

## Translation of the original manual

## Door mounting device EFA SL



Production no:

Store on the mounting device for future use!

Year of manufacture: 2024

CE

Manufacturer: Con4Tools GmbH –	Turnstrasse 11 – D-42289 Wuppertal
<b>Issue date:</b> from 05/2024	Amendment index: 01



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### 1.1 General information

This operating manual contains basic instructions which must be followed during installation, operation and maintenance. It is therefore imperative that the operator, industrial mechanic and fitter read these instructions before putting the equipment into service.

The door mounting device has been subjected to a safety and acceptance inspection. Nevertheless, danger to the user or third parties or damage to the door mounting device and other material assets can occur during use if it is used:

- it is operated by untrained or uninstructed persons.
- it is used for purposes for which it is not intended.
- it is not serviced or maintained properly.

In the event of incorrect operation or misuse, there is a risk for:

- The operator (risk of injury)
- The door mounting device and other material assets
- The efficient operation of the door mounting device

In addition to the general safety instructions listed in this section "safety", you must also follow those listed in the other sections and in the product specific operating manuals.

### This owner's manual must always be available at the place of use of the door mounting device!

All persons involved in setting up, putting into operation, operating and maintaining and servicing the door mounting device must:

• follow this operating manual and the product-specific operating manuals exactly.

## This concerns your safety



## Safety 1.0



## 1.2 Meaning of the symbols



Safety instructions in the operating manual which are marked with the general hazard symbol are those which can put people in danger if not followed.



Warning of hand injuries



Do not walk under suspended loads



Wear safety shoes



Do not overload the door mounting device



Operating manual



You will find this symbol with safety instructions which, if not followed, may put the door mounting device and its functions at risk.



These are suggestions or instructions which make it easier for you to work and operate safely.





## 1.3 Dangers which arise from not adhering to the safety instructions

Not following the safety instructions can lead to the loss of any rights to claim compensation.

In particular, not following the instructions can result in the following dangers:

- Failure of important functions of the door mounting device
- Putting persons in danger from mechanical action

## 1.4 Personal protective equipment

The door mounting device may only be commissioned and operated with the prescribed protective equipment.



Safety shoes must be worn at all times on the door mounting device.

### 1.5 Safety instructions

## **General information and measures**

- 1. Only use the door mounting device for the purpose described under Section *"1.6 Intended use"*.
- 2. Never work with a damaged door mounting device. Immediately have the door mounting device inspected for faults and repaired and maintained by a specialist.
- 3. All operators may only put the door mounting device into operation when wearing their safety shoes.
- 4. Only store the door mounting device in a clean and dry place.



#### <u>1.5 Safety instructions</u>

## Door mounting lifter specific regulations

- 1. The door mounting device is only suitable for mounting and dismounting car doors.
- 2. The safety instructions must be followed in each case.
- 3. Section *"3.0 Operation"* in the owner's manual describes in detail how to operate the door mounting device correctly.
- 4. Only trained workshop personnel are permitted to carry out repair and maintenance work on the door mounting device.
- 5. The care and maintenance work on the door mounting device is described in detail in the owner's manual in section:
  - *4.0 Care activities (operator)*
  - 5.0 Maintenance / servicing (trained workshop personnel)

#### 1.6 Intended use

The door mounting device is only suitable for mounting and dismounting car doors. The maximum load capacity of the door mounting device is  $350 \ kg$ . The door mounting device may only be used in a proper condition.





Load suspension door mounting device



### **Safety** 1.0



### 1.6 Intended use

Any other or additional uses of the door mounting device, such as lifting machines, metal containers or other items, are not considered intended use

Any consequential damage is the sole responsibility of the user/owner of the door mounting device.

This also applies to arbitrary modifications or tampering.

The door mounting device has been subjected to a safety and acceptance inspection. Arbitrary conversions of and modifications to the door mounting device are forbidden for safety reasons!

The use, maintenance and servicing conditions and the product specific operational sequence plans specified in this operating manual and in the operating manuals of the purchased parts must be strictly adhered to.

Intended use also includes following the instructions

- concerning the safety,
- operation,
- maintenance, servicing and fault elimination

described in this operating manual and in the product specific operating manuals.



### Safety 1.0



Intended use 1.6



Door mounting device

Load	Length	Width	Height	Weight
max. 350 kg	max. 1110 mm	max.	max. 1760 mm	approx.
		820 mm		120 kg





#### <u>1.7 Dangers from accessories</u>

The lifting/holding function on the door mounting device must not be disabled or impeded by the attachment of additional accessories.

#### 1.8 Residual dangers

Certain residual dangers remain when handling the door mounting device, even when all the safety regulations are followed.

All employees working on and with the door mounting device must be familiar with these dangers and must follow the instructions which prevent these residual risks from leading to accidents or damage.



Never walk under suspended loads



Door mounting device with car door

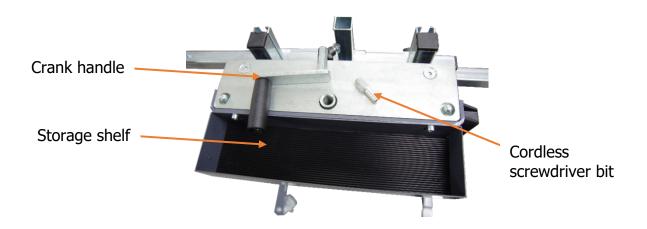


### 1.9 Workstation door mounting device

Area 1: The manoeuvring handles (left and right) for positioning the door mounting device are located in the front area.



Area 2: The storage compartment for storing the hand crank and drive bit is also located in the front area. The hand crank is used for precise height adjustment of the door mounting device. The drive bit is used with a cordless screwdriver for quick height positioning of the spindle mechanism.





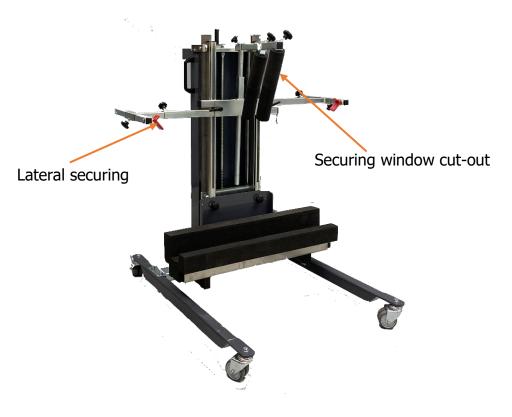
## 1.9 Workstation door mounting device

Area 3: The mounting rail with the special support for the door rebate is located in the lower area of the mounting device.



Bottom door rebate mounting

Area 4: The adjustment device for securing the driver's door in the mounting device is located in the upper area.



Lifting attachment on the load arm





1.10 Authorised persons

The minimum age for operators is 18 years. Responsibilities for the different activities on the door mounting device must be specified and clearly adhered to. Unclear responsibilities represent a safety risk.

The operator may only put the door mounting device into operation after he has read, understood and signed the owner's manual and has also been briefed on the door mounting device.

<u>Operators:</u>	Persons who have been instructed in the normal operation of the door mounting device
Maintenance personnel:	Persons with industrial mechanical training and who have

received instruction for the door mounting device

Persons to be trained or instructed or persons undergoing general training may only take part in working with door mounting device under the constant supervision of an experienced specialist!

### 1.11 Confirmation of technical personnel (instructors)

With their signature, the qualified personnel confirm that they are familiar with the basic regulations on occupational safety and accident prevention and have been instructed in the use of the door mounting device. Have read and understood the owner's manual before starting work.

Date:	Signature:
Date:	Signature:





1.12 Owner



The owner is responsible for only allowing persons to work on the door mounting device who are familiar with the basic industrial safety and accident prevention regulations and have been instructed in handling the door mounting device.

He must also ensure that all maintenance and installation work is carried out by maintenance personnel who are sufficiently informed by studying the operating manual in detail.

## The owner must



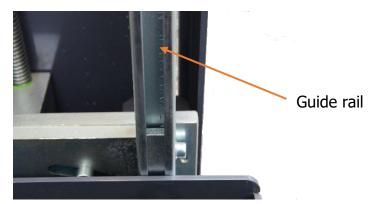
- make the operating manual accessible to the operator.
- make sure and acquire a signature to confirm that the operators and the technical personnel have read and understood the operating manual. (Chapter 1.12)
- instruct the operators and the maintenance staff on the door mounting device and document this instruction.
- fill in the fault list in Chapter 4.4 and make it accessible to Con4Tools GmbH.
- provide the personal protection equipment needed to operate and maintain the door mounting device.
- additionally carry out and document instructions on the test hazards when handling the door mounting device.
- check at regular intervals that the operator is working in a safety-conscious manner.
- inspect the door mounting device at least every six months to ensure that it is in proper condition.
- check the safety signage on the door mounting device at least once every six months to ensure that it is in proper condition.
- have an expert carry out a repeat inspection on the door mounting device and document it.





## 1.13 Safety measures at the installation site

• The door mountings must sit securely in the guide rail



## An improperly guided door mounting means risk of injury!

The door mounting device must be set up on the swivel rollers on a level and firm surface so that it is stable.



## If the door mounting device falls over or rolls uncontrollably, there is a risk of injury!



Ensure that the work station environment is always clean and clear by implementing appropriate in-plant instructions and inspections.





1.14 Safety devices



• Safety devices are installed for the safety of the operating personnel and must not be altered, removed or bypassed by modifying the door mounting device under any circumstances.



## 1.15 Noise level

The noise measurement was carried out on the door mounting device for the workstation at a distance of 1.0 m from the machine surface and 1.60 m above the floor.

A sound pressure level of less than 80 dB(A) was found during the working process.

## 1.16 Lighting

The operator of the door mounting device must ensure sufficient lighting at the workplace. At least 300 LUX is necessary for the assembly work station.



## 1.17 Checking the safety device

Use the check list in Chapter 1.18 to check the device every time after repair and maintenance work.

All the safety devices must be properly attached and operational every time before putting the door mounting device into operation.

Safety devices may only be removed

- at standstill.
- Protection against restarting of the door mounting device.



The general test instructions and functional tests must be carried out without assembly materials.

## Eliminate any defects found on the safety devices immediately!

### Test intervals



- At the beginning of the shift
- (operation interrupted)

Once a week

- (continuous operation)
- Each time after maintenance and repair

Test contents



- Stipulated condition
- Stipulated position
- Secure attachment
- Stipulated function



## 1.18 Checklist protective device door mounting device

General inspection

Protective cover	Installed and firmly screwed down	
Finger pinch protection	Installed and not damaged	
Manoeuvring handles	Installed and not damaged	
Load handling rails	Installed and not damaged	

Carry out the following functional check

Spindle mechanism operation	UP and DOWN	
Door holder function	Adjustable and lockable	

5x operating sequences	no malfunction	
------------------------	----------------	--

Test date:

Tester /signature:



### 1.19 Creating operating instructions

The owner of the door mounting device must ensure that operating instructions are prepared on the basis the owner's manual. These operating instructions must be posted at the workstation and followed by the operators. When preparing the operating instructions, the industrial safety instructions specified under Point 1.0 of this operating manual must be included.

## 1.20 Safety specialist



Before putting the door mounting device into operation, it must be inspected for safety and the inspection documented by a safety specialist. The door mounting device may only be used in the manufacturing process after the inspection report has been prepared and after it has been approved by the safety specialist.

### <u>1.21</u> Arbitrary changes and spare part production

Changes to or modifications of the door mounting device are only permissible by arrangement with the manufacturer. The manufacturer is Con4Tools GmbH. Original spare parts and accessories authorised by the manufacturer ensure safety. No liability can be accepted for the consequences of using other parts.

## 1.22 Storage location owner's manual



The owner's manual must be available with the door mounting device at all times.





## 2.1 Installation plan



Scope of supply

Assembled







#### 2.2 Technical data

Data door mounting device

Dimensions	L 1110 mm x W 820 mm x H 1760 mm
Total weight	approx. 120 kg
Max. travel – spindle mechanism	max. 640 mm
Max. load capacity of spindle mechanism	max. 350 kg (200 mm distance to the spindle)
Max. height of chassis/ ground clearance	max. 120 mm

#### 2.3 Incoming goods inspection

Examine the packing for visible damage. However, if the door mounting device was delivered with apparently intact packing but was found to have hidden damage, immediately inform Con4Tools GmbH and document the damage. (Pictures)

Scope of supply:

Spindle lifting mechanism	1x
Base plate with guide rails	1x
Chassis, long	2x
Bottom door mounting rail	1x
Top door fastening	1x
Crank handle	1x
Cordless screwdriver bit	1x
Tray	1x





## 2.4 Safety instructions for transport

Wear safety helmet, safety shoes and protective gloves when working.







Only use appropriate lifting equipment which has been tested!

Only use suitable lifting tackle, such as lifting ropes or flat lifting slings! Always allow for the maximum loads when selecting the lifting equipment and lifting tackle!



Never walk under suspended loads!

Always make sure that the door mounting device is transported smoothly and without bumping.

Only use suitable, standard, tested lifting equipment (fork-lift truck, truck crane and hall gantry crane) and lifting tackle (round slings, flat lifting slings and chains) when transporting to the site where it is to be set up.

See technical specifications for dimensions and weights (Chapter 2.2)

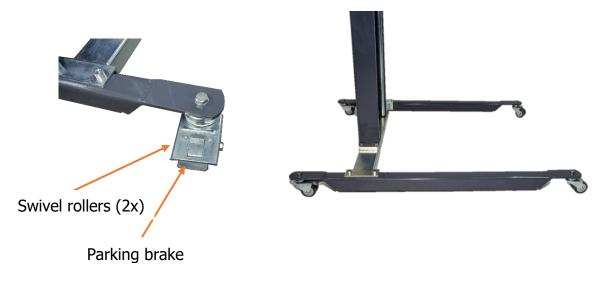




### 2.5 Transport/storage

Two swivel rollers and two rollers with a parking brake have been attached to the heavy duty chassis in order to transport the door mounting device in-house and make it possible to move it.

Store the door mounting device in a location protected from the weather.



## 2.6 Using the door mounting device

Make sure that the door mounting device can be operated reliably and that there are no other people in the work area.

Look out for any mechanical damage to the door mounting device.

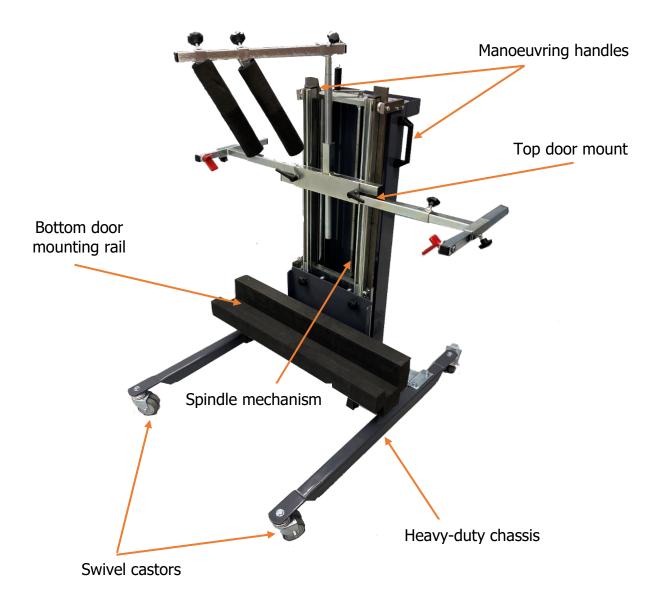


Do not overload the door mounting device (max. load 350 kg)

The initial inspection and approval test of the door mounting device were carried out by Con4Tools GmbH before delivery.



3.1 General view





#### 3.2 Safety instructions for operation

The door mounting device may only be used when it is in perfect condition and may only be used as intended, with awareness of safety and the dangers, in compliance with this operating manual.

The door mounting device may only be put into operation when assembled and ready for operation.

The door mounting device may only be operated when all the safety devices (see Chapter 1.14) are present and operational!

The stipulated personal protection equipment must be used during operation.

Inspect the door mounting device at least once every shift for externally visible damage and defects!

Immediately report any changes (including changes in operating behaviour) to the body or person in charge! If necessary, stop the door mounting device immediately and secure it.

In the event of malfunctions, the door mounting device must be immediately shut down and made safe! Malfunctions must be eliminated immediately by the specialists trained for the purpose.



Have you read the operating manual - *particularly Chapter 1*, Safety and safety devices - and did you understand it?

You are not permitted to operate the door mounting device before you have done so.

#### 3.3 Before startup

Before startup, check that the door mounting device is properly mounted and aligned.





## 3.4 Description of function

1. Position the mounting device on the vehicle door so that the door mounting rail is positioned under the door rebate.



2. Use the crank handle to guide the door support rail under the door rebate.





#### 3.4 Description of function

3. Check whether the door rebate lies evenly in the mould insert, if necessary readjust the door support rail by swivelling it.



4. Secure the door by means of the upper door holder either with the red rubberised V-shaped clips on the side rebates or with the counter-holders encased in black hard foam on the window frame or the window cut-out.







## 3.4 Description of function

- 5. The vehicle door can now be detached from the vehicle as it is securely held in the mounting device.
- 6. The vehicle door is fitted in reverse order.







## 4.0 Fault 😭

#### 4.1 Safety instructions for faults, maintenance and servicing



The fault elimination and maintenance work on the door mounting device may only be carried out by maintenance staff who have been instructed about the dangers encountered during repair and maintenance work.



During maintenance work and troubleshooting, it may be necessary for movements to be carried out on the door mounting device. Intervening in the movement processes of the door mounting device during maintenance work or troubleshooting is strictly forbidden.

The operating personnel must be informed before beginning to carry out the repair. A supervisor must be designated.

A generous space must be cordoned off around the work area when necessary!

It is essential to use appropriate workshop equipment for repairs and maintenance work in every case.

Screwed joints which are undone during repairs and maintenance work must always be re-tightened!

If it is necessary to dismantle the door mounting device in order to carry out repair work, it must be re-assembled and checked immediately after the repair work is finished!

#### 4.2 Malfunctions on the door mounting device



Once the maintenance personnel have eliminated a fault, it must be recorded on the "Fault verification" form (Chapter 4.4).



## 4.0 Fault

## 4.3 Checklist for malfunctions

Malfunction	Possible cause	Remedies
Door mounting device cannot be moved	Defective swivel roller Swivel roller arrested with brake	Replace swivel roller Release brake on the swivel roller
Spindle mechanism does not start up	Support nut stuck in the lower bearing when moving off	
Spindle mechanism does not shut down	Support nut stuck in the upper bearing when moving up	

## 4.4 Fault list

Type:\_\_\_\_\_ Door mounting device no.:\_\_\_\_\_

Date	Description of fault	Operating hours/days of use	Signature



## 5.0 Care activities (operator)



#### 5.1 Care plan

WHAT?	WHEN?	WHO?
Cleaning the door mounting device	every week	Operator

## Any damage found must be reported immediately!

### 5.2 Cleaning the door mounting device

The door mounting device may only be cleaned using a brush or cloth without the use of petrol or solvents, as this could otherwise damage the door mounting device.

Environmental protection:

Rags which contain oil must be collected and disposed of in an environmentally compatible manner.





The treatment and use of lubricants is regulated by the national regulations on environmental protection and industrial safety as well as the specifications of the lubricant manufacturers. The regulations must be complied with



## 6.0 Maintenance/servicing (industrial mechanic)

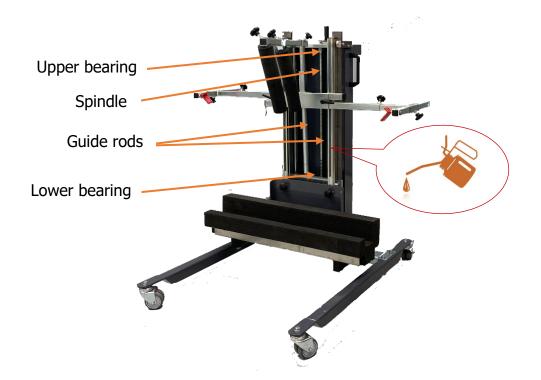


## 6.1 Maintenance schedule

WHAT?	WHEN?	WHO?
Threaded spindle, bearings	every week	Maintenance personnel
Guide rods	every week	Maintenance personnel
Screws, bolts and split pins	every six months	Maintenance personnel

## Any damage found must be reported immediately!

## 6.2 Cleaning the threaded spindles and bearings



#### 6.3 Cleaning the guide rods

Clean the guide rods with a rag and then spray with an spraying oil, e.g. WD-40.

## 6.4 Checking screws, pins and fasteners

Check all fastening screws, pins and split pins for tightness and damage.



## 7.0 Maintenance/servicing

7.1 List of maintenance tasks

 Type:\_\_\_\_\_
 Project no:\_\_\_\_\_

Date	Description of work	Operating hours	Signature





## 8.1 Spare parts ordering and customer service

We state categorically that we have not tested and approved any spare parts and accessories which we ourselves have not supplied. Installing and/or using such products may therefore impair and change the design characteristics of the door mounting device in a negative way. We are not liable for the consequences of using spare parts which we have not approved.

## **Important for all further inquiries**



Please note all the data on the nameplate of the machine and submit these data when making further inquiries or orders for spare parts



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## 8.0 Spare and wearing parts list



### 8.2 Spare parts list

Basic unit, EFA\_SL:

Part number	Item name	Packing unit
EFA_SL-80-10	Swivel roller	1 piece
EFA_SL-80-20	Swivel roller with brake	1 piece
EFA_SL-80-50	Crank handle	3 pieces
EFA_SL-80-55	Cordless screwdriver bit	5 pieces

## Door holding device, EFA\_SL:

Part number	Item name	Packing unit
EFA06-80-60	Star grip	5 pieces
EFA06-80-80	Moulded insert door mount	1 piece
EFA06-80-95	Protective tubes for upper mechanical support	2 pieces
EFA06-80-61	Handbrake short	2 pieces
EFA06-80-62	Handbrake long	2 pieces

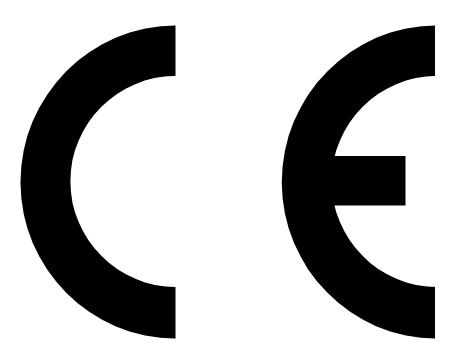
### 8.3 Wearing parts

1	Moulded insert for bottom door mount
2	Protective tubes for upper mechanical support
3	Fastening screws M10 x 30 socket head



## 9.0 Declaration of conformity **( (**

9.1 Certificate of conformity







## Konformitätserklärung Anhang II A Declaration of Conformity

#### Wir, Fa. Con4Tools GmbH

We, the company Con4Tools GmbH

(Name des Anbieters / *supplier's name*) Turnstraße 11, D-42289 Wuppertal

(Anschrift / address)

erklären in alleiniger Verantwortung, dass das Produkt declare under our sole responsibility that the product,

CE

Türmontagevorrichtung EFA\_SL Produktions-Nr.: Baujahr: 2024

(Bezeichnung, Typ / name, type)

auf das sich diese Erklärung bezieht, mit der/den folgender/en Normen/en oder normativen Dokument/en übereinstimmt. *to which this declaration relates, conforms to the following standard/s or other normative document/s* 

#### DIN EN ISO 12100:2010, Sicherheit von Maschinen EN 1494:2000+A1:2008, Fahrbare oder ortsveränderliche Hubgeräte

Titel und/oder Nr. sowie Ausgabedatum der Norm/en oder der anderen normativen Dokumente / Titel and/or number and date of issue of the standard/s or other normative document/s)

Gemäß den Bestimmungen der Richtlinien according to the provisions of the Directive/s

#### 2006/42 EG (Maschinen-Richtlinie / Machinery Directive)

(Titel und /oder nr. sowie Ausgabedatum der Norm/en / Titel and/or number and date of issue of the standard/s)

Die technische Dokumentation und die Risikobeurteilung wurde von Herrn Stefan Padovan, Im Lonscheid 36, 58135 Hagen (CE-Beauftragter) erstellt und dokumentiert.

Con4Tools GmbH

Wuppertal, den 23.05.2024 (Ort und Datum der Ausstellung / place and date of issue) Geschäftsleitung

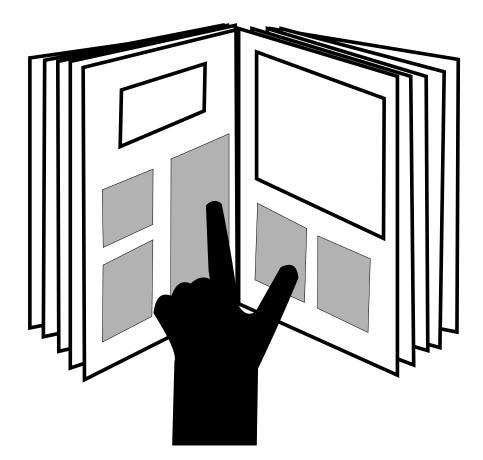
(Name und Unterschrift des Befugten / name and signature of authorized person)



## 10.0 Instruction of operating and maintenance personnel



10.1 Training





## 10.0 Instruction of operating and maintenance personnel



## 10.1 Training

Unterv	weis für die veisung von enpersonal	erweisende Firma / Unterweisender:
Zu unterweisende Firma:	Abteilung: Ort: Datum, Uhrzeit:	Anlass der Unterweisung:
Inhalt der Unterweis	sung	
Beschäftigung ausgesetzt s ausdrücklich unterwiesen	ind, sowie über die Einrichtungen und worden, sind. Vor der erstmaligen mit Gefahrstoffen wurden die Bediener	ng: - und Gesundheitsgefahren, denen sie bei der Maßnahmen zur Abwendung dieser Gefahren Beschäftigung an Maschinen, gefährlichen über die besonderen Gefahren dieser Arbeiten
Unterwiesene		
Name	Vorname	Unterschrift
Nächster Unterweisungstermin	Geplante Themen:	Unterschrift (Unterweisender)



## 10.0 Instruction of operating and maintenance personnel



## 10.1 Training

Nachweis für die Unterweisung vo Wartungspersona	e n	rma / Unterweisender:
	əilung: um, Uhrzeit:	Anlass der Unterweisung:
Inhalt der Unterweisung		
Erk Hiermit bestätigen die Unterwiesenen, dass sie Beschäftigung ausgesetzt sind, sowie über di ausdrücklich unterwiesen worden, sind. V Arbeitsstellen beim Umgang mit Gefahrstoffen sowie über das richtige Verhalten unterwiesen	e Einrichtungen und Maßnahn or der erstmaligen Beschäft wurden die Bediener über die	nen zur Abwendung dieser Gefahren tigung an Maschinen, gefährlichen
Unterwiesene		
Name	Vorname	Unterschrift
Nächster Unterweisungstermin Ge	eplante Themen:	Unterschrift (Unterweisender)



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## **11.0 Technical documents**



11.1 Operating manuals of components

