

rigid shaft connection



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# [EN] User Manual shaft coupling W,WLA,WLB

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# 1. General Instructions Symbols

[EN]

The installation instructions must be read carefully before installing and commissioning the TAS Schaefer shaft coupling.

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

### Meaning of the symbols in these installation instructions:



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 shaft coupling is correctly selected for its intended use. The selection and design 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 shaft coupling 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 shaft coupling may only be mounted or dismounted 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 Ishaft coupling. 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 shaft coupling 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 shaft coupling 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 substancerelated safety data sheets must be observed. These are available from us on request.



- 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 shaft coupling is effected because of a frictional connection of the functional surfaces between shaft coupling and shaft, shaft and hub.

- 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 shaft coupling 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, surfaces of the shaft coupling 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 shaft coupling between shaft and hub, a lifting strap or other suitable lifting gear is recommended.

# **MARNING**

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





# **ATTENTION**

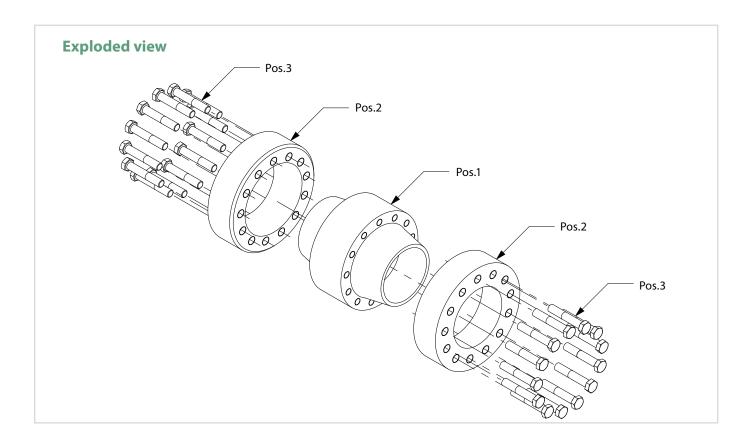
Only engage trained/ instructed personnel for the fastening of loads.

Do not remain under swinging loads.



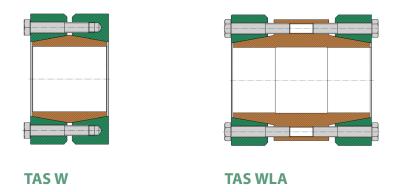
# **5. Descriptions and Sectional view**

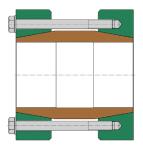
[EN]



# Components overview:

Pos.1	Inner ring / sleeve
Pos.2	Outer ring
Pos.3	Screws





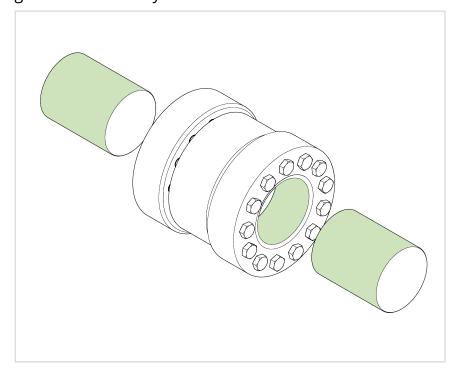
**TAS WLB** 



# 6. Preparation

[EN]

The surfaces of the shafts and the sleeve must be clean, grease-free and dry.



### **NOTE**

The shaft coupling is supplied ready for installation.

### **NOTE**

Use clean rags and solvents

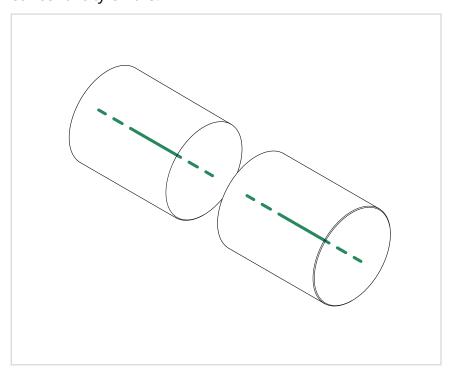


Use eye protection



Use gloves

Make sure that the shaft ends are exactly aligned with each other. A later angular misalignment can lead to concentricity errors.





# 7. Assembling

### Assembly 1. to 4.

[EN]



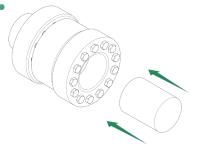


Push the shaft coupling onto the first shaft end.

# NOTE

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

2.



Connect the second shaft end to the shaft coupling.

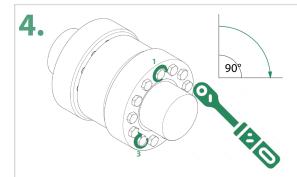
3.



Hand-tighten 3-4 screws. Make sure that the thrust rings are aligned parallel to each other.

### NOTE

Perform this step on both sides.



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

### NOTE

Perform this step on both sides.



# 7. Assembling

### Assembly 5. to 7.

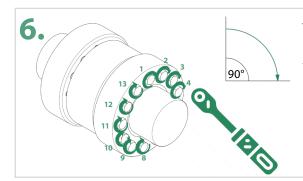
[EN]



Subsequently, apply all other screws to the washer by hand.

### NOTE

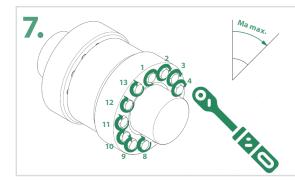
Perform this step on both sides.



Tighten all screws crosswise by a quarter of a turn each in several turns until the specified tightening torque is reached.

### **NOTE**

Perform this step on both sides.



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

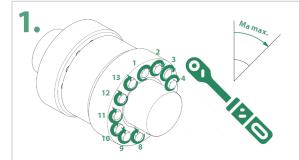
### **NOTE**

Perform this step on both sides.



# 8. Dismantling

[EN]



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



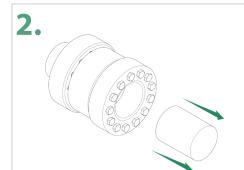
Use eye protection

### **WARNING**

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

#### NOTE

Perform this step on both sides.



After all clamping screws have been completely loosened, the first shaft end can be disassembled.



Use foot protection



Use head protection



Pulling off the shaft coupling from the shaft end.



Use foot protection



Use head protection

### **NOTE**

Before reassembly, the clamping screws must be replaced.



# 9. Cleaning and Lubrication

[EN]



Before reuse, disassemble the shaft coupling, clean it and check that the components are in perfect condition.



Use gloves



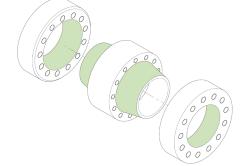
Use head protection



Use foot protection

2.

Relubricate the taper surfaces of the thrust rings and the inner ring with MoS<sub>2</sub> containing lubricant.





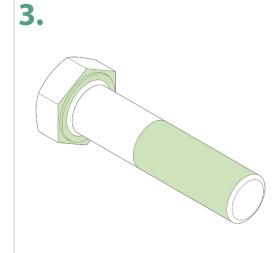


Use gloves

(We recommend Molykote G-Rapid Paste or equivalent.)

### NOTE

Apply lubricant thinly with a roller.



Lubricate the thread and the surfaces under the screw heads also with lubricant with high MoS<sub>2</sub> content.



Use eye protection



**Use gloves** 

#### NOTE

Use new screws.

4.

After that the shaft coupling can be reinserted.