

## Doctor Holder

# Operating Manual

Product description: CLOUTHFLEX-18/35 AS



Serial number:

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## Doctor Holder

### 1 General

#### 1.1 Information on these instructions

These instructions contain important information on the safe and proper use of the doctor holder. It is intended for persons who are entrusted with the installation, commissioning, operation and maintenance of the product. The doctor holder is an aid.

#### 1.2 Explanation of Symbols

In this manual, the following icons are used.



#### **DANGER!**

**Type and source of danger!**

A failure to comply with a danger notice with the signal word “Danger” will cause death or extremely serious injuries.

Take this measure to prevent the danger.



#### **WARNING!**

**Type and source of danger!**

A failure to comply with a danger notice with the signal word “Warning” can cause death or extremely serious injuries.

Take this measure to prevent the danger.



#### **CAUTION!**

**Type and source of danger!**

A failure to comply with a danger notice with the signal word “Caution” can cause injuries.

Take this measure to prevent the danger.



#### **NOTE:**

A “Note” indicates additional information to work easier and better, or provides notes for using the doctor holder.

#### 1.3 Limitation of liability

The manufacturer is not liable for damage caused by improper use or non-compliance with these operating instructions.

#### 1.4 Declaration of incorporation in accordance with the Machinery Directive 2006/42/EG:

The doctor holder is initially supplied as an aid. When connected to the overall machine, it becomes partly completed machinery in the sense of the Machinery Directive 2006/42/EG.

The operator is obliged to carry out a new risk assessment after connection to the overall machine in order to ensure the safety of the overall system.

At the request of the operator, the manufacturer shall issue a declaration of incorporation certifying that the doctor holder complies with the essential requirements of the Machinery Directive 2006/42/EG.

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### 1.5 Copyright

These instructions are protected by copyright. Reproduction or disclosure to third parties is only permitted with the express permission of the manufacturer.

### 1.6 Guarantee and Warranty

Our General Terms and Conditions (GTC) apply exclusively to all business relationships with our customers. These are available at [<https://www.clouth.com/de/mediathek/allgemeine-geschaeftsbedingungen>] or can be sent on request. Deviating general terms and conditions of the buyer shall not become part of the contract unless we have expressly agreed to their validity in writing.

## 2 Safety

### 2.1 Proper use

The proper use of doctor blade holders is to guide doctor blades. Any other use is prohibited.

### 2.2 General Cause of Risks



#### **DANGER!**

- Risk of crushing due to moving parts
- Risk of injury from sharp doctor blades

### 2.3 Responsibility of the operator

The operator is responsible for:

- Compliance with all applicable safety regulations and regular maintenance of the doctor holder.
- Performing a risk assessment to identify hazards in the workplace.
- The definition and implementation of necessary protective measures, including safety labeling.
- Ensuring the safety and health of employees when using work equipment.
- Provide operating instructions for the operating personnel.
- Within the European Union, observe EU Directive 89/391/EEC on “Improving the safety and health protection of workers at work” as well as national regulations (for example, in Germany the Ordinance on Industrial Safety and Health (BetrSichV)).

### 2.4 Employee qualification

The operator must ensure that only appropriately qualified and authorized personnel work on this machine. He is responsible for ensuring that the operating and maintenance personnel have the necessary qualifications. The personnel must be at least 15 years old. All persons working with or on the machine must have read and understood these operating instructions. The operator must document in writing that the operating and maintenance personnel have read and understood these instructions, as well as the regular training courses.

#### 2.4.1 Operating staff

Before starting work, the operating personnel must be adequately trained in the type and scope of the respective activity and possible hazards. Training must be carried out regularly (at least once a year). Training must be carried out after every technical change.

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### 2.4.2 Maintenance staff

The staff for maintenance and repair must be qualified and

- be sufficiently trained for the respective activities
- know and follow the relevant technical rules and safety regulations

Qualified staff are those who, based on their technical training and experience as well as knowledge of relevant provisions, applicable standards and safety regulations, can carry out the required activities and recognize and avoid possible dangers.

### 2.5 Safety marking

Safety signs may be attached to the machine to indicate danger zones or the use of personal protective equipment. Missing safety signs and safety signs that are no longer legible must be replaced immediately by the operator.

### 2.6 Personal protective equipment

When working with the doctor holder, always wear the personal protective equipment provided by the operator.



#### **Wear safety glasses!**

Risk of eye injuries and loss of vision due to flying dirt particles.  
Protect your eyes by wearing safety glasses.



#### **Use foot protection!**

Risk of slipping on slippery surfaces, injuries from sharp doctor blades or falling parts!  
Protect your feet by wearing foot protection.



#### **Use hand protection!**

Danger from sharp and hot doctor blades.  
Protect your hands by wearing cut-resistant and heat-resistant hand protection.



#### **Wear protective clothes!**

Danger of being pulled in by moving machine parts or getting caught on machine parts. Danger from sharp doctor blades!  
Wear close-fitting and cut-resistant protective clothing.

### 2.7 Safety devices

The doctor holder does not have its own safety devices. These must be ensured by the operator.

### 2.8 Secure against restarting

**Before carrying out maintenance and cleaning work on the doctor holder, the area must be disconnected from the power supply and compressed air and secured against being switched on again.**

### 2.9 Behavior in the event of danger

In the event of danger, the system must be switched off immediately and the emergency number dialed.

## 3 Environmental protection

When disposing of the doctor holder, the applicable national environmental regulations in the country of use must be observed.

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### 4 Technical data

#### 4.1 Presentation of the technical data

PRODUCT DESCRIPTION	CLOUTHFLEX-18/35 AS
TYPE	Rigid Holder
MATERIAL	stainless steel, fingers optionally made of stainless steel or GRP (glass-reinforced plastic)
LENGTH	max. 14.000 mm
DOCTOR BLADE WIDTH	89 mm
FOR DOCTOR BLADE THICKNESS	from 0,6 mm – 6,0 mm (standard)
MOUNTING SURFACE	38 mm
WEIGHT	Weight per Meter 5,1 kg

#### 4.2 Detailed Technical Specifications

- Product Name: CLOUTHFLEX-18/35 AS
- Specific Properties and Areas of Application:  
 The doctor holder CLOUTHFLEX-18/35 AS is designed as a two-part assembly. The upper and lower parts are permanently joined by riveting.  
 The integrated micro-adjustment screws allow precise fine-tuning of the doctor holder, ensuring uniform and defined contact of the doctor blade with the surface to be processed.  
 The doctor holder is intended for applications where exact adjustment of the doctor blade is required to achieve consistent processing. The segmented lower part ensures effective cleaning of the blade guide.

#### 4.3 Alternative Variants

- **Doctor blade holders in various lengths:** The dimensions of our doctor blade holders (width x height) are constant, while the length varies depending on the roll length.

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### 5 Construction and function

#### 5.1 Short description

The CLOUTHFLEX-18/35 AS is used for precise mounting and accurate positioning of doctor blades, ensuring smooth and uniform paper transfer as well as effective cleaning of roll surfaces. The CLOUTHFLEX-18/35 AS is equipped with micro-adjustment screws, allowing precise adaptation to the beam mountings. The design of the segmented lower part minimizes the accumulation of debris. Nevertheless, it is extremely important to clean the doctor holder regularly and carefully clean the fingers to ensure optimal performance.

#### 5.2 Overview

CLOUTHFLEX 18/35 AS doctor holder



Figure 1

Doctor holder with doctor blade

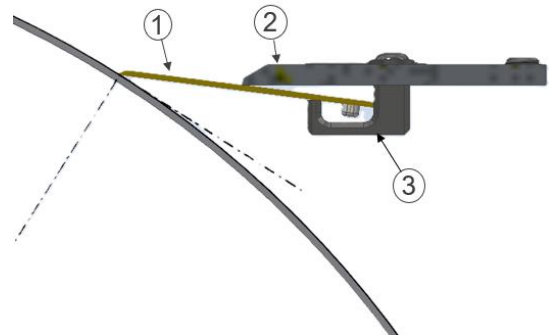


Figure 2

1. Doctor blade
2. Top plate
3. Doctor blade clamp finger

#### 5.3 Scope of delivery

- doctor holder
- operating Manual

#### 5.4 Process and functional description

This doctor holder is designed as a two-part assembly. It is suitable for a wide range of blade materials with a thickness of 0.6 to 6 mm. The doctor holder can be adjusted via the micro-adjustment screws. It is recommended to perform the adjustment with the doctor holder installed, working from the center outward.

#### 5.5 Description of the assemblies

The doctor holder consists of a segmented top plate and doctor blade holding fingers. The upper and lower parts are fastened together with screws.



Figure 3

## Doctor Holder

### 5.6 Displays and Controls

The operator has the option to order a control cabinet or a control panel. The operator is responsible for connecting it to the complete machine.

#### Explanation:

- **Optional Purchase:** The operator can, if required, order a control cabinet or a control panel for the operation of the doctor blade.
- **Operator Responsibility for Connection:** The connection of the control cabinet or control panel to the complete machine is the responsibility of the operator.
- **Integration into the Control System:** The operator must ensure that the control cabinet or control panel is properly integrated into the overall machine's control system.
- **Safety:** The operator is responsible for complying with all applicable safety regulations during the connection and operation of the control cabinet or control panel.



#### Note:

The control cabinet or control panel must comply with applicable standards and safety regulations.

## 6 Operating Mode

Since the doctor blade holder is integrated into the complete machine, the decision regarding the power supply is the responsibility of the operator.

## 7 Accessories, Tools and Aids

**Tools for pulling the doctor blades:**

CLOUTH DOCTOR-PULL

**Tools for adjusting the doctor blade system:**

CLOUTH-ADJUSTMENT GAUGE

CLOUTH DOCTOR-GAUGE

**Tools for cleaning:**

CLOUTH DOCTOR-CLEAN II

## 8 Transport



#### Note:

During internal transport of the doctor blade holder to the machine, the following safety precautions must be observed to prevent product damage and personal injury:

- **Suitable Transport Equipment:**  
Use appropriate transport equipment such as pallet trucks, forklifts, or transport trolleys designed for the weight and dimensions of the doctor blade holder. Ensure that the transport equipment is in proper condition and is regularly maintained.
- **Safe Handling:**  
Handle the doctor blade holder carefully and use suitable lifting aids if necessary. Be aware of the weight of the holder and avoid sudden movements. Wear appropriate personal protective equipment, such as safety gloves and safety shoes.

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- **Transport Securing:**  
Secure the doctor blade holder on the transport equipment to prevent slipping or tipping during transport. Use appropriate fastening devices and pay attention to the center of gravity.
- **Transport Routes:**  
Select suitable transport routes that are free of obstacles and uneven surfaces. Ensure adequate lighting and proper marking of transport paths.
- **Internal Traffic Rules:**  
Observe internal traffic regulations and speed limits. Watch out for pedestrians and other vehicles.
- **Caution in Tight Spaces:**  
Exercise particular care when moving the doctor blade holder through narrow areas or doorways. Use a guide person if necessary.
- **Protection Against Damage:**  
Protect the doctor blade holder from impacts, vibrations, and other external influences during transport. Ensure that no other objects can fall onto the holder.
- **Packaging:**  
Keep the doctor blade holder in its original packaging until installation whenever possible.



### Note:

In case of questions or uncertainties regarding transport, contact the manufacturer.

### 8.1 Transport Inspection

Before transport, the doctor blade holder must be checked for any damage.

### 8.2 Symbols on the Packaging

The transport crate is marked with the company logo.

### 8.3 Packaging

Transport crate made of wood.

### 8.4 Transport Dimensions

Transport dimensions and weight: vary according to customer-specific requirements.

### 8.5 Storage

Store the doctor blade holder in a dry, clean, and level area.

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### 9 Installation and Initial Start-Up



#### Note:

Installation and initial start-up may only be performed by qualified and authorized personnel.

#### 9.1 Requirements for the Installation Site

- Level and stable floor
- Sufficient space for operation and maintenance
- Protection against extreme temperatures and humidity

#### 9.2 Preparations

- Verify the scope of delivery
- Clean the installation area

#### 9.3 Installation

- Position the doctor blade holder
- Fasten the doctor blade holder

#### 9.4 Connection

- Connect the power supply (performed by the operator)

#### 9.5 Initial Start-Up

- Perform a functional check
- Insert the doctor blade
- Make adjustments (angle settings according to customer specifications)

#### 9.6 Operation and Use

The operator is solely responsible for determining how the doctor blade holder is operated and when it is put into service.

#### Explanation:

- **Operator Responsibility:** As the doctor blade holder is an auxiliary device integrated into a complete system, the responsibility for operation and start-up lies with the operator.
- **Integration into the Control System:** The operator must ensure that the doctor blade holder is properly integrated into the overall machine's control system.
- **Personnel Training:** The operator is responsible for adequately training the operating personnel and providing instructions on the safe use of the doctor blade holder. See Chapter 2.4.
- **Compliance with Regulations:** The operator must ensure that the operation and start-up of the doctor blade holder comply with applicable standards and safety regulations. See Chapter 2.3.



#### Note:

The manufacturer of the doctor blade holder assumes no responsibility for the operation or start-up of the product by the operator after acceptance.

## Doctor Holder

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### 9.7 Safety

Observe the safety instructions provided in this manual.

### 9.8 Activities Before Use

- Visual inspection of the doctor blade holder
- Functional check of the doctor blade holder and the safety devices

### 9.9 Switching On and Off

The operator is solely responsible for deciding when to switch the doctor blade holder on or off.

#### Explanation:

- **Operator Responsibility:**  
As the doctor blade holder is integrated into a complete system, the decision to switch it on or off lies with the operator.
- **Integration into the Control System:**  
The operator must ensure that the doctor blade holder is properly integrated into the overall machine's control system to allow safe switching on and off.
- **Personnel Training:**  
The operator is responsible for adequately training the operating personnel and providing instructions on safe switching procedures. See Chapter 2.4.
- **Compliance with Regulations:**  
The operator must ensure that switching the doctor blade holder on and off complies with applicable safety regulations and standards. See Chapter 2.3.



#### Note:

The manufacturer of the doctor blade holder assumes no responsibility for the switching on or off of the product by the operator after acceptance.

### 9.10 Normal Operation

The performance of normal operation of the doctor blade holder is the sole responsibility of the operator. It must be ensured that the doctor blade holder is used exclusively for its intended purpose.



#### Note:

The manufacturer of the doctor blade holder assumes no responsibility for damage or injury resulting from improper use or failure to follow the operating manual.

## Doctor Holder

### 9.10.1 Special Actions

- Cleaning of the doctor blade holder and replacement of the doctor blades may only be carried out on a machine that is switched off and at a standstill.



#### **WARNING!**

##### **Risk of Injury from Moving Parts**

- Cleaning and doctor blade replacement may only be performed when the machine is at a complete standstill to prevent injuries from moving parts.
- Before starting any work, the machine must be disconnected from the power supply and secured against accidental restart.
- **Cleaning**
  - The doctor blade holder and the doctor blades must be cleaned regularly to remove deposits and contaminants.
  - Use appropriate cleaning agents and tools for cleaning.
  - Follow the manufacturer's instructions regarding cleaning agents and procedures.
- **Blade Replacement**
  - When replacing blades, ensure that the new doctor blades are installed and secured correctly.
  - Use only doctor blades recommended by the manufacturer.
  - Dispose of worn blades properly.
- **Documentation**
  - Maintain a maintenance log documenting all cleaning and maintenance activities performed



#### **Note:**

The manufacturer of the doctor blade holder assumes no responsibility for damage or injury resulting from improper cleaning or blade replacement.

### 9.10.2 Activities After Use

- Clean the doctor blade holder.
- Perform a visual inspection for damage, wear, or leaks.

### 9.10.3 Cleaning

Cleanliness is a fundamental requirement for proper maintenance of the doctor blade holder and the doctor blade. Deposits and/or contaminants between the doctor blade and the top plate can lead to an uneven blade angle. In addition, deposits may cause difficulties during blade replacement



#### **WARNING!**

##### **Risk of Injury from Moving Parts!**

- Ensure that the machine is disconnected from the power supply and secured against accidental restart before cleaning.



#### **CAUTION!**

##### **Hazard from Liquids and Flying Debris!**

- Wear appropriate personal protective equipment during cleaning, such as safety glasses and protective gloves.
- Do not direct the water jet onto electrical components or connections.

## Doctor Holder

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### Explanation:

- **Effective Cleaning:**
  - The doctor blade holder must be cleaned regularly and thoroughly using compressed air or water. This ensures that deposits, dirt, and production residues are completely removed.
- **Drying:**
  - Thoroughly dry the doctor blade holder after cleaning to prevent corrosion.
- **Documentation:**
  - Regular cleaning of the doctor blade holder must be included in the maintenance schedule.

## 10 Maintenance

Maintenance may only be carried out by qualified and authorized personnel. See chapter 0.



### **WARNING!**

#### **Risk of injury from moving components!**

- Before starting maintenance work, the machine must be disconnected from the power supply and secured against unintentional restart.
- Wear appropriate protective equipment during maintenance work, such as safety goggles and protective gloves.

### Explanation:

- **Manufacturer Recommendations:**
  - Manufacturer recommendations serve as guidelines for maintenance intervals.
  - Depending on operating conditions, more frequent maintenance may be required.
- **Maintenance Schedule:**
  - The maintenance schedule includes all relevant maintenance tasks, intervals, and responsibilities.
  - Completed maintenance work is documented by the operator.



### **Note:**

- The manufacturer of the doctor holder assumes no liability for damages caused by improper maintenance or failure to follow the manufacturer's recommendations.

## Doctor Holder

### 10.1 Maintenance Schedule

The maintenance of the doctor holder must be included by the operator in the maintenance schedule. Perform these tasks on the doctor holder at regular intervals. This ensures the functionality of the doctor holder and extends its service life. Operating with damaged or non-original parts compromises operational safety. There is a risk of injury and potential property damage.

#### Explanation:

- **Operator's responsibility:**
  - The operator is responsible for integrating the doctor holder into their existing maintenance schedule.
  - This ensures smooth operation and the longevity of the product.
- **Maintenance Schedule:**
  - A comprehensive maintenance schedule must include all relevant maintenance tasks, intervals, and responsibilities.
  - Documentation of performed maintenance activities is of great importance.
- **Manufacturer Recommendations:**
  - The manufacturer's maintenance recommendations must be strictly followed.
  - Nichteinhaltung kann zum Verlust der Gewährleistungsansprüche führen.
- **Warranty Loss:**
  - Failure to adhere to the manufacturer's maintenance recommendations may void the warranty for the doctor holder.
  - This means the manufacturer will not be liable for damages caused by inadequate maintenance.



#### Note:

- The manufacturer's maintenance recommendations must be followed, and all performed work must be documented.
- If there are any questions regarding the maintenance of the doctor holder, the operator may contact the manufacturer.

### 10.2 Maintenance Tasks

To ensure smooth operation, we recommend performing a visual inspection for leaks, contamination, and damage at the start of each shift (but at least once daily). The operating personnel are responsible for this. Maintenance of the doctor holder is carried out according to the manufacturer's maintenance schedule. The manufacturer recommends the following maintenance intervals:

- **Regular Visual Inspection:**
  - Check the doctor blade holder for damage, wear, or leaks.
  - Pay special attention to connections, and the doctor blade holder.
- **At Every Shutdown:**
  - Inspect the doctor blade holder for damage, wear, or leaks.
  - Clean the doctor blade guide by removing dirt, deposits, and production residues using a suitable high-pressure cleaner or water tube.
  - Regularly replace doctor blades according to manufacturer recommendations or when visible wear occurs.
- **Semi-Annually:**
  - Monitor the level of contamination; recommendation: regular cleaning of the systems to ensure smooth operation.
  - Inspect the doctor blade holder for damage, wear, or leaks.

## Doctor Holder

- **Cleaning:**
  - Regular removal of dirt, deposits, and production residues using a suitable high-pressure cleaner or water tube.
- **Doctor Blade Replacement:**
  - Regular replacement of doctor blades according to manufacturer recommendations or upon visible wear.
  - Use original spare doctor blades to ensure optimal performance and safety.
- **Function Check:**
  - Check the proper function of all components, including compressed air connections, blade holder, and any existing control elements.
  - Test contact pressure and doctor blade angle.
- **Lubrication:**
  - Lubricate moving parts according to manufacturer specifications to reduce wear.
- **Leak Test:**
  - Check the connections.
- **Manufacturer Recommendations:**
  - Depending on operating conditions, more frequent maintenance may be necessary.
- **Documentation:**
  - Maintain a maintenance log documenting all performed maintenance tasks, intervals, and materials used.



### WARNING!

#### Risk of injury from moving components!

- Before starting maintenance work, the machine must be disconnected from the power supply and secured against unintentional restart.
- Wear appropriate protective equipment during maintenance work, such as safety goggles and protective gloves.



#### Note:

- If there are any questions regarding the maintenance of the doctor blade holder, the operator may contact the manufacturer.

## 11 Possible Malfunctions and Measures

The doctoring process is indirectly influenced by: the pulp, surface temperature, temperature differences, and the condition of the screen and felt.

Error / Fault	Cause	Recommended Action
Non-functional doctor blades	<ul style="list-style-type: none"> <li>• Doctor blade used beyond the wear edge</li> </ul>	<ul style="list-style-type: none"> <li>• In the future, ensure that the doctor blades are not worn beyond the wear edge.</li> <li>• Never increase the pressure when using a worn doctor blade.</li> </ul>
Uneven wear of the doctor blade	<ul style="list-style-type: none"> <li>• Poor roller or cylinder surface</li> <li>• Dirty or damaged doctor blade holder</li> <li>• Deposits on the roller or cylinder surface</li> </ul>	<ul style="list-style-type: none"> <li>• Use a more flexible doctor blade</li> <li>• Clean, repair, or replace the doctor blade holder</li> <li>• Clean the roller or cylinder surface</li> <li>• Overhaul the roller or cylinder</li> </ul>

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Error / Fault	Cause	Recommended Action
	<ul style="list-style-type: none"> <li>Doctor blade bar, holder, or blade not properly adjusted</li> </ul>	<ul style="list-style-type: none"> <li>Check the adjustment of the doctor blade bar, holder, and blade; correct the adjustment if necessary</li> </ul>
Excessive wear in the middle or at the ends of the doctor blade	<ul style="list-style-type: none"> <li>The doctor blade holder was adjusted so that it does not match the roller or cylinder surface</li> </ul>	<ul style="list-style-type: none"> <li>Readjust or reposition the doctor blade holder in the bar</li> <li>If the misalignment is too large, send the bar for refurbishment</li> <li>Replace the old, bent doctor blade holder bar</li> </ul>
Excessive wear on one side	<ul style="list-style-type: none"> <li>The doctor blade holder is not set parallel to the roller/cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Adjust the bearings and brackets parallel to the roller/cylinder axis</li> </ul>
Even wear but rough doctor blade tip	<ul style="list-style-type: none"> <li>Deposits on the roller</li> <li>Excessive pressure on the doctor blade</li> <li>Doctor blade material is too hard</li> </ul>	<ul style="list-style-type: none"> <li>Clean the roller / cylinder</li> <li>Reduce the doctor blade pressure</li> </ul> <p>Use softer doctor blades more frequently</p>
Excessive wear in the web area	<ul style="list-style-type: none"> <li>Fine and filler particles from the paper web embedded in the roller/cylinder surface</li> </ul>	<ul style="list-style-type: none"> <li>Clean the roller / cylinder</li> <li>Bevel the doctor blades</li> <li>Use doctor blades with slotted ends to prevent excessive pressure buildup at the roller/cylinder edges</li> </ul>
Excessive wear at the ends of the doctor blades	<ul style="list-style-type: none"> <li>The paper web lubricates the roller/cylinder</li> </ul>	<ul style="list-style-type: none"> <li>Slot the doctor blade ends to relieve pressure.</li> </ul>
Partial chipping at the tip of the doctor blade	<p>The doctor blade is affected by:</p> <ul style="list-style-type: none"> <li>Electrostatic charge</li> <li>Electrolysis</li> <li>Heat</li> </ul>	<ul style="list-style-type: none"> <li>Isolate the doctor blade assembly from the machine frame</li> <li>Use plastic blades</li> </ul>
Bulging doctor blade tip or burr at the trailing edge	<ul style="list-style-type: none"> <li>Doctor blade material too soft</li> <li>Doctor blade pressure too high</li> <li>Doctor blade angle too shallow</li> </ul>	<ul style="list-style-type: none"> <li>Use harder doctor blades</li> <li>Reduce doctor blade pressure</li> <li>Check the doctor blade angle and readjust if necessary; if adjustment is not possible, use shorter doctor blades for a steeper blade angle</li> </ul>
Protruding doctor blade ends beyond the roller or cylinder surface	<p>Doctor blade extends beyond the roller edge</p> <ul style="list-style-type: none"> <li>Not centered</li> <li>Too long Incorrect oscillation</li> </ul>	<ul style="list-style-type: none"> <li>Center the doctor blade</li> <li>Adjust the doctor blade length</li> <li>Adjust the oscillation stroke</li> </ul>
Impact point at the trailing edge	<p>Doctor blade contacts deposits on the roller during the startup phase</p>	<p>Change the doctor blade and remove deposits from the cylinder</p>
Wavy wear at regular intervals	<p>Incorrect roller moistening</p>	<ul style="list-style-type: none"> <li>Close the moistening device</li> <li>Ensure even moistening using spray nozzles</li> </ul>

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Error / Fault	Cause	Recommended Action
Saber-shaped deformation of the doctor blade	Excessive heating of the doctor blade tip	Use doctor blades with expansion slots Use plastic blades
Doctor blade catches on the roller surface, rattles, or falls out of the doctor blade holder	Doctor blade not suitable for the respective doctor blade holder type	Adjust riveting and doctor blade length to fit the doctor blade holder
Doctor blade moves out of the holder due to oscillating movement	Doctor blade is not fixed in the doctor blade holder	Use a DOCTOR-CLIP to fix the doctor blade in the doctor blade holder
Doctor blade cannot be pulled out of or inserted into the holder	Doctor blade holder contaminated	Clean the doctor blade holder at regular intervals
Doctor blade bar cannot be engaged or disengaged	Beam is difficult to move  The pneumatic cylinders have excessive play in the rod eyes	Clean the doctor holder system and repair the manual actuation of the doctor holder beam  Pneumatik Zylinder erneuern
Vibrations in the doctor blade system	Bearing is worn out	Replace the bearings on both sides
Doctor blade holder without blade contacts the roller/cylinder	The doctor holder without a doctor blade is in contact with the roller / cylinder.	Realign the doctor system and adjust it so that the doctor holder, when the doctor blade is retracted, maintains a distance of approximately 3–5 mm from the roller or cylinder surface.
Doctor blade holder is prone to vibrations	Turnbuckles have excessive play	The doctor holder and beam must be secured. Replace the turnbuckles on both sides.
Fingers detach from the top plate	Worn rivets on the top-plate	Replace the rivets; if necessary, replace the entire top-plate.

## Doctor Holder

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### 12 Disassembly and Disposal

Disassembly of the doctor blade holder may only be performed by qualified and authorized personnel. Before starting disassembly work, the following steps must be carried out:



#### **WARNING!**

##### **Risk of injury from moving components!**

- Switch off the machine in which the doctor blade holder is integrated and secure it against unintentional restarting.
  - Ensure that no compressed air remains in the system.
  - Wear appropriate protective equipment, such as safety goggles and protective gloves.
- 
- **Prepare the doctor blade holder:**
    - Remove all doctor blades from the doctor blade holder.
  - **Perform disassembly:**
    - Loosen the fasteners securing the doctor blade holder to the machine.
    - Carefully remove the doctor blade holder from the machine.
  - **Disposal:**
    - Dispose of the doctor holder and all dismantled parts in accordance with the applicable environmental regulations.



#### **Note:**

- Care must be taken when disassembling the doctor holder to avoid damage.
- Make sure that no small parts get into the machine.
- If you have any questions or uncertainties regarding disassembly, please contact the manufacturer.

## Doctor Holder

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### Attachment

#### Quality documentation

Customer-specific data

#### Data sheets, drawing

Customer drawing

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