Anyone working with or on the SÖLL **Vi-Go** fall protection system must be familiarized with these instructions prior to using the system. Use which is not in accordance with these instructions constitutes a risk to human life. Operatives must be given training covering these instructions and the user information before starting work and at regular intervals thereafter, but at least once a year.
- A 2. The operator of the **Vi-Go** fall protection system as well as the user of the fall arrester must properly ensure that this manual is always stored in a dry place together with the appropriate fall arrester and is available for consultation at all times.
- A 3. The operating company must present this instruction manual at the request of the manufacturer (SPERIAN FALL PROTECTION Deutschland GmbH & Co. KG or one of its authorised dealers).
- A 4. National regulations on accident prevention and use of safety equipment for construction work must be adhered to.
- A 5. The guided type fall arrester that comes with the Söll **Vi-Go** system is an integral part of the safe-climbing system in compliance with EN 353-1 and is designed for use as personal safety equipment. To ensure proper use of the Söll safe climbing system, the operator must ensure that the full body harness and the fall arrester are used according to these instructions. After use, the fall arrester must not be left connected to the safe climbing system. The fall arrester that comes with the **Vi-Go** system must be operated only in original Söll **Vi-Go** safe climbing systems. Use with systems from other manufacturers can interfere with the function of the fall arrester. In such cases, Sperian Fall Protection Deutschland GmbH & Co. KG and its authorised dealers do not assume liability for the product. As a result, the complete liability is transferred to the operator.
- A 6. The safe climbing system must be used only in conjunction with full body harnesses that have been checked and approved in accordance with EN 361 and are equipped with a front attachment point.
- A 7. A maximum of eight users may simultaneously protect themselves against falling from a height using the **Vi-Go** safe climbing system. The distance between the users must not be less than 1.6 m. The actual number of users depends on the load-bearing capacity of the base structure.
- A 8. The guided type fall arrester that comes with the **Vi-Go** system must always be directly attached to the front attachment point of the full body harness.
- A 9. The fall arrester should always be handled in a manner that will protect it from damage or corrosion.
- A 10. The fixation-points for the cable of the **Vi-Go** system must not be used for securing loads.
- A 11. Before and during the use of the installed fall protection system, the system must be visibly inspected to ensure that it is operating properly.
- A 12. The operator of the safe climbing system must ensure that a rescue measures plan is available that takes into account all possible emergencies that may occur when working.

Safety in Action

- A 13. Working temperature -40°C to $+100^{\circ}\text{C}$; here, ensure that the system is free of grease, oil and ice.
- A 14. The operator must be in good health and must not be under the influence of alcohol, drugs or medicines.
- A 15. In case of the use of further personal protective equipment, relevant instructions must be followed.
- A 16. The check list (see Section G) must be fully and correctly compiled by the senior engineer of the installing company using of an indelible pen.
- A 17. With a weight of 100 kg and fall factor 2 situation (worst-case scenario) the height required under the feet of the user is at least 2 m.
- A 18. **Note**
The user may be not be sufficiently protected against hitting the ground or obstacles if at a height of less than 2 m.
- A 19. **Important!**
 Before using the safe-climbing system, ensure that there is the required free space of 2.0 m under the user's feet.
- A 20. The system has been tested and approved by "Stelle 0158: DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809 Bochum.

B Installation

B 1. Important



Before installation, check whether the component on which the Söll Vi-Go system is to be fixed is capable of withstanding loads resulting from a fall (certificate for stability). A qualified engineer must certify this.

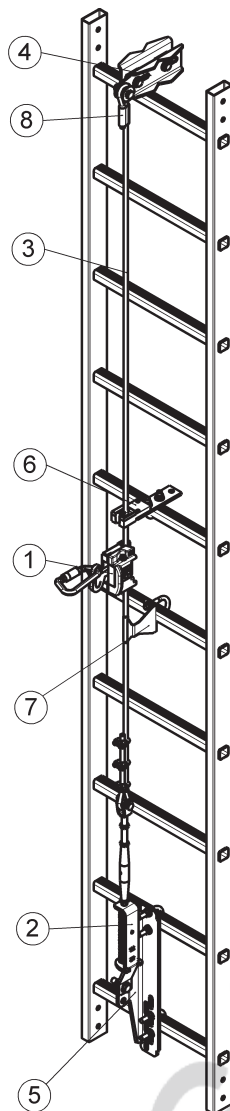
The maximum length of the cable may not exceed 200 m.

The following characteristic loads form the basis of the certificate of stability: loads resulting from dynamic loads due to fall, user loads and the individual weight of the system components.

For fastening the upper end of the cable, acting vertically downward:

number of simultaneous users	Chracteristic vertikal Tyypilliset load Fc1 [kN]
2	9,0
3	10,0
4	11,0
5	12,0
6	13,0
7	14,0
8	15,0

For fastening the intermediate bracket and the lower end of the cable, independent of the number of users, effective in each direction: $F_{c2} = 1.5 \text{ kN}$

Fig. B1

1. **Guided type fall arrester**
(24836 / 1017271)
2. **Cable tensioner**
(24798 / 1017380)
(24799 / 1017381)
3. **Steel cable**
4. **Universal Beam bracket**
(24815 / 1017382)
(24814 / 1017383)
5. **Rung clamp**
(24807 / 1017384)
(24806 / 1017385)
6. **Manual intermediate**
(24838 / 1017370)
(24839 / 1017373)
7. **Automatic bracket**
(24840 / 1017375)
8. **End piece of the cable**

**B 2. Warning!**

The cable end attachments must always be fastened to suitably-sized substructures.

B 3. The upper cable anchor point must always be above the user.

**B 4. Warning!**

The cable must be sufficiently tensioned. The tension reading on the cable tensioner must be between the minimum and the maximum marking.

B 5. The maximum distance between two intermediate brackets is 10 meter.

The intermediate brackets reduce and limit the deflections of the steel cable. The deflection of the system depends on the total length and the wind speed. The intermediates must avoid that the cable is touching the construction and can get damaged.

For longer systems and in regions with high wind speed, we recommend shorter distances between the intermediate brackets.

- Systems length up to 55 m, 4 m between the intermediate brackets.
- Systems length more than 55 m, 3 m between the intermediate brackets.
- If the windspeed wind speed = two separate words are more than 130 km/h, 3 m between the intermediate brackets.

These are recommendations. If it is secured, that the cable will not touch the steel structure, the maximum distance between the intermediates can be used.

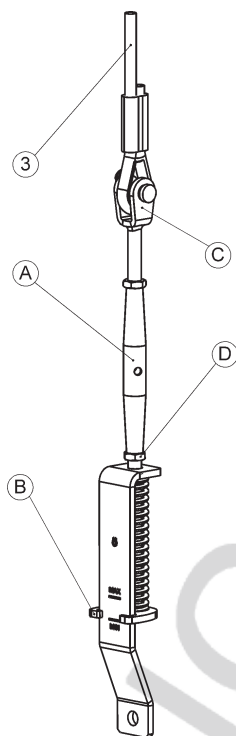
B 6. At least the following components must be used when installing the Vi-Go system:

1. Cable tensioner (2)
2. Cable 7 x 19 (8 mm / 10 mm / 3/8") (3)

B 7. Installing the Vi-Go system:

1. Fasten the steel Cable (3) at the upper attachment point.
2. Install the cable tensioner (2) at the lower attachment point.

Fig. B



- A: Tensioning element
- B: Tension reading
- C: Rope attachment point
- D: Lock nuts

3. Hang the cable (3) at the cable attachment point (C) of the cable tensioner (2).
4. Turn the tensioning element (A) counter clockwise until the tension reading (B) is between the minimum and the maximum marking. At 500 N the cable is sufficiently pre-tensioned.
5. Secure the tensioning element (A) against twisting using the two locking nuts (D).

B 8. Note

The cable of the **Vi-Go** system must be pre-tensioned to ensure the correct functioning of the shuttle. The required pre-tension is 500 N (+/- 100 N).

C Use

C 1. Important! Inspection before climbing:

- Before each use, inspect the cable, the cable tension, the fall arrester, the intermediate fixings and the karabiners for usability.
- The fall arrest system must not be used if defects have been noted or in case of doubts as to its proper function. Before further use an inspection by a competent person is needed or the defective parts have to be replaced.
- Before and during use it should be planned how to effect a rescue safely and effectively.

C 2. Each user must secure themselves to a separate fall arrester.

C 3. The fall arrester, properly used in connection with a full body harness, protects its user during ascent and descent against falls.

C 4. When working in or next to the ascent route and during jobs and actions that are not a part of the usual ascent and descent movements, the climber must additionally secure themselves with a lanyard in accordance with EN 354 or a lanyard for safety harness in accordance with EN 358. (Securing with an anchor device). This is also applicable for idle positions that are intended to be a break on the fall arrest ladder. Only suitable anchor devices must be used for this. In all these situations, the lanyard must be held tight in order to prevent a fall.

C 5. Important! A fall arrester according to EN 353-1 shall be used only by persons who:

- have been trained or are otherwise competent
- are supervised directly by a trained or competent person.

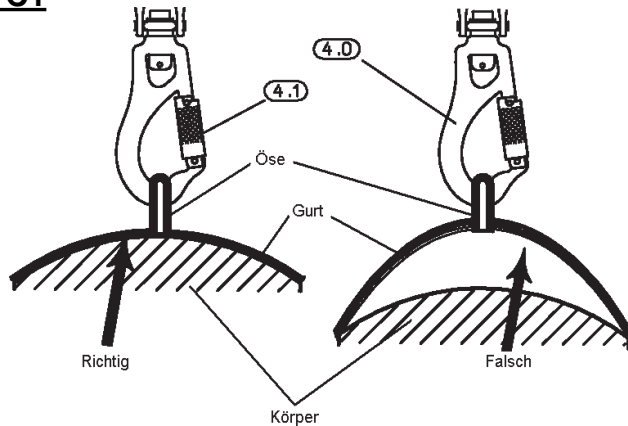
C 6. Connection to the system:

The guided type fall arrester that comes with the Söll **Vi-Go** system is a cable -guided fall arrester with an integrated shock absorber, which permits use without opening the safe climbing system.

The unique design allows one-handed fixing on a 8 mm, 10 mm or 3/8" strong steel cable. The fall arrester has an „anti-inversion“ mechanism, which prevents the fall arrester from being incorrectly attached to the cable.

- C 7. Connecting the Fall arrester to full body harness:
1. Pull-down the knurled bushing (4.1) of the karabiner.
 2. Then turn the knurled bushing and press it inwards.
 3. Attach it directly in the attachment point of the full body harness.
 4. Release the knurled bushing, it locks automatically.

Fig. C1



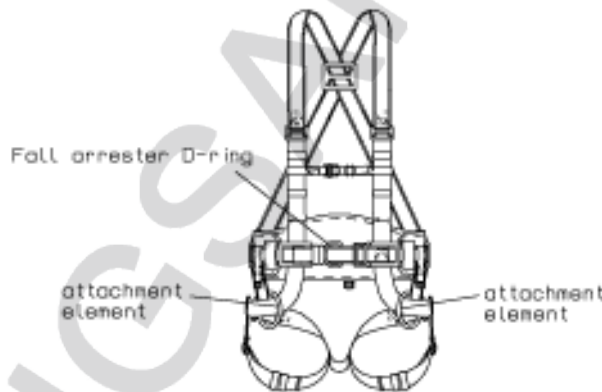
C 8. Danger!



An unsecured karabiner (open knurled bushing) is dangerous to human life.

- C 9. **The abdominal or thoracic strap of the full body harness must fit the body tightly (see fig. C 1).**

Fig. C2



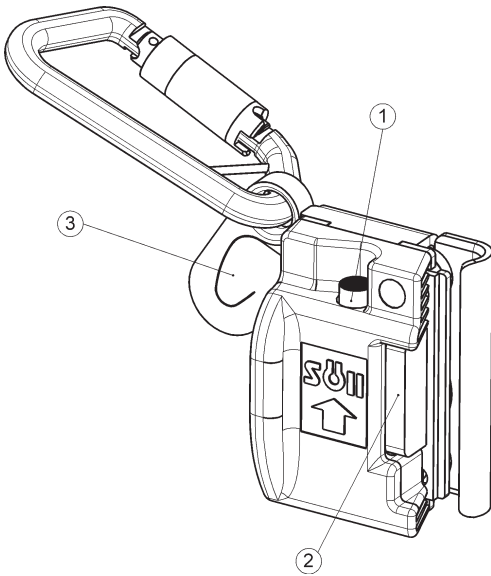
C 10. Danger!



The karabiner of the fall arrester must be directly inserted into the front attachment point of the full body harness. The length of the intermediate joint (length between the cable and the inner curve of the eye on the harness) must not exceed 200 mm.

C 11. Inserting in the cable guide:

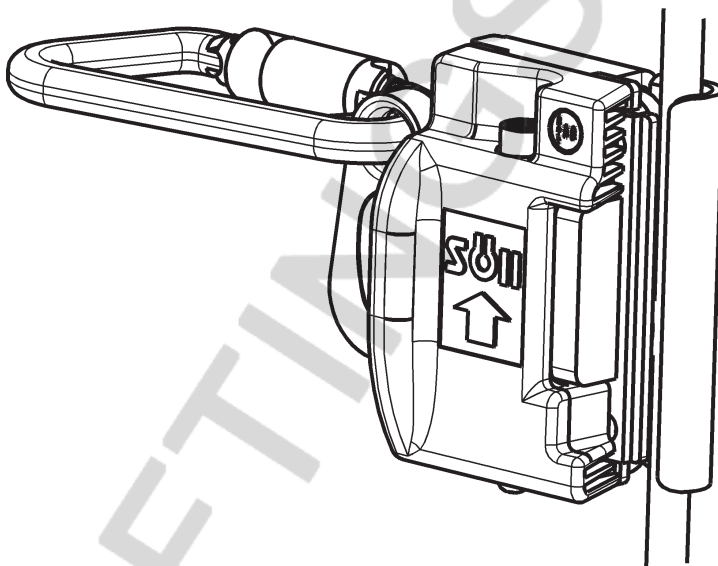
Fig. C3



- 1: Lock knob
- 2: Slider
- 3: Latch

1. Press the lock knob (1).
2. With the lock knob pressed (2) push slider 2 into the casing.
3. Through the now-open gap in the casing of the shuttle, place the shuttle on the cable such that the arrow on the casing points upward.
4. Release the slider (2) and the lock knob (1).
5. The shuttle for the **Vi-Go** system is now connect to the guide cable.
6. Check whether the shuttle can freely slide vertically on the guide cable.
7. Check the functioning of the locking and catch mechanism by moving the latch (3).

Fig. C4



C 12. Danger!



Fall protection must be ensured in another way before removing the fall arrester from the guide cable

Removing from the guide cable:

1. Press the lock knob (1).
2. Press the lock knob (1) and push slider (2) into the casing.
3. Through the now-open gap in the casing of the shuttle, remove the shuttle.
4. Release the slider (2) and the lock knob (1).

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D Maintenance

- D 1. A fall arrester which has arrested a person's fall from a height must not be used again until a competent person has agreed on its further use. If no competent person is available, the fall arrester must be returned to the manufacturer or authorized dealer for inspection **together with these instructions**.
- D 2. Depending on use requirements and operational conditions, the fall arrester must be inspected by a competent person for unimpaired condition to ensure it is in perfect working condition as required, but at least once a year. For reasons of safety the fall arrester may only be repaired by the manufacturer.

Competent person is a:

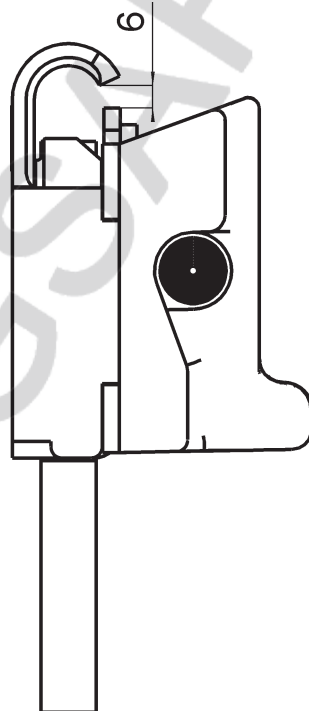
person who due to his training and experience in the field of personal protective equipment against falls from height has sufficient knowledge about applicable state and local safety regulations, applicable standards (e.g. EN-standards) and is thus capable and thus authorized by Söll of judging the correct status and use of systems and products against falls from height.

D 3. **Warning!**



The gap between the slider (2) and the shuttle casing must not be more than 6 mm. If this value is exceeded, the fall arrester must be sent back to the manufacturer for revision.

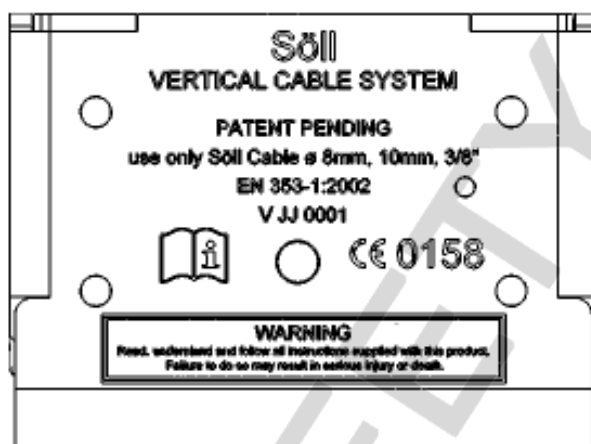
Fig. D1



D 4. The label on the shuttle should contains the following information:

- | | | |
|----------------------------|---|--|
| Söll Vertical Cable System | - | type denomination of the guided type fall arrester |
| EN 353-1 | - | reference to the European standard |
| Use only Söll Cable | - | Information about permitted cables |
| V | - | Product code |
| JJ | - | construction year |
| 0001 | - | serial number |
| CE 0158 | - | monitoring testing institute |
| | - | advice to read the maintenance check list |

Fig. D2



D 5. Name of the system:

- | | | |
|-----------------------------------|---|--|
| Söll Vi-Go | - | type denomination of the guided type fall arrester |
| EN 353-1 | - | reference to the European standard |
| CE 0158 | - | monitoring testing institute |
| | - | advice to read the maintenance check list |
| JJ | - | Designation by Söll |
| To be filled in by the installer: | - | maximum number of users |
| | - | Installation number |

Fig. D3



Safety in Action

- D 6. The guided type fall arrester that comes with the Söll **Vi-Go** system should be washed with water and must be dried using a cloth. Do not wash it with a quick cleaner, thinner or degreaser containing trichloroethane. Do not use grease.
- D 7. The guided type fall arrester that comes with the Söll **Vi-Go** system should be clean and as dry and dust-free as possible, and should be stored in a cool place.

E Regular inspections and repairs

Year of manufacture:		Type designation/ Standard:		
Date of purchase:		Serial number:		
Date when used for the first time:				
Date	Reason for working on the system (*)	Damage determined, repairs carried out and other important details	Name and signature of the expert	Date of the next regular inspection

(*) „Ü“ for regular inspections, „I“ for repair

F Acceptance checklist

Both sides of this check list must be filled in by the site manager of the installation company, using an indelible pen. The installation company site manager is responsible for the accuracy of the statements. If a checkpoint is answered with „no“, the same must be explained in the „Space for comments“ list on page 18.

Control Activity

- The fall arrester has been checked for perfect functioning.
- The gap of the fall arrester is within the permissible range (see Fig. D1)
- The upper cable anchor point is always above the person to be secured.
- All screws on the Vi-Go system have been tightened firmly.
- All screws of the ladder are firm.
- All fasteners on the ladder have been tightened firmly.
- Only anti-corrosive bolt connections have been used.
- The cable is sufficiently pre-tensioned. (see the cable tensioner)
- Identification label in place
- A test run has been carried out.
- These instruction have been handed over to the operator.
- Only SPERIAN FALL PROTECTION Deutschland GmbH & Co. KG fall arrest technology components have been used.

Remarks (please cross)

yes	no
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