

**Assembly, Installation
and Operating Instructions**
for
anchorage device
according to EN 795
„Söll-RAP“
(Removeable Anchorage Point)

Part-No.: RAP-

Serial number: _____

Date of manufacture: _____

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

Date of initial operation: _____

Operator/user: _____

Street: _____

Place: _____

Tel: _____ Fax: _____



Version: 02.08.2006

SE 62




Technical specifications are subject to change without notice.



Contents

A Safety precautions	3
B Assembly/Installation	4
C Application	10
D Care and Maintenance	11
E Check list	13

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>

These instructions are protected by copyright!

They may not be reproduced and distributed in any ways/
 by any means without prior written consent of the author
 according to Articles 16 and 17 of the German Copyright Act.
 Christian Dalloz Holding Deutschland GmbH & Co. KG will
 prosecute any violations against this
 under Article 106 of the German Copyright Act.

Notice!
In this issue the following has been changed: Fig B 5.

A Safety precautions

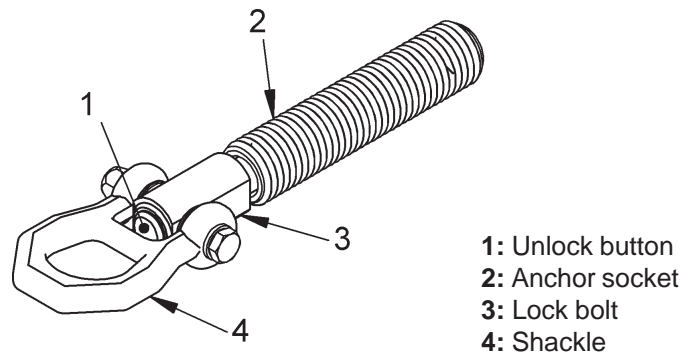
- A 1. These instructions must be brought to the attention of any employee using the „Söll-RAP“ anchorage device for personal protection before he begins to use the device. Action contravening these instructions put people’s lives at risk! Operatives must be given training covering these instructions and the user information before starting work and at regular intervals thereafter, but at least once a year.
- A 2. The owner of the anchorage device must ensure that this instruction
- either is kept easily available and well preserved at place of installation
 - or that the system owner keeps the instructions at a location well known and always easily available to a user of the system.
- A 3. The operator must be able to present these instructions at the request of the manufacturer (Christian Dalloz Holding Deutschland GmbH & Co. KG or one of its authorised dealers).
- A 4. When using further personal protective equipment, the corresponding guidelines must be observed.
- A 5. Precautions for suitable rescue action must be taken before and during operations in areas presenting a risk of falls.
- A 6. The anchorage device „Söll-RAP“ can be used only according to regulations. **It is not permitted** to use the anchorage device as a mean of transportation or to secure loads.
- A 7. The „Söll-RAP“ anchorage device may not be exposed to chemical or other aggressive substances.
- A 8. The site manager of the assembly firm must fill in the checklist (Section E) clearly and correctly using a permanent marker pen.
- A 9. The system has been certified by EXAM BBG Prüf- und Zertifizier GmbH, Dinnendahlstraße 9, 44809 Bochum.

B Assembly/Installation

Fig. B 1

B 1. Definition of terms

Fig. B 1



B 2. Important !



Before installation, you must make sure that the element to which the „Söll RAP“ is secured can withstand the stresses that can occur in the event of a fall (proof of stability). This must be documented in writing by a qualified engineer.

The cross-sections of the components as indicated in the product documentation are minimum values for introduction of the load and are not to be regarded as proof for the above purpose. Otherwise the generally recognised rules of the art apply.

B 3. Installation on concrete

Structure requirements (for anchor sockets M22 and installation accessories M16)

Armored or unarmored normal concrete, usable in the tension zone or in the compression zone.

Minimum concrete quality:	C20/25
Maximum concrete quality:	C50/60
Minimum thickness of the component	$h_{min} = 170 \text{ mm}$
Minimum edge distance	$min_c = 85 \text{ mm}$
Minimum axle distance	$min_s = 85 \text{ mm}$
Effective anchorage depth	$h_{ef} \geq 70 \text{ mm}$

Fig. B 2

B 3.1 Installation on concrete, direct

Fixing accessories required:

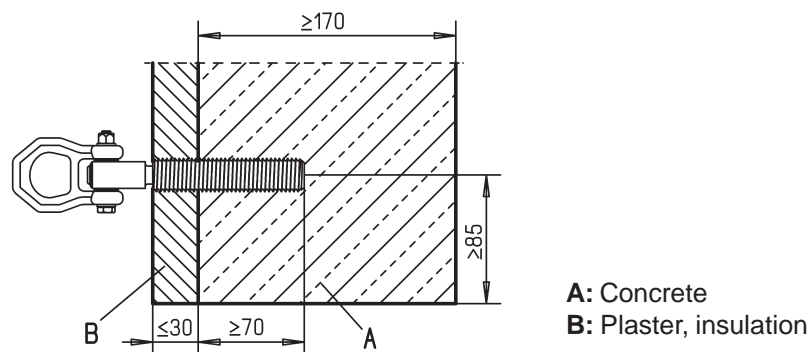
Injection mortar FISCHER FIS. or WÜRTH WIT-C 100 not included in delivery

Installation:

- To cast the anchor socket in the concrete it is mandatory to use the injection mortar FISCHER FIS V or WÜRTH WIT-C 100.
- The assembly instructions given by the company Fischer and Würth must be observed.
- The anchor socket must have an effective anchorage depth of 70mm at a minimum.
- The assembling projection of the anchor socket may not be higher than 30 mm.

Drilling core diameter: $d_0 = 24 \text{ mm}$

Fig. B 2



B 3.2 Installation in suspended ceilingsFixing accessories required:

Pos.5	Installing bar M16 for suspended ceilings including 2 nuts and 2 lock washers	Part-No: 24040, 24041, 24042
Pos.6	Mounting link	Part-No: 23955
Pos.7	Mounting bracket	Part-No: 23954
	Injection mortar FISCHER FIS V or WÜRTH WT-C 100	Not included in delivery
	Dowel for concrete approved by building inspection (for alternative 1)	Not included in delivery
	Screw retention LOCTITE 2701	Not included in delivery

Installation:

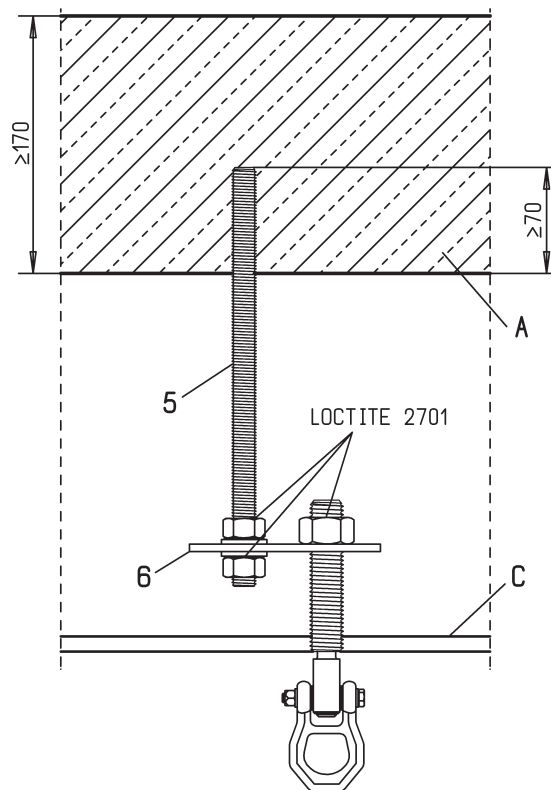
- To cast the anchor socket in the concrete it is mandatory to use the injection mortar FISCHER FIS V or WÜRTH WIT-C 100.
- The assembly instructions given by the company Fischer and Würth must be observed.

Nominal drilling diameter $d_0 = 18 \text{ mm}$

Fig. B 3
Alternative 1

- Before installing the suspended ceiling fix the installing bar in the concrete by means of the injection mortar FISCHER FIS V according to the casting instructions of the company Fischer.
- Adapt the length of the threaded bar M16 to the assembling height of the suspended ceiling.
- Fix and secure the mounting link (Pos. 6) by means of the nut M16. **The screw connection must be secured with LOCTITE 2701.**
- After installation of the suspended ceiling, screw and adjust the anchor socket in the nut M22 of the mounting link. **The screw connection must be secured with LOCTITE 2701.**

Fig. B 3



A: Concrete
C: Suspended Ceiling

Fig. B 4
Alternative 2

- Fix the mounting bracket to the structure by means of a dowel for concrete approved by building.
- After installing the suspended ceiling, screw and adjust the anchor socket in the nut M22 of the mounting link. **The screw connection must be secured with LOCTITE 2701.**

Fig. B 4

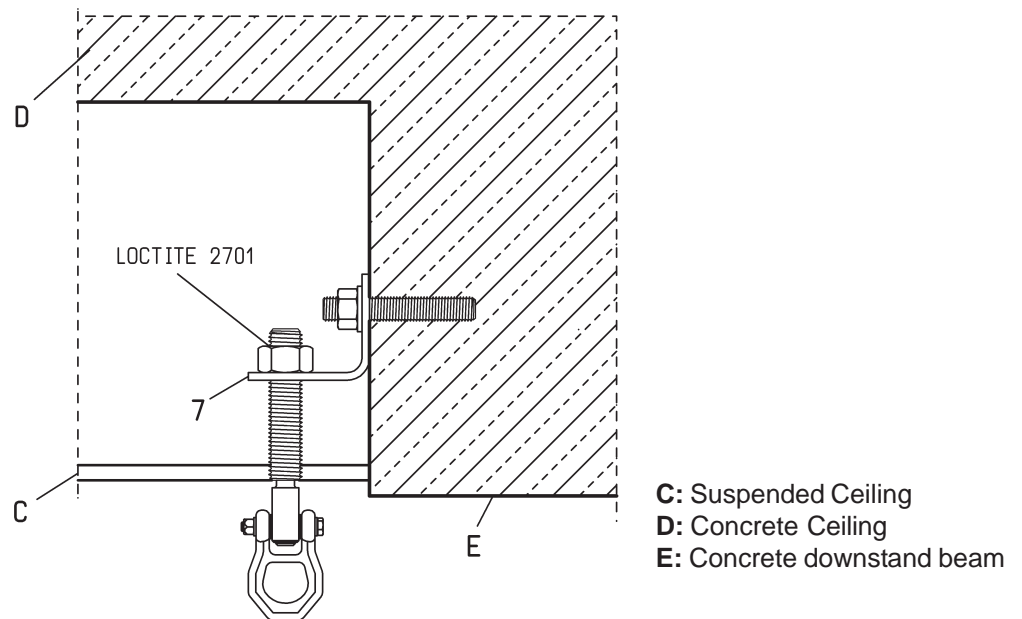


Fig. B 5

B 4. Installation on steel constructions

Structure requirements

Minimum tin thickness: $t = 5 \text{ mm}$
 Minimum edge distance $\text{min}_c = 30 \text{ mm}$

Necessary assembling accessories

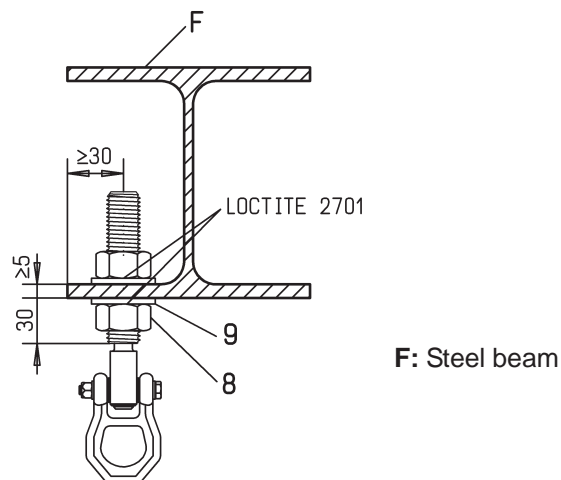
Pos. 8 2 hexagonal nuts DIN 934-M22-A4-70
 (Not included in delivery)
 Pos. 9 2 washers DIN 125-22-A4
 (not included in delivery)

Installation:

- Fix and adjust the anchor socket by means of the hexagonal nuts M22.
The screw connection must be secured with LOCTITE 2701.
- The fixing projection of the anchor socket is = 30 mm.
- It must be made sure that the connection plates of the steel construction are sufficiently solid.

Drilling hole diameter: $d = 23 \text{ mm}$

Fig. B 5



C Application

- C 1. The anchorage point „Söll-RAP“ can be used only by one person at a maximum.
- C 2. If working in areas presenting a risk of falls, make sure that the operative is in a safe and stable position. Avoid anything in the access or working area that might cause stumbling.
- C 3. Before each use it must be checked that the lock bolt locks safely in place. Before each use a visual control to check defects and functionality must be done.

C 4. **Warning!**



The anchorage device cannot be use in case:

- Visible defects refer to a previous fall
- The metal parts are visibly worn our or corroded
- There are cracks on the concrete surface

In those cases, the anchorage point must be checked by an expert and if necessary the parts must be replaced by an authorized installer.

C 5. The „Söll-RAP“ can be used only combined with the following safety accessories:

- Full body harness according to EN 363 and shock absorber according to EN 355
- Guided type fall arrester on flexible anchor line according to DIN 353-2
- Retractable type fall arrester according to EN 360
- Rescue systems according to EN 1496, 1497 and 1498

C 6. **Danger!**



The personal protective equipment against falls from a height (only with shock absorber) or the rescue system has to be chosen so that it prevents the operative to impact against the soil or against other obstacles. The manufacturer's users manual has to be observed.

The operative may never stay above the anchorage point at which he is securing against fall.

C 7. Installation of the lock bolt

- Remove the covering of the anchor socket
- Release the lock bolt pin by swiveling the shackle and pressing the lock-out button.
- Insert the lock bolt in the anchor socket until stop.
- Locking will be effected by releasing the lock-out button and pulling the lock bolt (hearable snapping of the locking).
- When removing the lock bolt, the anchor socket must be re-closed by the covering.

C 8. Attaching of the personal protective equipment

To secure against falls, the carabiner hook of the lanyard must be hooked in the shackle of the lock bolt and secured against accidental releasing.

C 9. **Danger!**



The operative must be otherwise secured against falls before

- The carabiner hook of the lanyard is detached from the anchoring eye of the lock bolt
- The lock bolt is removed from the mounting ferrule.

D Care and Maintenance

- D 1. For safety reasons do never repair components. Damaged components (e.g. after a fall) shall always be replaced.
- D 2. Only original spare parts or spare parts approved by the manufacturer may be used in repairs.
- D 3. The „Söll-RAP“ must be inspected for perfect condition by an expert as required according to the conditions of use and operational situation, but at least **once a year** (pursuant to BGR 198). The functionality of the locking mechanism has to be ensured

D 4. **Warning !**



An anchorage device that is deficient or has been subjected to stress from a fall must not be used any longer. It may only be used again if an expert has approved its further use.

D 5. **Competent person is a:**



person who thanks to his education 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.

E Check list for the inspection of Söll-GlideLoc anchorage device according to EN 795 Söll „SÖLL-RAP“

Bestell-Nr.: RAP-

The check list on pages 13 and 14 must be fully and correctly compiled by the chief engineer of the installing company by means of an indelible pen. He is responsible for the correctness of all the information provided therein. Check points which are characterized by defects or deviate from the description must be described in the list on page 14.

Control Activity

Remarks
(please cross)

	yes	no
• The concrete / the steel construction meets the minimum requirements.	<input type="checkbox"/>	<input type="checkbox"/>
• The injection mortar FISCHER FIS V or WÜRTH WIT-C 100 have been used for the anchorage in the concrete.	<input type="checkbox"/>	<input type="checkbox"/>
• The injection mortar has been used according to the manufacturer's instructions of FISCHER or WÜRTH.	<input type="checkbox"/>	<input type="checkbox"/>
• The screw connections have been secured with LOCTITE according to the instructions of LOCTITE.	<input type="checkbox"/>	<input type="checkbox"/>
• No visible deformation of the anchorage point or of the fixing accessories.	<input type="checkbox"/>	<input type="checkbox"/>
• The functionality of the locking mechanism of the lock bolt has been verified.	<input type="checkbox"/>	<input type="checkbox"/>
• No visible cracks in the concrete surface.	<input type="checkbox"/>	<input type="checkbox"/>
• The lock bolt is labeled.	<input type="checkbox"/>	<input type="checkbox"/>
• Static evidence for the fixing of the anchorage device is available.	<input type="checkbox"/>	<input type="checkbox"/>
• Test climbing has taken place.	<input type="checkbox"/>	<input type="checkbox"/>
• This manual was handed over to the operator.	<input type="checkbox"/>	<input type="checkbox"/>
• Only original components from Christian Dalloz Holding Deutschland GmbH & Co. KG were used.	<input type="checkbox"/>	<input type="checkbox"/>

