

**TRANSLATION OF THE  
ORIGINAL OPERATING INSTRUCTIONS**

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**Positioning clamping pin**



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# 1 Introduction

These Original operating instructions provide you with all the information you need for the smooth operation of the Positioning clamping pin (hereinafter also referred to as Lifting accessory).

The Original operating instructions must be read, understood and applied by all persons assigned to the operation, maintenance, cleaning and troubleshooting of the Lifting accessory. This applies in particular to the listed safety instructions.

After studying the Original operating instructions you can

- operate the Positioning clamping pin in accordance with safety regulations,
- maintain the Positioning clamping pin according to regulations,
- clean the Positioning clamping pin according to regulations,
- and take the appropriate action when a malfunction occurs.

In addition to the Original operating instructions, general, statutory and other binding regulations on accident prevention and environmental protection of the country of use must be observed.

The Original operating instructions must always be kept at the place of use of the Positioning clamping pin.

## 1.1 Method of presentation

Texts in these Original operating instructions that require special attention are marked as follows as a notice and as a direct warning of dangers:

### 1.1.1 Warnings pertaining to sections

Warnings pertaining to sections apply not only to a specific action, but to all actions within a section.

#### Structure

#### SIGNAL WORD



Symbol for more detailed explanation of the danger

#### Nature and source of the danger!

Possible consequence(s) in case of non-compliance!

- Measure(s) to avoid the danger.

### Danger levels

#### **DANGER**

Hazard with a high degree of risk which, if not avoided, will result in death or serious injury.

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#### **WARNING**

Hazard with a medium degree of risk which, if not avoided, can result in death or serious injury.

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#### **CAUTION**

Low-risk hazard which, if not avoided, may result in minor or moderate injury.

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#### **NOTICE**

Hazard with a low degree of risk which, if not avoided, may result in damage to property.

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### 1.1.2 Embedded warnings

Embedded warnings apply to specific actions and are directly integrated into the action.

#### Structure

 **SIGNAL WORD** Type and source of danger

Possible consequences in case of non-compliance

- Measures to avoid the danger

#### Danger levels

-  **DANGER** / **WARNING** / **CAUTION** (see 1.1.1 Warnings pertaining to sections)
- **NOTICE** (without warning triangle, see 1.1.1 Warnings pertaining to sections)

### 1.1.3 Other methods of presentation

 The info symbol provides useful information.

- Texts that follow this mark are lists.
- Texts that follow this mark describe activities that are to be carried out in the specified order.
- “” Texts in quotation marks are references to other chapters or sections.

### 1.1.4 Symbols used in the Original operating instructions

In warning notices, special dangers are additionally marked as follows:



**Warning against hand injuries**

This symbol warns of hand injuries.



**Warning against danger of cutting**

This symbol warns of cutting dangers.



**Hot surface warning**

This symbol warns of the danger of burns from hot surfaces.



**Warning against suspended load**

This symbol warns of dangers when standing under suspended loads.



**No trespassing by unauthorised persons**

This symbol prohibits unauthorised persons from entering the danger zone. Dangers cannot be identified by unauthorised persons.



**Observe Original operating instructions**

This symbol indicates that the Original operating instructions must be observed.



**Warning against environmentally hazardous substances**

This symbol warns of environmentally hazardous substances.



**Danger - warning against flammable substances**

This symbol warns of flammable substances.



**Danger - warning against toxic (harmful to health) / corrosive or irritant effect / low systemic health hazard**

This symbol warns of substances that are harmful to health.



**Danger - attention / systemic health hazard**

This symbol warns of systemic health hazards if inhaled or swallowed.



**Recycling**

This symbol stands for the return of various materials into recycling.



### CE marking

The CE marking on the product is the manufacturer's declaration that the product satisfies the essential requirements of the relevant European health, safety and environmental protection legislation.

## 1.2 Warranty and liability

The obligations agreed in the supply contract, the general terms and conditions as well as the terms of delivery of the Positioning clamping pin and the legal regulations valid at the time of the conclusion of the contract apply.

All information and notices in these Original operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

These Original operating instructions are not intended to be, and should not be used as a substitute means of determining the suitability or reliability of the Positioning clamping pin for any particular user application. It is the duty of the manufacturer or distributor to carry out an adequate and complete risk assessment, and evaluation and testing of the Positioning clamping pin with regard to the respective specific application or use in question.

Warranty and liability claims for personal injury and damage to property are excluded if they are attributable to one or more of the following causes:

- improper or inappropriate use of the Positioning clamping pin,
- improper assembly, commissioning, operation, servicing and cleaning of the Positioning clamping pin,
- operation of the Positioning clamping pin with defective components or improperly installed or non-functional components,
- a failure to observe the Original operating instructions and the notices in the Original operating instructions regarding assembly, commissioning, operation, servicing and cleaning of the Positioning clamping pin,
- use of unqualified or untrained personnel,
- structural changes to the Positioning clamping pin (Conversions or other changes to the Lifting accessory may not be made without the prior written consent of Erwin Halder KG. In case of infringement, the Positioning clamping pin lose their EC conformity),
- improperly performed repairs,
- use of non-approved spare parts or use of spare parts that do not meet the technically specified requirements,
- disasters, effects of foreign bodies, and force majeure.

Furthermore, Erwin Halder KG reserves the right to revise this publication at any time if technical changes are made in the course of improvements to usage properties and further development, without obligation to notify any person of the revisions.

## 1.3 Copyright

These Original operating instructions are protected by copyright and intended for internal use only.

Transfer of the Original operating instructions to third parties, reproduction in any form and in any manner – even in extracts – as well as exploitation and/or communication of the contents are not permitted without the written consent of Erwin Halder KG, except for internal purposes.

Contraventions obligate to compensation for damages. We reserve the right to make further claims.

## 1.4 Warranty conditions

The warranty conditions are contained in the general terms and conditions of Erwin Halder KG.

## 1.5 Service / Customer service



For technical information, our customer service is at your disposal:

**Phone: +49 7392 7009-0**

In addition, our employees are always interested in new information and experience which is derived from use and can be valuable for the improvement of our products.

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## 2 Safety

### WARNING



**A failure to observe the following safety instructions can have serious consequences:**

Danger to persons due to mechanical or chemical influences or failure of important Lifting accessory functions!

- Please read the safety and danger information in this section thoroughly before putting the Positioning clamping pin into operation.
- In addition to the instructions in these Original operating instructions, observe the generally applicable safety and accident prevention regulations.
- In addition to the instructions in these Original operating instructions, observe the existing national occupational, operating and safety regulations. Also comply with existing internal factory regulations.

### 2.1 Intended use

The operational safety of the Positioning clamping pin is only guaranteed if they are used for their intended purpose.

The positioning clamping pins are exclusively intended for quick clamping, fixing, adjusting, replacing, securing and high-precision positioning of two components or fixtures.

Locking is done by screwing in a bolt so that it can perform its holding function. The Positioning clamping pin become a lifting accessory in certain installation positions.

The standard method of use of Positioning clamping pin is operation by one person and they may only be operated by instructed specialist personnel. The Positioning clamping pin may only be used within the scope of their technical data. The specified maximum technological data must not be exceeded.

The field of application of the Positioning clamping pin is the area of industry, inside buildings. The Positioning clamping pin are not intended for different operating modes, as this is a manual tool.

The Positioning clamping pin are not intended for any other use than the use listed here; other use is considered as improper use. In particular, it is prohibited

- to exceed the maximum load of the Positioning clamping pin (see "3.3 Technical data"),
- to operate the Positioning clamping pin after exceeding the maximum permissible load cycles (see "3.3 Technical data"). After exceeding the maximum permissible load cycles (see "3.3 Technical data"), the Positioning clamping pin must be permanently taken out of operation,

## 2 Safety

### 2.1 Intended use

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- to use the Positioning clamping pin as a protective device or safety function,
- to use the Positioning clamping pin as a traction element,
- not to produce the installation sketch according to the specifications of the company Erwin Halder KG,
- to forget or squeeze in the sealing ring of the Positioning clamping pin,
- to use defective or unsuitable accessories,
- to operate the Positioning clamping pin if the functional components are deactivated, manipulated or defective,
- to operate the Positioning clamping pin while untrained persons are in the danger zone,
- to operate the Positioning clamping pin if they are not ready for operation or have been modified,
- to operate the Positioning clamping pin without instruction.
- to use the Positioning clamping pin only inserted, without using locking via hexagon socket,
- to use the Positioning clamping pin for constantly rotating loads,
- to use the Positioning clamping pin for lifting, holding or carrying persons,
- to place objects on the Positioning clamping pin. Remove all objects that are on the Positioning clamping pin.

Proper use also includes

- the observance of all notices in the original operating instructions and the third-party documentation,
- noting that in case of an overhead or horizontal use, the fixture or the workpiece must be secured against falling down before opening the Positioning clamping pin,
- compliance with the inspection and servicing intervals,
- the use of operating and auxiliary materials in accordance with applicable safety regulations,
- compliance with the operating conditions,
- inspecting the Positioning clamping pin for visible defects or damage before each use.

The technical specifications given in the technical data must be observed without exception.



Only use the Positioning clamping pin for their intended purpose, otherwise safe operation is not guaranteed.

For all personal injury and damage to property resulting from improper use, the operator of the Positioning clamping pin and not the manufacturer is responsible!

#### 2.1.1 Structural changes to the Positioning clamping pin

Design and manufacturer's acceptance are based on the Product Safety Act (ProdSG). No changes, additions or conversions may be made to the Positioning clamping pin without the prior written consent of Erwin Halder KG.

In case of non-compliance, the Positioning clamping pin lose their EC conformity. With this, the manufacturer of the Positioning clamping pin is outside of the warranty.

Immediately replace components that are not in problem-free condition.

Only use original spare parts / wear parts / accessories. These parts are specially designed for the Positioning clamping pin. For parts purchased from third parties it cannot be guaranteed that they have been designed and manufactured to meet the requirements on stress and safety.

Parts and optional equipment not supplied by Erwin Halder KG are not approved for use on the Positioning clamping pin.

#### 2.1.2 Foreseeable misuse

Any use of the Positioning clamping pin beyond the intended use, and/or other use, can lead to serious injuries.

- Use the Positioning clamping pin only as intended.
- Do not use the Positioning clamping pin if maintenance or inspection are lacking.
- Never use the Positioning clamping pin without the locking via hexagon socket.
- Do not use the Positioning clamping pin with constantly rotating loads.
- Do not use the Positioning clamping pin to lift, hold or carry people.

## 2.2 Staff requirements

The Positioning clamping pin may only be transported, installed, operated, maintained, repaired, commissioned and decommissioned, inspected or disposed of by persons who are qualified and / or instructed to do so. These persons must know the Original operating instructions and act accordingly. The respective powers of the staff should be clearly defined.

The following qualifications for various fields of activity are specified in the Original operating instructions:

### **Personnel to be trained**

Personnel to be trained, such as an apprentice or a temporary worker, are not aware of all the dangers that can occur when operating the Positioning clamping pin. They may only perform work on the Positioning clamping pin under the supervision of qualified or instructed personnel.

### **Instructed personnel**

Instructed personnel have been instructed by the operator or by qualified personnel about the tasks assigned to them and possible dangers in case of improper behaviour.

### **Qualified personnel**

Due to their technical training, knowledge and experience as well as knowledge of the relevant regulations, qualified personnel are able to carry out the work assigned to them and to independently recognise and avoid possible dangers.

### 2.2.1 Responsibilities

Improper handling can lead to considerable personal injury and damage to property. Therefore, have all activities carried out only by personnel qualified for them.

- Only persons who can be expected to carry out their work reliably are permitted as personnel. No persons may work on the Positioning clamping pin if their ability to react is impaired by drugs, alcohol, medication or similar.
- All persons working on the Positioning clamping pin must read the Original operating instructions and confirm that they have understood them by signing them.
- Personnel to be trained may initially only work on the Positioning clamping pin under the supervision of qualified personnel. The completed and successful instruction must be confirmed in writing.

The operator is responsible for instructing the personnel.

### 2.2.2 Obligation of the staff

Before starting work, all persons charged with working on the Positioning clamping pin undertake

- to observe the basic regulations on work safety and accident prevention,

- to read the safety instructions and warnings in these Original operating instructions and confirm by signature that they have understood them.

### 2.2.3 Unauthorised persons

Unauthorised persons who do not meet the qualification requirements for the personnel are not aware of the dangers in the work area.

- Keep unauthorised persons away from the work area.
- If in doubt, speak to such persons and instruct them to leave the work area.
- Interrupt work as long as unauthorised persons are in the work area.

### 2.2.4 Instruction

The personnel must be instructed regularly by the operator. Record the execution of the instruction to better keep track.

Date	Name	Type of instruction	Instruction given by	Signature

## 2.3 General safety instructions

- The Positioning clamping pin may be put into operation and serviced only after these Original operating instructions have been taken notice of.
- Only use the Positioning clamping pin for their intended purpose (see “2.1 Intended use”).
- Do not loosen the Positioning clamping pin if there are other people in the danger zone.
- When operating the Positioning clamping pin, refrain from any kind of work that could impair the safety of persons or the Positioning clamping pin.
- Never operate the Positioning clamping pin with defective components. Never put built-in safety features out of operation.
- Always keep the work area of the Positioning clamping pin clean and tidy to avoid danger from dirt and parts lying around.
- Do not exceed the technical performance data (see "3.3 Technical data").
- Keep all safety and danger warnings on the Positioning clamping pin in a legible condition and renew them as necessary.
- Operation and work on the Positioning clamping pin may only be carried out by qualified or instructed personnel (see “2.2 Staff requirements”).
- In case of malfunctions, stop using the Positioning clamping pin immediately. Have faults rectified by appropriately trained specialists or by Erwin Halder KG .
- Always keep the Original operating instructions at the place the Positioning clamping pin is used. It must be ensured that all persons who carry out activities on the Positioning clamping pin can read the Original operating instructions at any time.

## 2.4 Safety measures for environmental protection

During all work, comply with the regulations on waste avoidance and proper waste recycling or disposal.

Particularly during assembly and maintenance work as well as during decommissioning, care must be taken to ensure that groundwater-polluting substances such as Cleaning liquids (containing solvents) and other chemical substances or emissions do not pollute the ground or enter the sewer system. These substances must be collected in suitable containers, and stored, transported and disposed of in accordance with national regulations.

## 2.5 Special danger warnings / residual dangers

### 2.5.1 Symbols used on the Lifting accessory



#### **Observe the Original operating instructions**

This symbol indicates that the Original operating instructions must be observed.



#### **CE marking**

The CE marking on the product is the manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation.



Keep all safety and danger information on the Positioning clamping pin in a legible condition. Renew this information as necessary.

### 2.5.2 Dangers due to the fixture or workpiece falling down



#### **WARNING**

##### **Risk of injury due to the fixture or workpiece falling down due to the opening of the Positioning clamping pin!**

Non-compliance can result in death or serious injury!

- Please note that during operation an opening of the Positioning clamping pin must be ruled out by suitable countermeasures.
  - During use or at work always wear the protective equipment necessary for the work in question.
  - Make sure that the systems, machines and technical equipment on which the Positioning clamping pin are used comply with the minimum requirements of the EC Machinery Directive 2006/42/EC (if applicable) and, in particular, have effective technical protective measures against possible mechanical hazards.
-

### 2.5.3 Dangers from hot surfaces

#### **WARNING**



**Danger of burns due to workpieces with high temperature!**

**There is a risk of burns from workpieces with high temperatures!**

Non-compliance may result in minor injuries!

- Give preference to automatic loading of the Positioning clamping pin.
- Wear protective gloves when loading and removing the workpieces.

### 2.5.4 Dangers due to incorrect use

#### **DANGER**

**When working with the Positioning clamping pin there is a danger due to incorrect use!**

A failure to observe this will result in death or serious injury!

- Please note that in case of overhead or horizontal use, the fixture or the workpiece must be secured against falling before opening the Positioning clamping pin,
- Never use the Positioning clamping pin as a protective device or safety function,
- Never use the Positioning clamping pin as a traction element,
- Prepare the installation sketch according to the specifications of the company Erwin Halder KG,
- Never squeeze or forget the sealing ring of the Positioning clamping pin,
- Never use the Positioning clamping pin without the locking device via hexagon socket (only inserted),
- Never use the Positioning clamping pin with constantly rotating loads,
- Never use the Positioning clamping pin to lift, hold or carry people,
- Inspect the Positioning clamping pin for visible defects or damage before each use,
- During use or at work always wear the personal protective equipment necessary for the work in question (protective clothing, protective gloves, safety helmet, and for overhead use, safety shoes).

### 2.5.5 Crushing hazards

#### **WARNING**



##### **Risk of injury due to crushing!**

Serious injuries may occur during operation!

- Never operate the Positioning clamping pin with defective components. Never put built-in safety components out of operation.
- Make sure that the Positioning clamping pin are properly fastened.
- Make sure that no limbs of your own or other persons are under suspended loads.

### 2.5.6 Dangers due to suspended loads

#### **WARNING**



##### **The following special hazards must be expected when operating the Positioning clamping pin:**

Hanging loads can fall down, causing a danger to life!

There is a danger of tipping over!

- During use or at work always wear the personal protective equipment necessary for the work in question (protective clothing, protective gloves, safety helmet and safety shoes).
- Make sure that you and other persons are not under suspended loads.
- Place or set down the load safely.
- The maximum load must not be exceeded (see "3.3 Technical data").
- Perform a daily function test before each start-up.
- In the event of mechanical damage, take the Positioning clamping pin out of operation immediately.
- Position lifters above the centre of gravity.

### 2.5.7 Dangers due to improper storage

#### **DANGER**

##### **Danger due to improper placement of objects!**

Improper placement of objects inside or on the Positioning clamping pin can lead to damage, malfunctions or total failure and impair safety!

- Please note that it is forbidden to place objects on the Positioning clamping pin. Remove all objects that are on the Positioning clamping pin.
- Make sure that workpieces are properly fastened.

### 2.5.8 Dangers due to the use of incorrect spare parts

#### **DANGER**

##### **Danger due to use of incorrect spare parts!**

Incorrect or faulty spare parts can lead to damage, malfunction or total failure and impair safety!

- Only use original spare parts.
- Obtain the spare parts from Erwin Halder KG. You will find the necessary information on spare parts in the enclosed parts lists or in "1.5 Service / Customer service".

### 2.5.9 Crushing and cutting hazards for hands

#### **WARNING**



##### **On the Lifting accessory there are crushing and cutting hazards for hands (movements of mechanical parts).**

A failure to observe this can result in serious injuries!

- While operating the Lifting accessory do not carry out any manual work on the Lifting accessory.
- During use or at work always wear the personal protective equipment necessary for the work in question (protective clothing, safety goggles, protective gloves and safety shoes).

### 2.5.10 Dangers from unauthorised persons

#### **DANGER**



##### **On the Lifting accessory there are dangers for unauthorised persons!**

A failure to observe this will result in death or serious injury!

- Check that there are no unauthorised persons on site.
- Ensure that unauthorised persons (non-operating and servicing personnel) are prevented from entering the operating area.

### 2.5.11 Dangers due to insufficient qualification

 **DANGER**

**Risk of injury in case of insufficient qualification!**

Improper handling of the Positioning clamping pin can lead to considerable personal injury and material damage!

- Have all activities carried out only by personnel qualified for them.
- 

### 2.5.12 Dangers when the Lifting accessory are used by multiple persons

 **DANGER**



**On the Positioning clamping pin there are dangers when the Lifting accessory are used by multiple persons!**

A failure to observe this will result in death or serious injury!

- Note that the Positioning clamping pin may only be used by one person.
  - Keep a sufficient distance away for safety during operation.
- 

### 2.5.13 Hazards due to contamination

 **WARNING**

**Danger from contamination (e.g. grinding sludge, oil and emission deposits, dust, chips, etc.) can impair the function of the Positioning clamping pin!**

A failure to observe this can result in death or serious injury!

- Always keep the Positioning clamping pin clean.
  - Ensure a clean working environment.
  - During use always wear the protective equipment necessary for the work in question.
-

### 2.5.14 Dangers due to damaged Positioning clamping pin



#### **WARNING**

**Danger of life-threatening injuries due to damaged Positioning clamping pin!**

A failure to observe this can result in death or serious injury!

- Before each use, check the Positioning clamping pin for visible defects (e.g. deformations, breaks, cracks, damage, missing balls, corrosion, function of the release).
  - Remove damaged Positioning clamping pin immediately from any further use.
-

## 2.5.15 Hazards due to Cleaning liquids (containing solvents) and other chemical substances or emissions

### WARNING

**On the Positioning clamping pin there are dangers due to Cleaning liquids (containing solvents) and other chemical substances or emissions!**

A failure to observe this can result in death or serious injury!

- Observe the safety regulations applicable to the product when handling Cleaning liquids (containing solvents) and other chemical substances or emissions.
- During use or at work always wear the protective equipment required for the work in question (respiratory protection, protective clothing, safety goggles, and protective gloves).
- After inhalation: Notify a doctor or poisoning treatment centre immediately. Remove affected persons to fresh air. Seek medical attention if signs/symptoms persist. Keep affected persons warm and calm. If unconscious, apply stable lateral position and seek medical advice. Keep the airways clear. Initiate artificial respiration in case of irregular breathing or respiratory arrest.
- After skin contact: Remove soiled, soaked clothing and shoes immediately. Wash the skin immediately with soap and plenty of water. Seek medical attention immediately if irritation persists. Wash soiled clothing before reuse. Clean shoes thoroughly before reuse.
- After eye contact: Immediately flush eyes with plenty of water for at least 10 minutes, including under the eyelids. Seek medical advice.
- After swallowing: Take the affected person out into the fresh air. If swallowed: Seek medical attention immediately. Keep the airways clear. Do not induce vomiting. Rinse the mouth with water. Aspiration hazard if swallowed - may enter and damage lungs.
- Please note that some auxiliary and operating materials are flammable, hazardous to health and dangerous.



## 2.6 Personal protective equipment

When operating the Positioning clamping pin, regardless of the workplace risk assessment, personal protective equipment must be worn in order to minimise health hazards.

- During use or at work always wear the protective equipment necessary for the work in question.
- Do not wear rings, chains or other jewellery.
- Follow the instructions on personal protective equipment.

The symbols have the following meaning:



### Protective clothing

Protective clothing is close-fitting work clothing with low tear resistance, with tight sleeves and no protruding parts. It mainly serves as protection against getting caught by moving parts of the Lifting accessory.



### Safety shoes

Wear non-slip safety shoes to protect against heavy falling parts or slipping on smooth surfaces.



### Protective gloves

Wear protective gloves to protect your hands from friction, abrasions, piercing or deeper injuries, and from contact with hot surfaces or chemical substances.



### Safety goggles

Wear safety goggles to protect against media escaping under high pressure or flying parts.



### Safety helmet

Wear a safety helmet to protect against falling or flying debris.



### Hearing protection

Wear hearing protection to protect against hearing damage.



### Respiratory protection

Wear appropriate respiratory protection if applicable material-specific dust limits are exceeded.

The personal protective equipment must be provided by the operator and must comply with the applicable requirements.

In addition, the national regulations as well as specifications from the workplace risk assessment and, if necessary, internal instructions of the operator must be observed.

## 2.7 Notices for emergencies

In emergencies, it is recommended that the procedures in the operating and maintenance instructions for the machine or system on which the Positioning clamping pin are installed be used.

### **Preventive measures**

- Always be prepared for accidents or fire.
- Keep first aid equipment (first aid kit, blankets, etc.) and fire extinguishing agents within easy reach.
- Familiarise personnel with accident reporting, first aid, fire fighting and rescue facilities.
- Keep the access routes for rescue vehicles clear.

### **Measures to be taken in the event of accidents**

- Trigger an emergency stop on the machine / system in which the Positioning clamping pin are used .
- Take the Positioning clamping pin out of service.
- Rescue people from the danger zone.
- In case of cardiac and/or respiratory arrest, initiate resuscitation immediately.
- In the event of personal injury, notify the first aid representative and an emergency doctor or the emergency services.
- Clear the access routes for rescue vehicles. If necessary, assign someone to instruct the rescue services.
- Extinguish burning oil/fat using a CO2 extinguisher or powder extinguisher and a fire in the electrical controls using a CO2 extinguisher.

## 2.8 Obligation of the operator

The Positioning clamping pin are used in the commercial sector. The operator of the Positioning clamping pin is therefore subject to the legal obligations for occupational safety.

In addition to the safety instructions in these Original operating instructions, the safety, accident prevention and environmental protection regulations valid for the area of

application of the Positioning clamping pin must be observed. The following applies in particular:

- The operator must ensure that the Positioning clamping pin are only used for their intended purpose (see "2.1 Intended use").
- The operator must always make the Original operating instructions available in legible condition and in full at the place of use of the Positioning clamping pin.
- The operator must clearly regulate and define the responsibilities for installation, commissioning, operation, maintenance and cleaning.
- The operator may only allow persons to work on the Positioning clamping pin who have reached the minimum legal age.
- The operator may only allow sufficiently qualified and instructed personnel to work on the Positioning clamping pin.
- The operator must ensure that all employees who interact with the Positioning clamping pin have read and understood the Original operating instructions. In addition, he must demonstrably train the personnel at regular intervals and inform them about the dangers.
- The operator must provide personal protective equipment for the personnel and ensure that it is used.
- The operator must ensure that no persons work on the Positioning clamping pin whose ability to react is impaired by drugs, alcohol, medication or similar.
- The operator must ensure there is adequate lighting in the work area of the Positioning clamping pin.

Furthermore, the operator is responsible for ensuring that the Positioning clamping pin are always technically in perfect condition. The following therefore applies:

- The operator must ensure that the servicing intervals described in these Original operating instructions are adhered to.
- The operator must have all components of the Positioning clamping pin checked regularly for proper functioning and completeness.
- The operator must regularly check that all safety and warning notices attached to the Positioning clamping pin are clearly legible and remain permanently attached to the Positioning clamping pin.

---

### 3 Description of the Positioning clamping pin

#### 3.1 Overview

All illustrations in this document are for providing a basic understanding and may differ from the actual design.

##### 3.1.1 Overview of functional elements

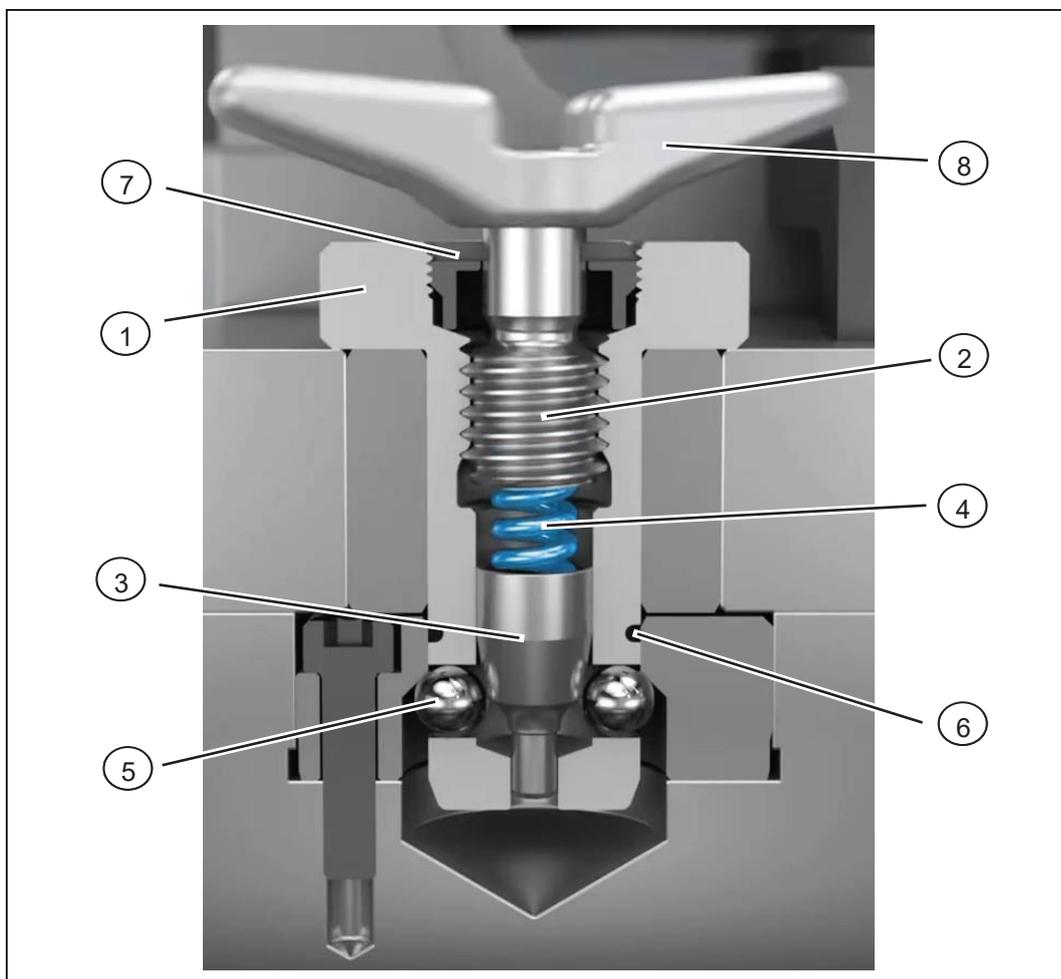


Figure 1: Overview of functional elements

- |   |         |   |                    |
|---|---------|---|--------------------|
| 1 | Sleeve  | 5 | Ball (4 pcs.)      |
| 2 | Spindle | 6 | O-ring             |
| 3 | Bolt    | 7 | Circlip            |
| 4 | Spring  | 8 | Handle (removable) |

### 3.1.2 Type plate overview / inscription

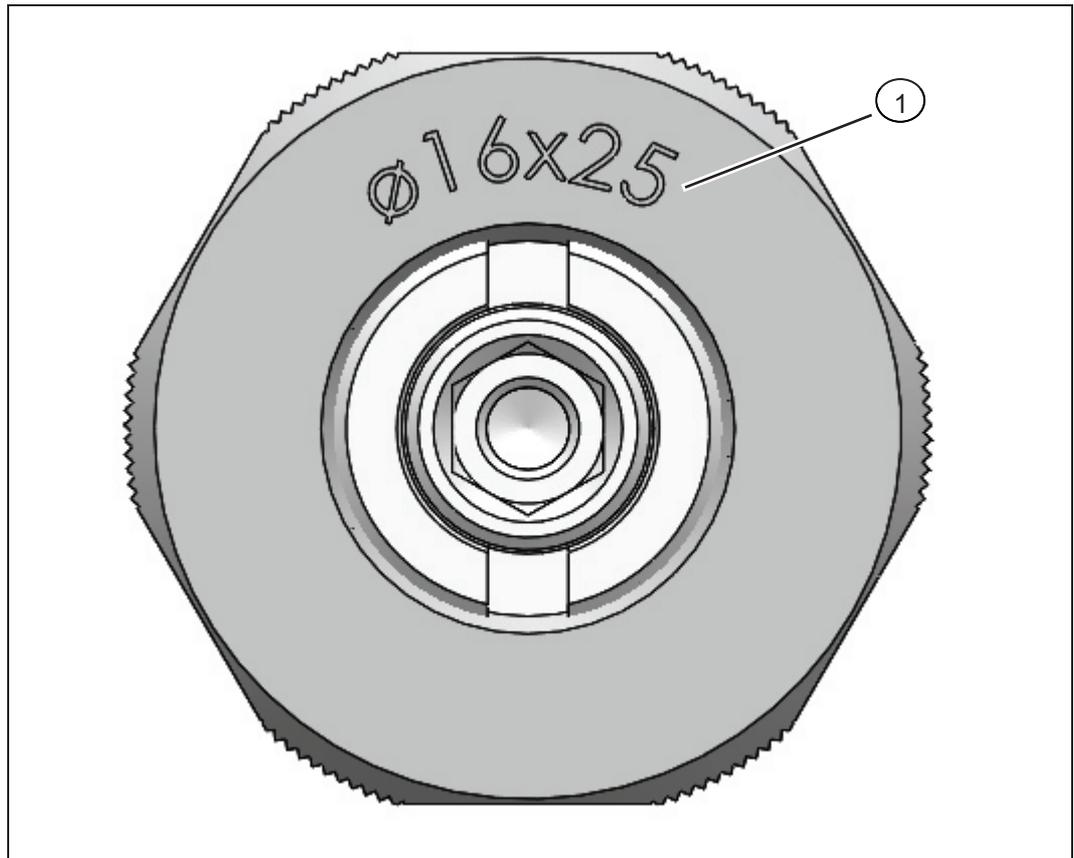


Figure 2: Type plate overview / inscription

- 1 Type plate / inscription, Positioning clamping pin

## 3.2 Functional description

The positioning clamping pins are exclusively intended for quick clamping, fixing, adjusting, replacing, securing and high-precision positioning of two components or fixtures.

The Positioning clamping pin (article group EH 23111) consist of the following components:

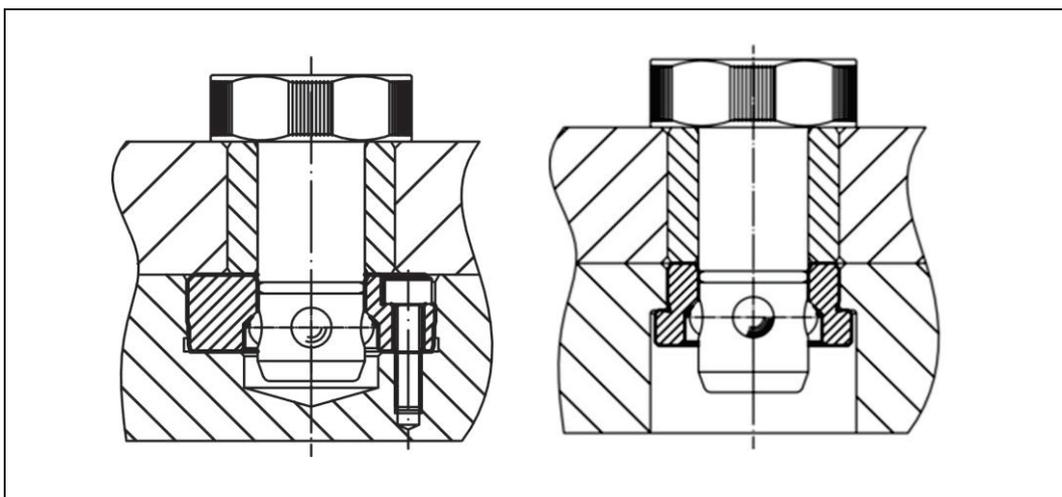
- Sleeve
- Spindle
- Bolt
- Spring
- Balls (4 pcs.)
- O-ring
- Circlip
- Removable handle

Using either the hexagon socket or the removable handle, the spindle is screwed into the positioning clamping pin until it comes to a stop. This preloads the spring and presses it against the bolt. The balls are pushed out due to the slope of the bolt. The balls cannot fall out of the sleeve because the ball holes are caulked.

The positioning clamping pin is released in the opposite direction. The spindle is screwed out of the positioning clamping pin until it reaches the stop. The stop is formed by the circlip. This releases the tension of the spring completely and the bolt is pushed back by the force acting on the balls when the positioning clamping pin is pulled out.

The O-ring serves to create a low resistance between the positioning clamping pin and the bore of the counterpart.

#### Installation examples:



### 3 Description of the Positioning clamping pin

#### 3.2 Functional description

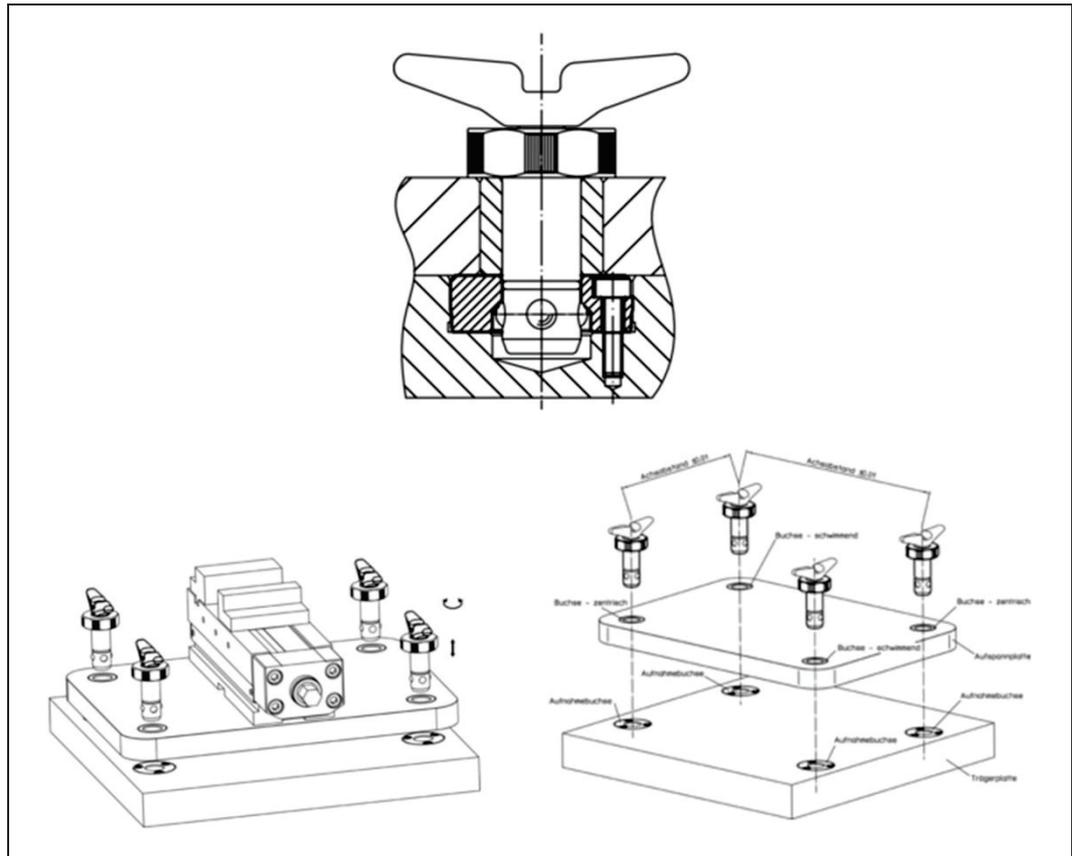


Figure 3: Installation examples

#### Fixation by handle:



Figure 4: Fixation by handle

**Fixation by hexagon socket:**



Figure 5: Fixation by hexagon socket

**Fixation by knurling and wrench flats:**



Figure 6: Fixation by knurling and wrench flats

### 3.2.1 Optional accessories EH 23111

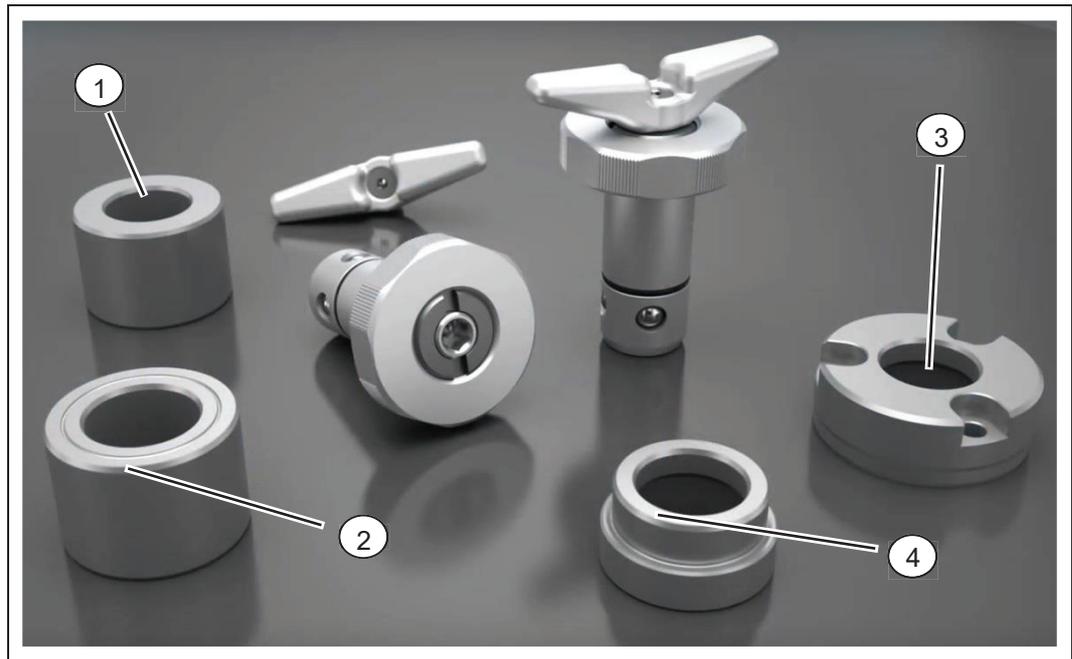


Figure 7: Optional accessories EH 23111

- |   |                  |   |                           |
|---|------------------|---|---------------------------|
| 1 | Floating bushing | 3 | Screw-on locating bushing |
| 2 | Centric bushing  | 4 | Press-in locating bushing |

### 3.2.2 Material EH 23111



Figure 8: Material EH 23111

- |   |  |
|---|--|
| 1 | Quenched and tempered steel, blackened         |
| 2 | Stainless steel 1.4542, precipitation-hardened |

3.2.3 Required tools

Tool	Property	Purpose
Hexagon socket	Size, see "3.3"	Alternative to the handle.

3.3 Technical data

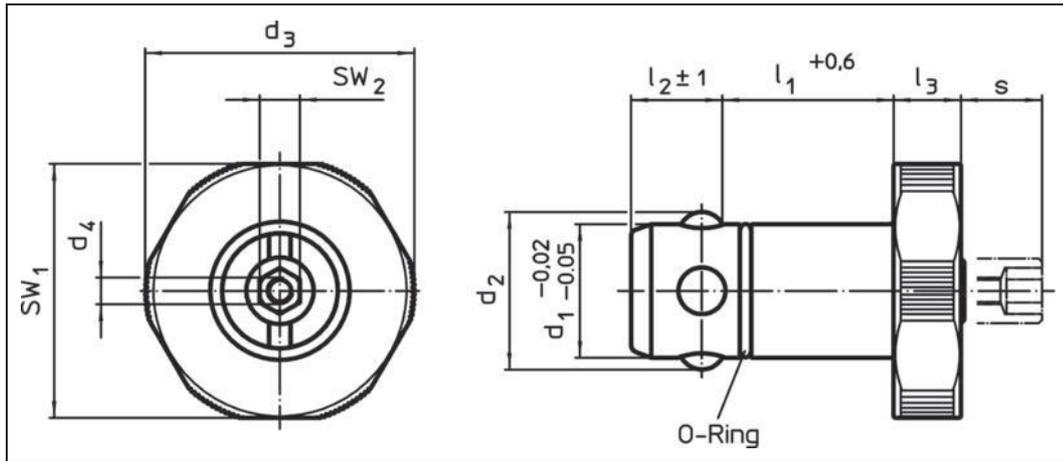


Figure 9: Dimensioned drawing

Dimensions								For clamping plates	SW <sub>1</sub>	SW <sub>2</sub>	Holding force	Weight	Item no.
d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	l <sub>2</sub>	l <sub>3</sub>	s						
-0.02 -0.05	+0.6				±1			[mm]	[mm]	[mm]	[kN]	[g]	
[mm]													
<b>Quenched and tempered steel</b>													
16	25	18.7	32	M4	13.6	10	9	20	30	6	5	105	23111.0016
16	30	18.7	32	M4	13.6	10	9	25	30	6	5	115	23111.0018
20	25	23.6	40	M4	13.6	10	9	20	38	6	6	170	23111.0020
20	30	23.6	40	M4	13.6	10	9	25	38	6	6	185	23111.0022
25	25	29.0	45	M4	18.6	10	9	20	43	10	8	255	23111.0025
25	30	29.0	45	M4	18.6	10	9	25	43	10	8	275	23111.0027
30	25	34.6	55	M4	18.6	10	9	20	53	10	10	375	23111.0030
30	30	34.6	55	M4	18.6	10	9	25	53	10	10	400	23111.0032
<b>Stainless steel</b>													
16	25	18.7	32	M4	13.6	10	9	20	30	6	5	105	23111.0116
16	30	18.7	32	M4	13.6	10	9	25	30	6	5	115	23111.0118
20	25	23.6	40	M4	13.6	10	9	20	38	6	6	170	23111.0120
20	30	23.6	40	M4	13.6	10	9	25	38	6	6	185	23111.0122

### 3 Description of the Positioning clamping pin

#### 3.3 Technical data

Dimensions								For clamping plates	SW <sub>1</sub>	SW <sub>2</sub>	Holding force	Weight	Item no.
d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	l <sub>2</sub>	l <sub>3</sub>	s						
-0.02 -0.05	+0.6				±1			[mm]	[mm]	[mm]	[kN]	[g]	
<b>25</b>	<b>25</b>	29.0	45	M4	18.6	10	9	20	43	10	8	255	<b>23111.0125</b>
<b>25</b>	<b>30</b>	29.0	45	M4	18.6	10	9	25	43	10	8	275	<b>23111.0127</b>
<b>30</b>	<b>25</b>	34.6	55	M4	18.6	10	9	20	53	10	10	375	<b>23111.0130</b>
<b>30</b>	<b>30</b>	34.6	55	M4	18.6	10	9	25	53	10	10	400	<b>23111.0132</b>

#### 3.3.1 Maximum load and number of permissible load cycles

Part number	Maximum load (in kg)	Number of permissible load cycles
<b>Quenched and tempered steel</b>		
23111.0016	-	10000
23111.0018	-	10000
23111.0020	-	10000
23111.0022	-	10000
23111.0025	-	10000
23111.0027	-	10000
23111.0030	-	10000
23111.0032	-	10000
<b>Stainless steel</b>		
23111.0116	-	10000
23111.0118	-	10000
23111.0120	-	10000
23111.0122	-	10000
23111.0125	-	10000
23111.0127	-	10000
23111.0130	-	10000
23111.0132	-	10000

#### 3.3.2 Ambient conditions

Permissible ambient temperature during operation	-30 °C to +120 °C
Permissible ambient temperature during storage	-30 °C to +120 °C
Permissible humidity	max. 60%

#### 3.3.3 Intended service life

The intended service life of the Positioning clamping pin, taking into account the intended use and maintenance intervals, is the maximum permissible number of load cycles (see "3.3.1 Maximum load and number of permissible load cycles") or 7 years.

---

## 4 Transport and storage

The Lifting accessory will be delivered to the customer by a transport company authorised by Erwin Halder KG .

### 4.1 Controls at the time of acquisition by the recipient

On arrival of the Positioning clamping pin at the customer's premises, they must be inspected for visible transport damage.

- Report any transport damage immediately to the delivering agent.

### 4.2 Packaging

A contributing factor to the choice of packaging is the transportation route. Unless otherwise contractually agreed, the packaging shall comply with the HPE packaging guidelines laid down by the Bundesverband Holzmittel, Paletten, Exportverpackung e.V. (Federal Association of Wood Products, Pallets, Export Packaging) and the Verein Deutscher Maschinenbauanstalten (Mechanical Engineering Industry Association).

- Pay attention to the symbols on the packaging:

Examples of symbols on packaging:

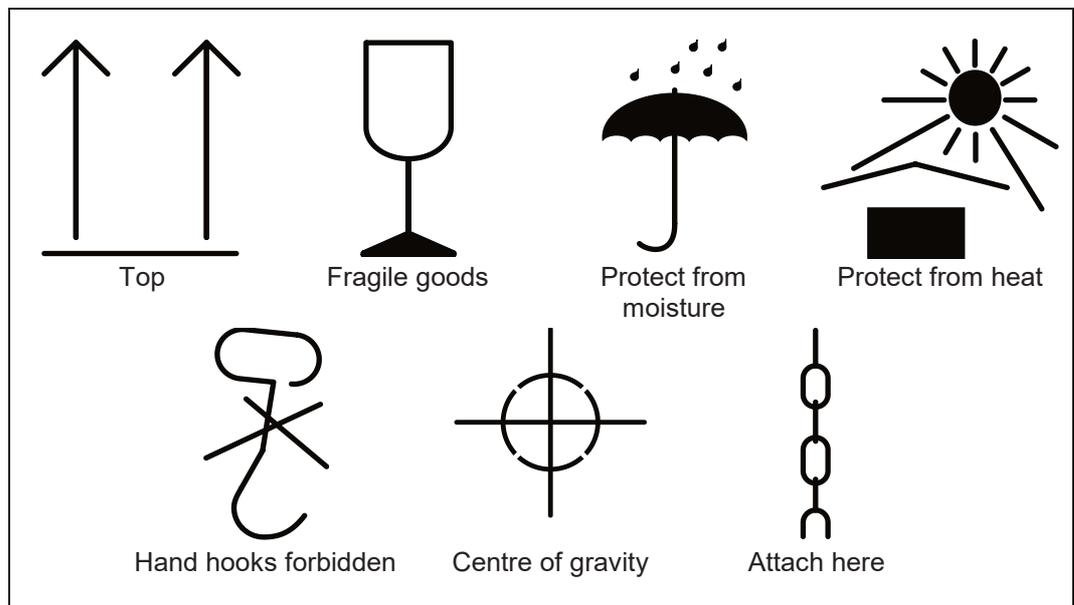


Figure 10: Examples of symbols on packaging

#### 4.2.1 Unpacking

Proceed as follows when unpacking the Positioning clamping pin

- Remove the packaging. Dispose of packaging materials such as foils and adhesive tapes properly.
- Do not throw away the original packaging. Keep it for re-transport.
- Check the delivery for completeness by comparing it to your order.
- It is essential that you keep the supplied documents; they contain important information on how to use the Positioning clamping pin.
- Check the package contents for visible transport damage.
- If you notice any transport damage or discrepancies between the contents of the package and your order, please inform Erwin Halder KG.

#### 4.2.2 Re-packaging

See chapter 4.2.1 Unpacking.

### 4.3 Notes on hazards during transport

#### WARNING



**The following special hazards must be expected when transporting the Positioning clamping pin (package units or pallets):**

Hanging loads can fall down, causing a danger to life!

A danger of tipping over exists during unsecured transport!

Protruding edges can lead to bruising or cuts!

- Only use approved load carrying devices.
- During use or at work always wear the personal protective equipment necessary for the work in question (protective clothing, protective gloves, safety helmet and safety shoes).
- Make sure that you and other persons are not under suspended loads.

- 
- Please also read the chapter "2 Safety".
  - The Positioning clamping pin or components may only be transported by appropriately qualified and instructed personnel (forklift / crane driver with qualification certificate) and in compliance with all safety instructions..
  - When selecting suitable lifting devices and lifting accessories, always consider the weight of the heaviest component.
  - Wear protective clothing, safety shoes, protective gloves and a safety helmet when working.
  - Always secure the transport route with an additional person.

## 4 Transport and storage

### 4.4 Permitted aids for transport

---

- Ensure that no persons are standing in the path of transport or under suspended loads.
- Always lift the packing units or pallets of the Positioning clamping pin slowly and carefully to ensure stability and safety.
- Do not remove transport safeguards (if present) until the component has been finally fixed in place at the location of use.

### 4.4 Permitted aids for transport

Shackles or hooks must be selected according to the transport weight of the packaging units or pallets of the Positioning clamping pin and are only to be attached to the holding points provided for this purpose.

Avoid contact of the carrying chains or ropes with the packing units or pallets of the Positioning clamping pin. If this is not possible, take appropriate precautions to prevent damage to the packing units or pallets of the Positioning clamping pin .

Adjust the length of the carrying means so that the packaging units or pallets of the Positioning clamping pin can be transported horizontally.

### 4.5 Scope of delivery

The scope of delivery of the Positioning clamping pin consists of the following components:

- Positioning clamping pin
- Original operating instructions

### 4.6 Interim storage

If the Positioning clamping pin are not used immediately after delivery, they must be stored carefully in a protected place. The Positioning clamping pin must be stored temporarily in such a way that they are protected from cold, moisture, dirt and mechanical influences.

For the recommended storage conditions for the Positioning clamping pin, please refer to chapter “3.3.2 Ambient conditions“.



In case of improper storage, no liability will be accepted for any damage caused!

---

## 5 Assembly

The Positioning clamping pin are completely assembled by Erwin Halder KG.

### 5.1 Notes on hazards during assembly

#### **WARNING**

##### **Risk of injury due to unsuitable assembly materials!**

Unsuitable assembly materials can lead to serious injuries during operation!

- Only use the supplied assembly materials.

### 5.2 Preparatory measures

Before assembling the Positioning clamping pin, make sure that

- Additional lighting equipment (hand-held lamps) is available for the work,
- The assembly area is cleaned and dust-free,
- The necessary tools are available for the assembly.

### 5.3 Choice of location of use

#### 5.3.1 Necessary operating and maintenance areas



When selecting the location of use, take into account the ambient conditions (see “3.3.2 Ambient conditions”).

When selecting the location of use, take into account the necessary operating and maintenance areas.

The clearance at the Positioning clamping pin should not be less than 1000 mm all round.

The operator must ensure there is adequate lighting in the location of use of the Positioning clamping pin.

### 5.3.2 Requirements for the location of use

#### **WARNING**

##### **Risk of injury due to instability!**

If incorrectly assembled, a risk of serious injury exists due to instability of the individual component groups when using the Positioning clamping pin!

- Note that the location of use must be:
  - flat, horizontal,
  - temperature resistant, non-flammable and
  - vibration-free
- Have the installation work carried out only by authorised and instructed personnel.
- During assembly, observe the tightening torques of all screw connections.
- During use or at work always wear the protective equipment required for the work in question (such as protective clothing and safety shoes).

#### **WARNING**

##### **Risk of injury due to lack of space!**

A risk of serious injuries such as scratches, piercing or broken bones exists from work equipment and/or components being arranged too closely together!

- The location of use of the Positioning clamping pin must be selected in such a way that the room to manoeuvre necessary for personnel in the work area is not restricted or impeded.
- Maintain the room to manoeuvre according to ergonomic guidelines and standards.
- Cordon off the danger area.
- Keep unauthorised persons away.
- Designate a person to be in charge.



When selecting the set-up location, take into account the necessary operating and maintenance areas.

The clearance at the Positioning clamping pin should not be less than the required room to manoeuvre all around.

---

## 6 Commissioning

### 6.1 Safety measures before commissioning

#### **WARNING**

##### **Risk of injury due to lack of space!**

A risk of injuries such as scratches, piercing or broken bones exists from work equipment and/or components being arranged too closely together!

- The set-up location of the Positioning clamping pin must be selected in such a way that the room to manoeuvre necessary for personnel in the work area is not restricted or impeded.
- Only allow qualified personnel to carry out commissioning.
- Cordon off the danger area.
- Keep unauthorised persons away.
- Designate a person to be in charge.

---

Make yourself sufficiently familiar with

- the operating elements of the Positioning clamping pin,
- the equipment of the Positioning clamping pin,
- the way the Positioning clamping pin works,
- the immediate vicinity of the Positioning clamping pin,
- the measures for emergencies.

Perform the following activities before initial commissioning or recommissioning:

- Check and make sure that all components are installed and working.
- Check the Positioning clamping pin for visible damage; immediately rectify any defects found or report them to the supervisory staff – the Positioning clamping pin may only be operated in perfect condition.
- Check and make sure that only authorised persons are in the work area of the Positioning clamping pin and that no other persons are endangered by use of the Positioning clamping pin.
- Remove all objects and other materials from the place of use that are not required for the operation of the Positioning clamping pin.
- Keep a commissioning log.

---

## 7 Operation

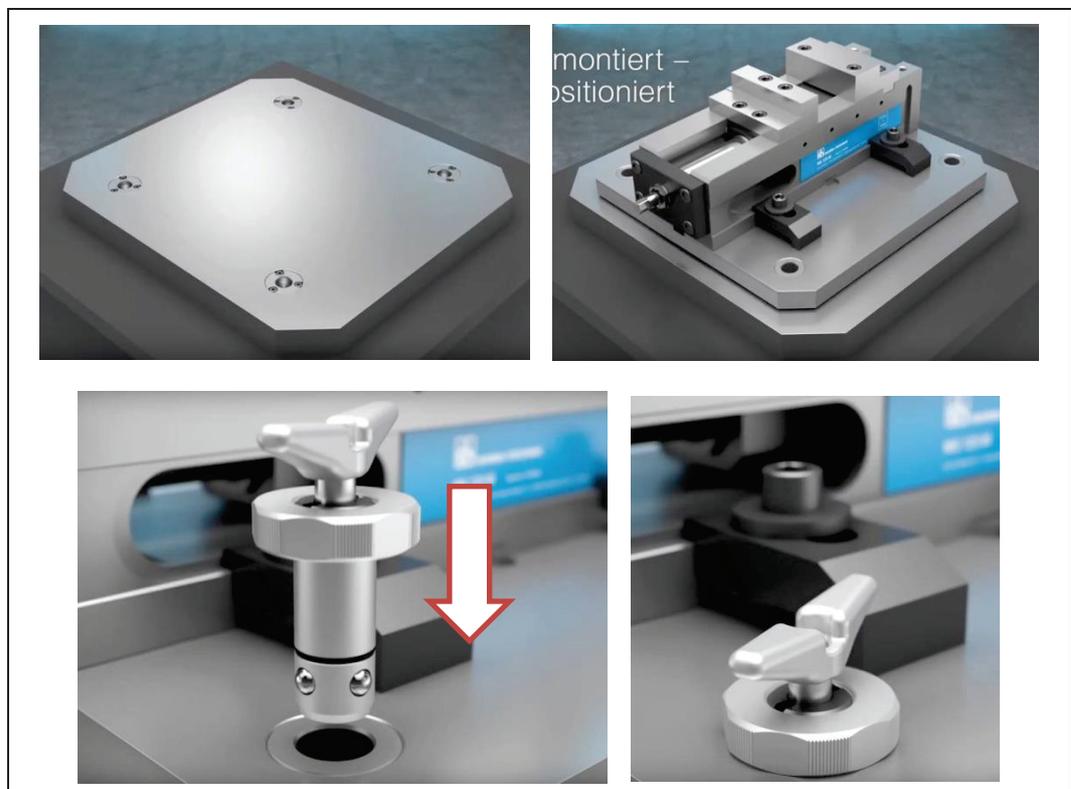
### 7.1 Safety measures during normal operation

- Do not remove or disable any components while the Positioning clamping pin are being used.
- Make sure that no unauthorised persons are in the work area of the Positioning clamping pin.
- Make sure that no persons or limbs of persons are under suspended loads during operation.

Perform the following control activities once a day:

- Check the Positioning clamping pin for externally visible damage.
- Check the function of all components of the Positioning clamping pin.

### 7.2 Example application



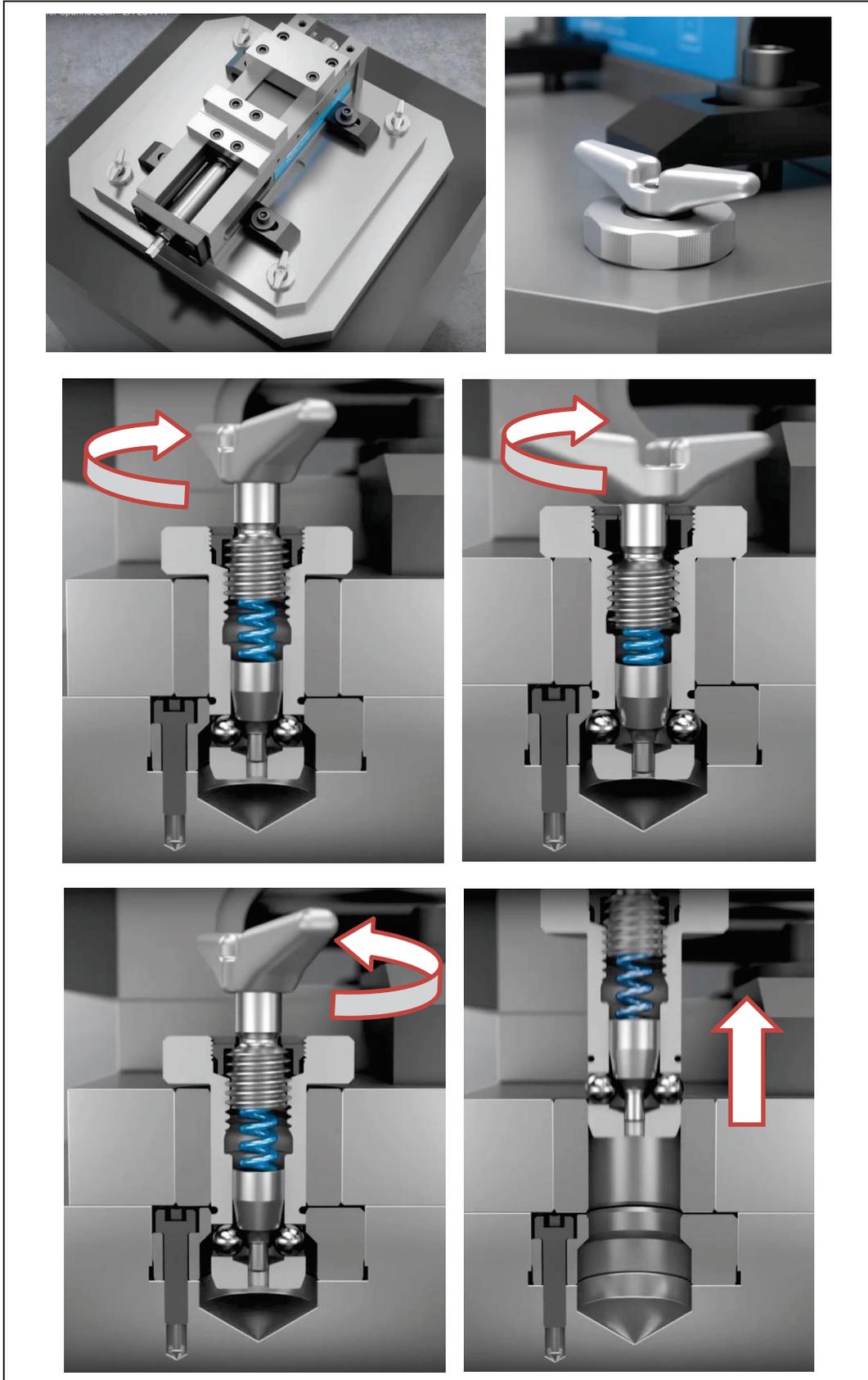


Figure 11: Example application

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## 8 Malfunctions

### DANGER

**On the Lifting accessory hazards exist during troubleshooting!**

Failure to observe the instructions may result in damage, malfunctions or total failure of the Positioning clamping pin, as well as impairment of the safety of the Positioning clamping pin!

- Only allow qualified personnel to carry out troubleshooting.
  - Take damaged Positioning clamping pin out of service immediately.
- 

### 8.1 Malfunctions and corrective measures

Malfunction	Cause	Corrective measures
<b>Balls can no longer be retracted</b>	Contamination in the ball bores	Clean the positioning clamping pin
<b>Balls can no longer be pushed out</b>	Exceeding of the service life or overloading by user	Replace positioning clamping pin
<b>Balls missing</b>	Improper handling	Replace positioning clamping pin

---

## 9 Maintenance

### 9.1 Safety measures during maintenance work

Carry out the prescribed maintenance work such as cleaning, lubricating, servicing and inspection on time.

Observe the maximum permissible load cycles (see "3.3 Technical data") and make the Positioning clamping pin unusable and dispose of them as soon as the maximums are reached. This applies even if no external wear is visible.

Note the following points before carrying out the maintenance work:

- Cordon off access to the work area of the Positioning clamping pin. Make sure that no unauthorised persons are in the work area of the Positioning clamping pin.
- Make sure that all components have cooled down to ambient temperature.
- Only carry out work on low-mounted components in a squatting position, not in a bent position. Carry out work on components mounted high up in an upright, straight posture.
- Immediately replace all Positioning clamping pin that are not in perfect working order.
- Only use original spare parts.
- Make sure that suitable collection containers are available for all substances (cleaning agents or other chemical substances) hazardous to groundwater.

After the servicing work has been completed and before using the Positioning clamping pin, carry out the following activities:

- Check all previously loosened screw connections once again for tightness.
- Check that all previously removed components are properly reinstalled.
- Make sure that all tools, materials and other equipment used have been removed from the work area.
- Clean the area of use. Remove any fluids that may have leaked out and similar substances.
- Make sure that all components of the Positioning clamping pin are working properly again.

## 9.2 Inspection and maintenance work

### 9.2.1 Maintenance intervals

Maintenance item	Maintenance work	see section
<b>Daily</b>		
Complete Positioning clamping pin	Visual inspection	9.2.2.1
<b>Weekly</b>		
Complete Positioning clamping pin	Cleaning	9.2.3.1
Complete Positioning clamping pin	Functional test	9.2.3.2
Complete Positioning clamping pin	Visual inspection, warning and information signs	9.2.3.3
<b>Annually</b>		
Complete Positioning clamping pin	Inspection by an expert	9.2.4.1

### 9.2.2 Maintenance - daily

#### 9.2.2.1 Visual inspection

- Check the Positioning clamping pin for
  - mechanical damage,
  - wear on the threads,
  - damaged O-rings,
  - dirt deposits and
  - unfamiliar noises.
- Report any damage immediately to your supervisor.

#### 9.2.3 Maintenance - weekly

##### 9.2.3.1 Cleaning

Proceed as follows to clean the Positioning clamping pin:

- Thoroughly clean all Lifting accessory components and remove dirt, dust and foreign objects from the entire Lifting accessory area. Use machine cleaning agents for this purpose. Never clean the Positioning clamping pin with high-pressure cleaners or degreasing cleaning agents.

##### 9.2.3.2 Functional test

- Check whether the balls are locked automatically by the spring force.
- Check all other components for functionality.
- Report any damage immediately to your supervisor.

##### 9.2.3.3 Visual inspection of warning and information signs

- Check all warning and information signs of the Positioning clamping pin for completeness and legibility.
- Report any damage immediately to your supervisor.

#### 9.2.4 Maintenance - annual

##### 9.2.4.1 Inspection by an expert

- Have load bearing equipment inspected by an expert at least once a year.
- Please also note that additional tests may be required according to the conditions of use and operational conditions or as extraordinary tests according to "Operation of load bearing equipment in hoisting operations "DGUV regulation 100-500 (previously BGR 500).

---

## 10 Dismantling and disposal

### DANGER



#### **Risk of serious injury due to improper decommissioning / disposal!**

A failure to observe this will result in death or serious injury!

- Have the disassembly work carried out only by qualified or instructed personnel. Note that the personnel must have practical experience in dismantling the Lifting accessory .
  - Do not stand under suspended loads during disassembly work.
  - Please note that in case of an overhead application or horizontal application, the fixture or the workpiece must be secured against falling before opening the Positioning clamping pin .
  - During use or at work always wear the protective equipment required for the work in question (e.g. protective clothing, safety shoes, protective gloves and safety helmet).
  - In case of doubt, please contact Erwin Halder KG.
-

## 10.1 Disassembly

### **WARNING**

#### **Danger from disassembly work!**

During disassembly there is a risk of injuries such as scratches, piercing or crushing!

- Only allow instructed and authorised personnel to carry out disassembly work.
- Please note that in case of an overhead application or horizontal application, the fixture or the workpiece must be secured against falling before opening the Positioning clamping pin .
- During use or at work always wear the protective equipment required for the work in question (e.g. protective clothing, safety goggles, safety shoes and safety helmet).

### **WARNING**

#### **Danger of injury due to work equipment arranged too closely together!**

A failure to observe this can result in death or serious injury!

- Cordon off the danger area.
- Keep unauthorised persons away from the danger area.
- Appoint a person to be responsible for the disassembly work.
- During use or at work always wear the protective equipment required for the work in question (e.g. protective clothing, safety goggles, safety shoes and safety helmet).

## 10.2 Disposal

### **WARNING**



#### **Risk of environmental pollution / waste of resources!**

A failure to comply can cause environmental damage!

- Only allow instructed and authorised personnel to carry out disposal work.
- Collect and separate liquids.
- Cleansers and auxiliary materials used to clean the Positioning clamping pin must be disposed of in accordance with local regulations and in compliance with the instructions in the manufacturer's safety data sheets.
- Separate materials and packaging waste by type and recycle them.
- Observe local recycling regulations.

---

## **11 Annex**

### **11.1 EC Declaration of Conformity**

On the following pages you will find the EC Declaration of Conformity for these Positioning clamping pin and the attached documents.



## EC Declaration of Conformity

(original declaration of conformity)

Manufacturer / Authorised Representative:	Erwin Halder KG Erwin-Halder-Straße 5-9 88480 Achstetten-Bronnen
Authorised person, for the compilation of the technical documentation:	Erwin Halder KG Erwin-Halder-Straße 5-9 88480 Achstetten-Bronnen
Product:	Positioning clamping pin
Article group:	EH 23111
Function:	The positioning clamping pins are exclusively intended for quick clamping, fixing, adjusting, replacing, securing and high-precision positioning of two components or fixtures.

We hereby declare that the Lifting accessory described above complies with all relevant provisions of the Machinery Directive 2006/42/EC.

Other standards applied:

- EN ISO 12100
- EN 13155

88480 Achstetten-Bronnen, 01.03.2024

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Stefan Halder, Management