



TAS
SCHÄFER

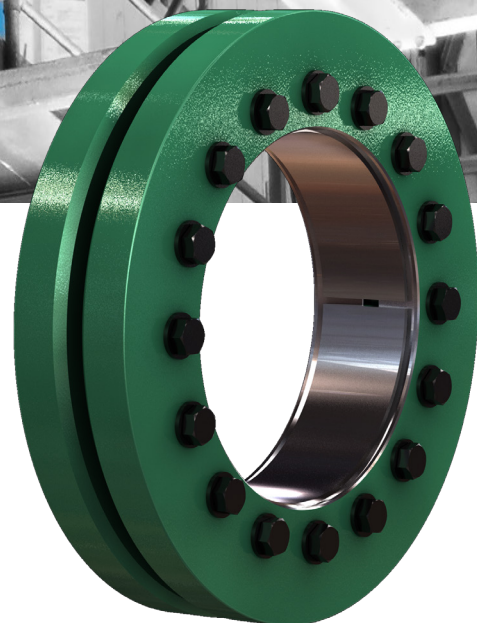
CHAIN & DRIVES®

chainanddrives.com.au
support@chainanddrives.com.au

User Manual

Shrink Disc 3-part

External clamping devices



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[EN] User Manual Shrink Disc 3-part

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1. General Instructions Symbols

[EN]


The installation instructions must be read carefully before installing and commissioning the TAS Schaefer shrink disc type 30xx.

Notes and danger warnings are marked separately and must be observed.


Meaning of the symbols in these installation instructions:

 **DANGER**

Immediate danger with a high level of risk which, if is not avoided, will lead to death or severe injury.

 **ATTENTION**

A danger with a low level of risk which, if it is not avoided, may lead to a minor or slight injury.

 **WARNING**

A possible threat of danger with a medium level of risk which, if it is not avoided, may lead to death or a severe injury.

NOTE

A possibly dangerous situation which may lead to damage to material or the environment.

These Installation instructions apply on condition that the shrink disc is correctly selected for its intended use. The selection and design of the shrink disc are not the subject of these assembly instructions. For an appropriate review of the selection, our engineering department is at your disposal.

These assembly instructions must be kept in a safe place and must be handed over if the shrink disc is passed on, either individually or as part of the machine.

All information and notes in these instructions have been made to the best of our knowledge, taking into account our experience and knowledge to date.

The original version was written in German Language and checked by TAS SCHAEFER. Reproduction is not permitted without the written consent of TAS SCHAEFER.

2. Safety Instructions and Personal Protection Equipment

Safety instructions

[EN]

The TAS Schaefer shrink disc type 30xx may only be mounted or dismantled if:

- the operating instructions have been carefully read and understood in advance,
- this is done with great care by specialists or trained personnel,*
- you are authorized by the company to do so.

*Trained personnel were informed in advance about the required protective equipment and protective measures.

The personnel in charge have been informed about the tasks assigned to them and possible hazards in case of misconduct and have been trained if necessary.

Personnel undergoing training, instruction or general education may only work under the constant supervision of an experienced person.



ATTENTION

Installation and removal may only be carried out when the machine has been brought to a standstill and secured against being switched on again.

NOTE

Dangers occur through moving parts as a result of the combination of the machine and shrink disc. Further measures for the minimizing of risks must be undertaken by the operator.

Repair work may only be carried out by TAS SCHAEFER or after consultation with TAS SCHAEFER.

If a malfunction is suspected, the machine in which the shrink disc is installed must be taken out of operation immediately and TAS SCHAEFER or an authorized TAS SCHAEFER representative informed.

All contact data may be found on our homepage :

www.tas-schaefer.de

or on Phone:

+49 (0) 2335 9781-0

2. Safety Instructions and Personal Protection Equipment

Personal Protection Equipment

[EN]

Use gloves

- Wear chemical-resistant gloves
- Contact with lubricants poses a hazard during assembly and disassembly. Therefore, the substance-related safety data sheets must also be observed. These are available from us on request
- Danger from sharp corners and edges during operation.
- The shrink disk can heat up considerably due to external heat sources. During assembly/disassembly work, surfaces could possibly be hot as a result.



Use eye protection

- Wear full-vision glasses (basket glasses).
- During assembly/disassembly work, there is a risk of contact with lubricants! The substance-related safety data sheets must be observed. These are available from us on request.



Use foot protection

- Suitable foot protection must be worn (safety shoes).
- During assembly/disassembly work, there is a risk of injury due to parts falling and settling.



Use head protection

- During assembly/disassembly work, there is a risk of injury due to lifting and lowering of the parts as well as a risk of impact of the head on protruding machine parts. Suitable head protection must be worn.

3. Intended Use

Intended Use and time limits

[EN]

Intended Use

The force transmission of the shrink disc type 30xx is effected because of a frictional connection of the functional surfaces between shaft and hub (hollow shaft).

- Observe the technical data according to the product catalog or customer drawing.
- The standard products can be used in the range from -30°C to +150°C. For different specifications, please contact us.
- For special products, please refer to the separate specifications.
- Information on yield strengths, tolerances and surface finishes can be found in the catalog.
- Standard products can be used in non-corrosive, liquid or gaseous environments. Please refer to separate or adjusted specifications in case of special and customized products.

Time limits

A time limit for the use of the shrink disc cannot be defined.

The following notes must be observed:

- Relubrication of the contact surfaces is required after a long period of use.
- In case of contamination, the conical surfaces between the outer and inner ring of the shrink disc must be cleaned and re-oiled.
- Before reassembly, the clamping screws must be renewed.

4. Transport

[EN]

The transport activities may only be carried out by trained/instructed persons

Attachment points

To mount the shrink disc on hub, a lifting strap or other suitable lifting gear is recommended.

WARNING

Swinging or falling shrink discs and components. Use or wear appropriate load-carrying equipment, head protection and safety shoes.



ATTENTION

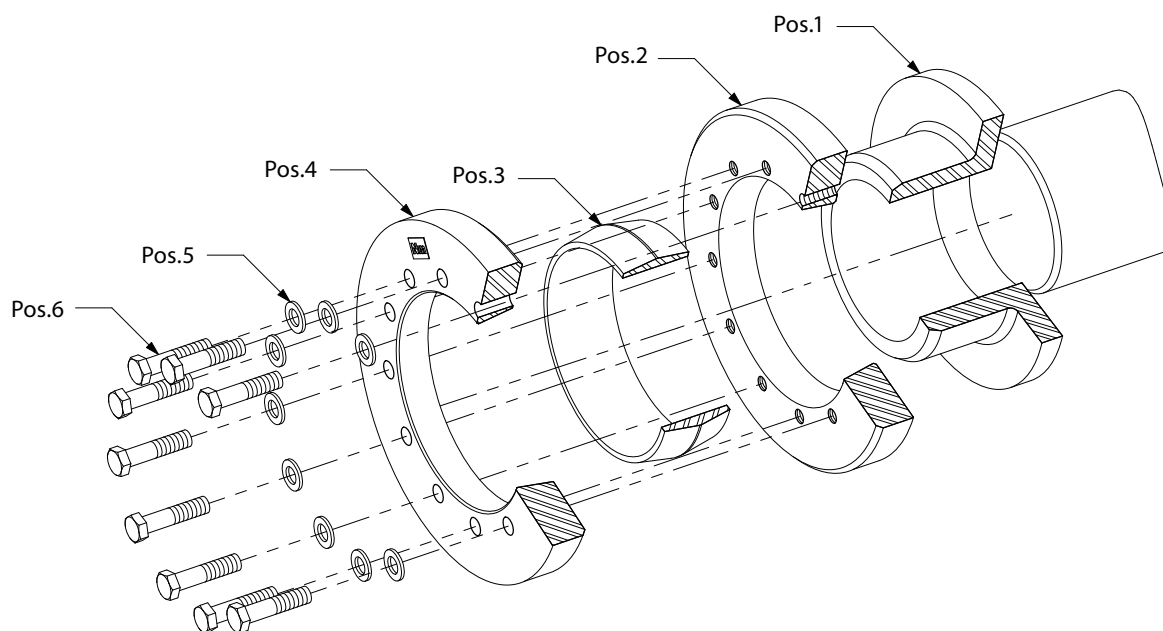
Only engage trained/instructed personnel for the fastening of loads.

Do not remain under swinging loads.

5. Descriptions

[EN]

Exploded view



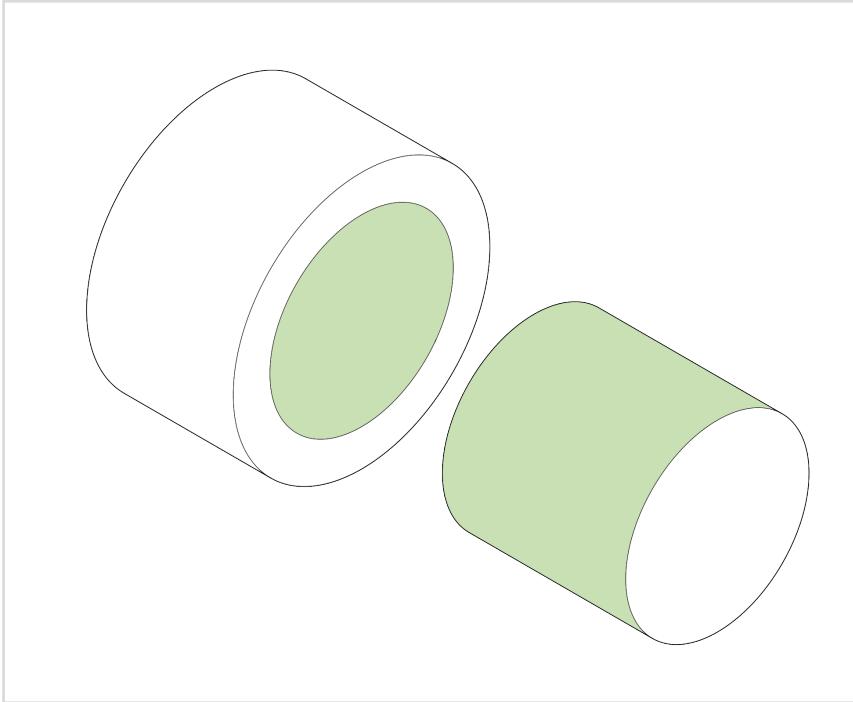
Components overview:

Pos.1	Hub
Pos.2	Disc G (with threaded hole)
Pos.3	Inner ring
Pos.4	Disc D (with through hole)
Pos.5	Washer (only for painted shrink discs)
Pos.6	Screws

6. Preparation

[EN]

The surfaces of the hub bore and machine shaft must be clean, grease-free and dry.



NOTE

The shrink disc is supplied ready for installation.

NOTE

Use clean rags and solvents

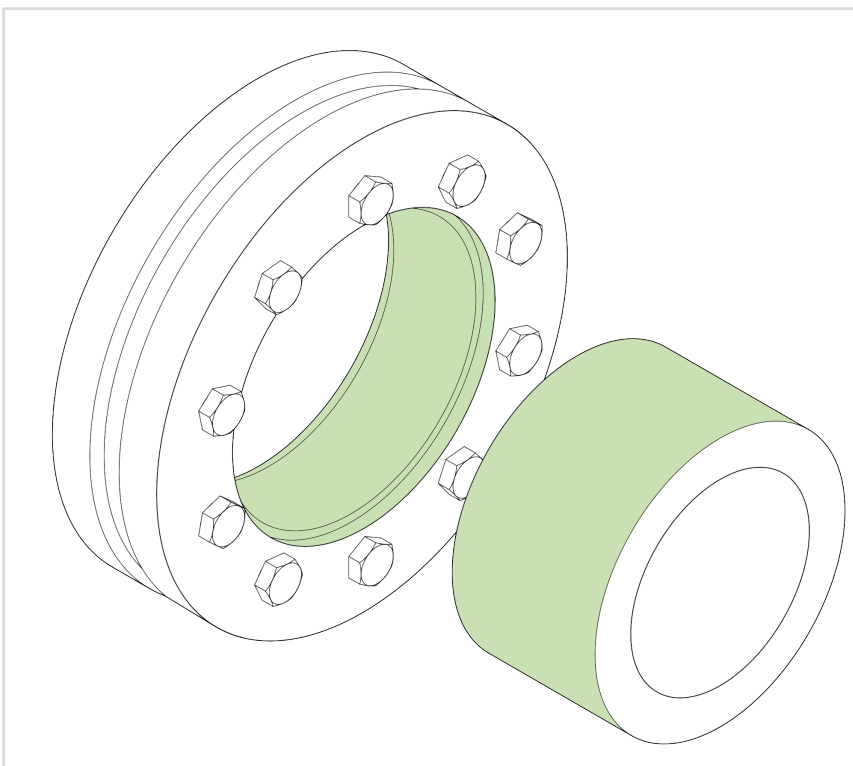


Use eye protection



Use gloves

Grease or oil the contact surfaces between the shrink disc and the hub before assembly.



NOTE

In the case of larger shrink discs, the inner diameter is protected with oiled paper. This must be removed before mounting.

7. Assembling

Assembling 1. to 4.

[EN]

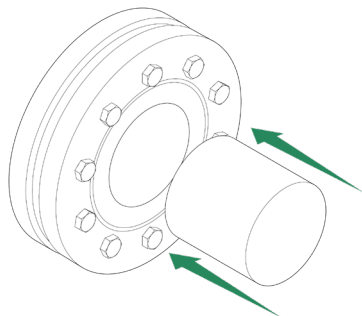
NOTE

Do not disassemble the shrink disc before first use.

NOTE

The clamping screws must not be tightened if the machine shaft is not installed.

1.



Mount the shrink disc on the hub and insert the shaft.

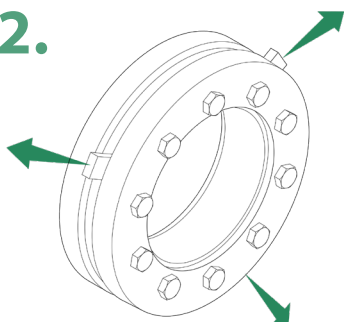


Use foot protection



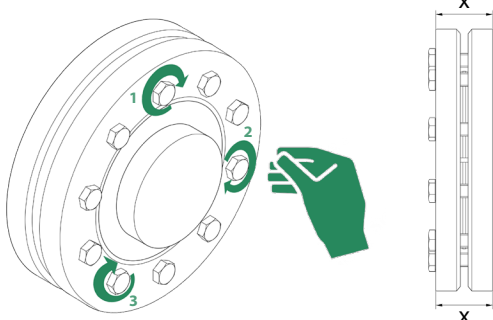
Use head protection

2.



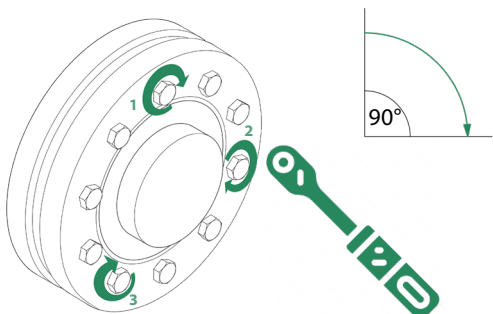
Before first use, remove the transport locks located between the pressure rings.

3.



Hand-tighten 3-4 screws. Make sure that the discs are aligned parallel to each other. (x)

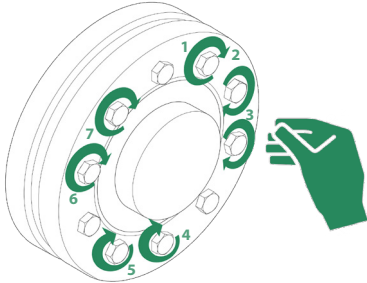
4.



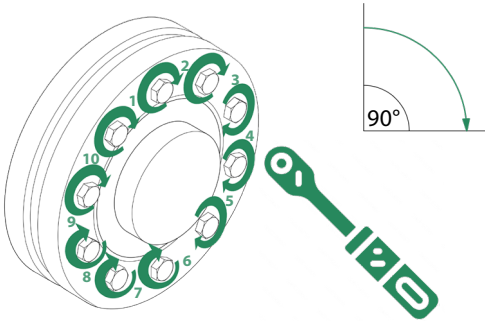
Tighten the 3-4 hand-tightened screws a quarter turn each.

7. Assembling

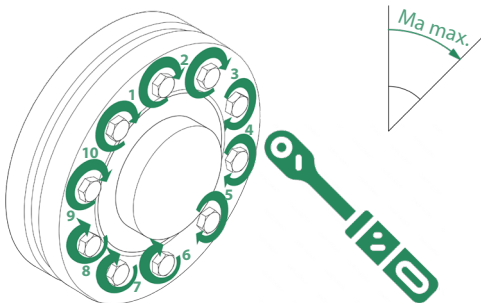
Assembling 5. to 7.

[EN]**5.**

Subsequently apply all other screws to the discs by hand.

6.

Tighten all screws a quarter turn at a time in several cycles until the specified tightening torque is reached.

7.

Then tighten the screws to the specified tightening torque in a further 2-3 cycles.

8. Dismantling

[EN]

1.



Loosen the screws of the shrink disc one after the other in several turns. Use a maximum of a quarter turn.



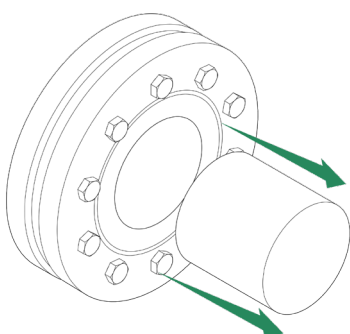
Use eye protection



WARNING

The separate clamping screws must not be completely removed under any circumstances.

2.



After all clamping screws have been completely loosened, the shaft can be removed.

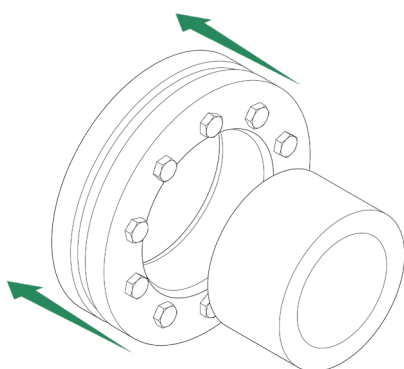


Use foot protection



Use head protection

3.



The shrink disc can then be removed from the hub.



Use foot protection



Use head protection

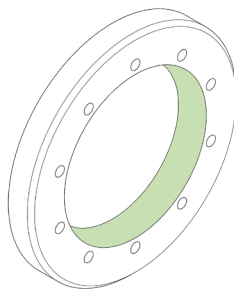
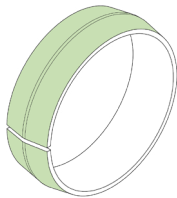
NOTE

Before reassembly, the clamping screws must be replaced.

9. Cleaning and Lubrication

[EN]**1.****Use eye protection**

Before reuse, disassemble the shrink disc, clean it and check the perfect condition of the components.

**Use gloves****Use head protection****Use foot protection****2.**

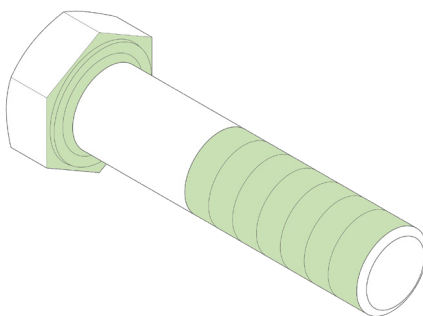
Lubricant with a high MoS₂ content must be applied again to the taper surfaces of the thrust rings and the inner ring.

**Use eye protection****Use gloves**

(We recommend Molykote G-Rapid Plus Paste or comparable).

NOTE

Apply lubricant thinly with a roller.

3.

Lubricate the thread and the surface under the screw head also with lubricant with high MoS₂ content.

**Use eye protection****Use gloves****NOTE**

Use new clamping screws.

4.

After that the shrink disc can be reinserted.