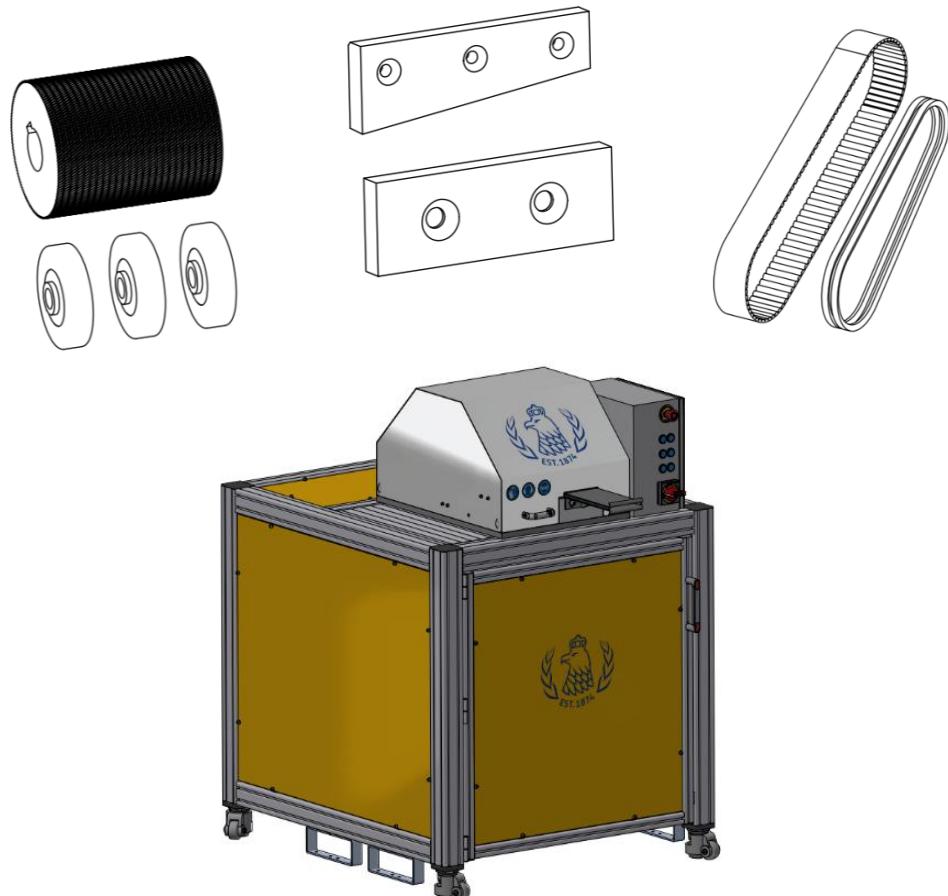


**Assembly Instructions**  
for Spare and Wear Parts

# Assembly Instructions

## for Spare and Wear Parts

Product name: CLOUTH DOCTOR CUT



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## Assembly Instructions for Spare and Wear Parts

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## Assembly Instructions for Spare and Wear Parts

### 1 General Information

#### 1.1 Information About These Instructions

These instructions describe the proper replacement of spare and wear parts of the CLOUTH DOCTOR CUT shredding machine.

They supplement the operating manual but do not replace it.

#### 1.2 Scope

Valid for all machine variants of the CLOUTH DOCTOR CUT type.

#### 1.3 Target Group

Qualified mechanical personnel with experience in handling shredding machines.

#### 1.4 Limitation of Liability

The manufacturer is not liable for any damage resulting from improper use or failure to follow these instructions.

#### 1.5 Explanation of symbols

The following symbols are used in this assembly manual.



#### DANGER!

##### Type and source of hazard!

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 hazard!

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 hazard!

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 CLOUTH DOCTOR CUT.

## Assembly Instructions for Spare and Wear Parts

## 2 Safety

### 2.1 General Safety Instructions

- Use only original or approved spare parts.
- Perform all work **only when the machine is switched off and de-energized**.
- After completing all work, **reinstall and check all protective and safety devices**.
- Modifications to the machine outside of its intended use will **void CE conformity**.



#### WARNING!

Modifications to the machine outside of its intended use will void CE conformity.

### 2.2 Personal protective equipment

When working with the machine, the personal protective equipment (PPE) provided by the operator must be worn at all times.



#### Use Hand Protection!

Hazards from sharp doctor blades.

Protect your hands by wearing cut-resistant gloves.



#### Wear Safety Glasses!

Risk of eye injury and loss of vision due to flying debris.

Protect your eyes by wearing safety glasses.



#### Wear Hearing Protection!

Hearing damage may occur without hearing protection!

Wear hearing protection when near the machine or loud noise sources, such as during maintenance work.



#### Use Foot Protection!

Risks of slipping on slippery surfaces, injuries from sharp doctor blades, or falling objects!

Protect your feet by wearing safety shoes.

## Assembly Instructions for Spare and Wear Parts

### 3 Preparation for Work

- Wear the required personal protective equipment (PPE).
- Ensure the work area is free of obstacles and adequately illuminated.
- Comply with all applicable safety regulations and operating instructions.
- Inspect the machine and its components for visible damage.
- Prepare all required spare and wear parts according to the parts list.
- Use only parts suitable for this machine model.
- Ensure that all tools are in proper working condition.



#### WARNING!

##### Risk of Injury from Moving Parts

Perform work only when the machine is completely stopped.  
Secure the machine against accidental restart (unplug the power cord).

#### 3.1 Unlocking the Safety Devices

The machine is equipped with safety devices.

The black switch labeled **“DOOR RELEASE”** can only be unlocked when the machine is powered on.

**Black switch „DOOR RELEASE“**



#### 3.2 Securing Against Accidental Restart

Before performing any assembly work, disconnect the machine from the power supply and secure it against accidental restart.

Unplug the power cord, even if the emergency stop (E-Stop) has been activated.



#### WARNING!

##### Risk of Electric Shock!

Work may only begin when the machine is completely de-energized.

#### 3.3 General Procedure Before Any Work

- Unlock the safety devices (see chapter 3.1)
- Disconnect the power supply (unplug the power cord)
- Ensure that no electrical energy is present

## Assembly Instructions

### for Spare and Wear Parts

#### 3.4 Required Tools and Equipment

Work Area	Required Tools / Equipment	Notes
General Disassembly / Assembly	Allen wrench set, Hexagon wrench set, Snap ring pliers (for internal pliers)	According to the screw sizes of the assemblies
Replacement of Rubber Roller / Feed Roller (Item No. 1105471)	Allen wrench set, Hexagon wrench set, Snap ring pliers	For loosening and securing the roller unit, pedestal bearings, and snap rings e
Replacement of Upper / Lower Blade Set (Item No. 1105472)	Allen wrench set, Hexagon wrench set, Torque see chapter°3.5	For precise adjustment of the knife clearance after replacement
Replacement of Drive Belt Set (Item No. 1105473)	Allen wrench set, Hexagon wrench set Torque see chapter°3.5	For disassembling the cover, tensioning, and aligning the drive belts



#### Note on Screw Usage:

Keep removed screws and fasteners clean, organized, and protected. Only reuse screws that are clean and undamaged.

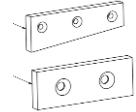
#### 3.5 Torque Tablet in (Nm)

	Tightening Torque / Torque Table for Standard Threads (in Nm)					
Festigkeitsklasse Gewindegröße	4.6	5.6	6.8	8.8	10.9	12.9
<b>M2</b>	0,13	0,16	0,26	0,35	0,49	0,59
<b>M3</b>	0,48	0,6	0,96	1,28	1,8	2,16
<b>M4</b>	1,12	1,39	2,23	2,97	4,18	5,02
<b>M5</b>	2,26	2,83	4,52	6,03	8,48	10,18
<b>M6</b>	3,84	4,8	7,69	10,25	14,41	17,29
<b>M7</b>	5,13	6,42	10,27	13,7	19,25	23,1
<b>M8</b>	9,35	11,69	18,70	24,93	35,06	42,07
<b>M10</b>	18	23	37	49	70	83
<b>M12</b>	32	40	65	86	121	146
<b>M14</b>	52	65	104	138	194	233
<b>M16</b>	81	101	161	215	302	363
<b>M18</b>	112	139	222	296	417	500
<b>M20</b>	157	197	315	420	590	709
<b>M22</b>	215	269	430	574	807	968
<b>M24</b>	272	340	544	726	1020	1224
<b>M27</b>	400	500	800	1067	1500	1800
<b>M30</b>	542	677	1083	1445	2032	2438

## Assembly Instructions for Spare and Wear Parts

### 3.6 Spare and Wear Parts

Spare and wear parts can be obtained directly from the manufacturer. [+49 2192 853-0](tel:+492192853-0) / [info@clouth-group.com](mailto:info@clouth-group.com)

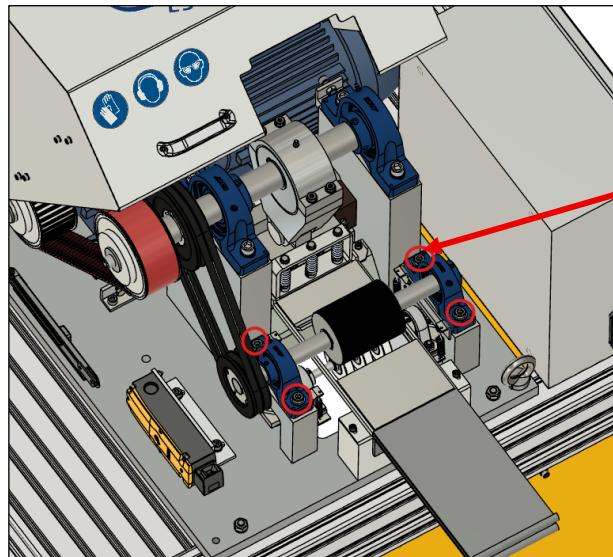
Component designation	Item-No.	
Rubber Roller / Feed Roller	1105471	
Blade set (upper + lower)	1105472	
Drive belt set	1105473	

## 4 Assembly of Spare and Wear Parts

### 4.1 Rubber Roller / Feed Roller

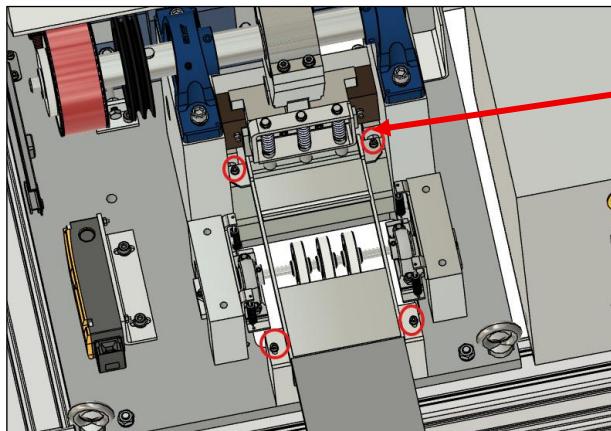
Item-No. 1105471

See chapter 3.3 for the general procedure.

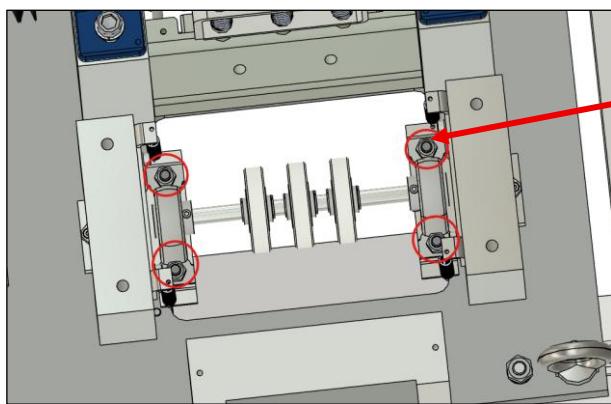


- Loosen the four fastening screws of the roller unit.
- Loosen the drive belt.
- Remove the roller unit.

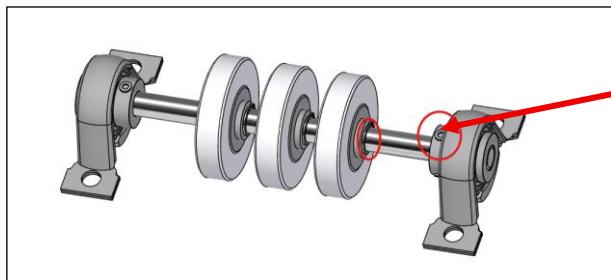
## Assembly Instructions for Spare and Wear Parts



- Loosen the four fastening screws of the infeed rail.
- Remove the infeed rail



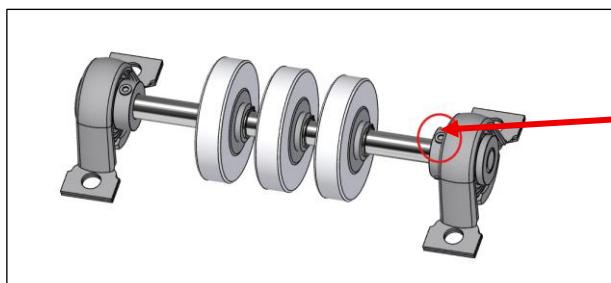
- Loosen these four screws.
- Remove the roller unit.



- Loosen the screw.
- Remove the support bearing.

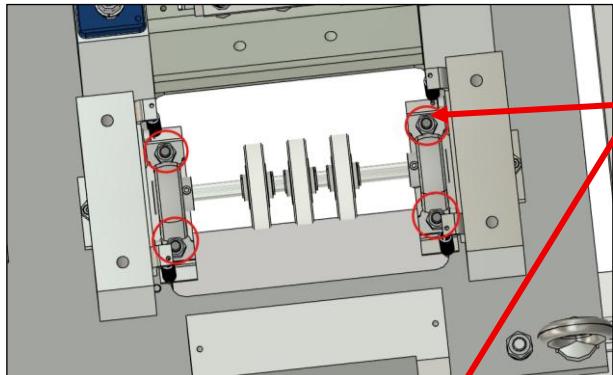


- Remove all retaining rings and rubber rollers.

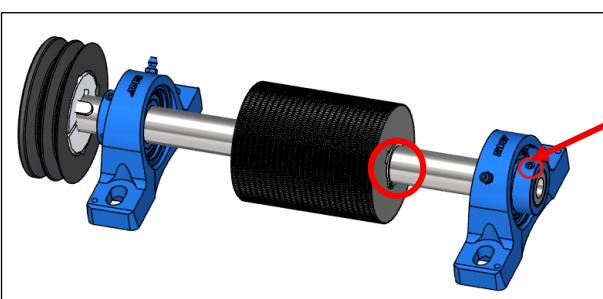
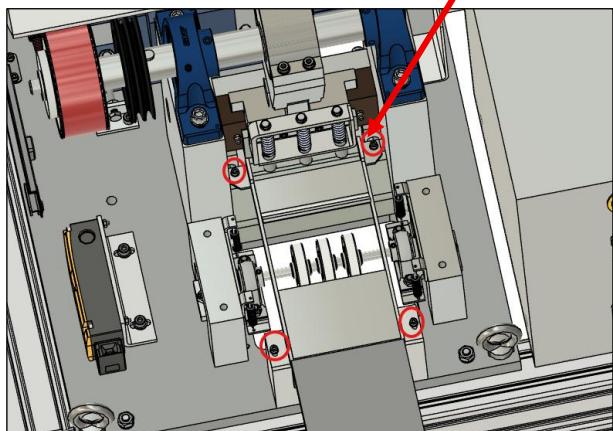


- Install the new roller and correctly fit the retaining rings.
- Tighten the screw.

## Assembly Instructions for Spare and Wear Parts



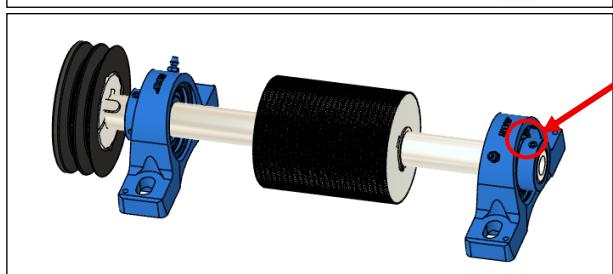
- Then reinstall the roller unit and infeed rail with the specified torque (see chapter 3.5).



- Loosen the screw to remove the support bearing.
- Then remove the retaining ring and the feed rollers.

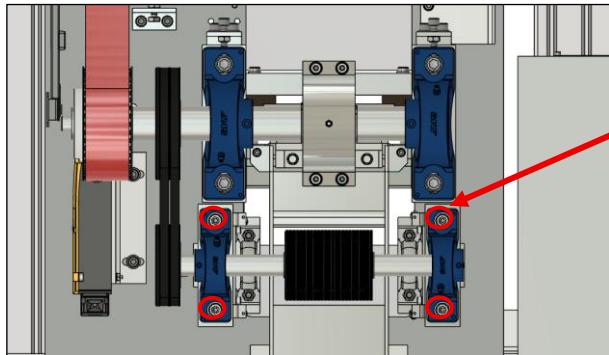


- Replace the feed roller with a new one and
- Install the retaining ring.  
Ensure that the retaining ring is properly mounted to guarantee a secure and functional connection.



- Tighten the screw.

## Assembly Instructions for Spare and Wear Parts

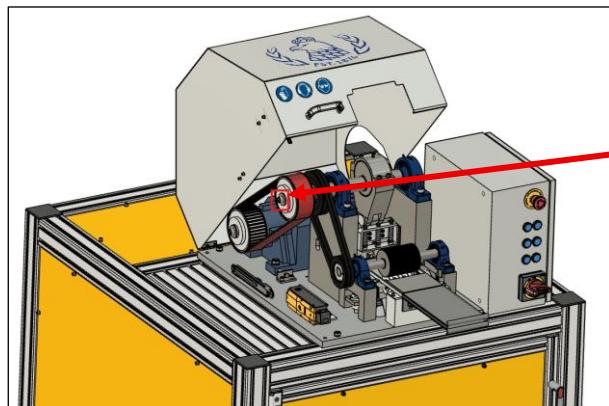
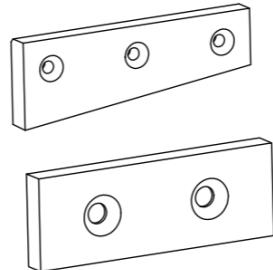


- Then install the roller unit and infeed rail with the specified torque (see chapter 3.5), ensuring proper central alignment.

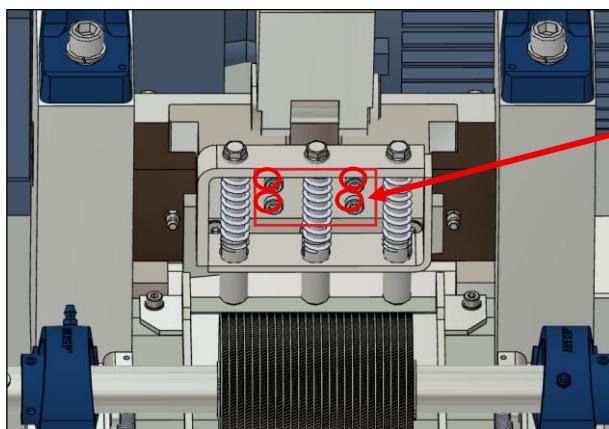
### 4.2 Blade set (upper + lower)

Item No. 1105472

See chapter 3.3 for the general procedure.

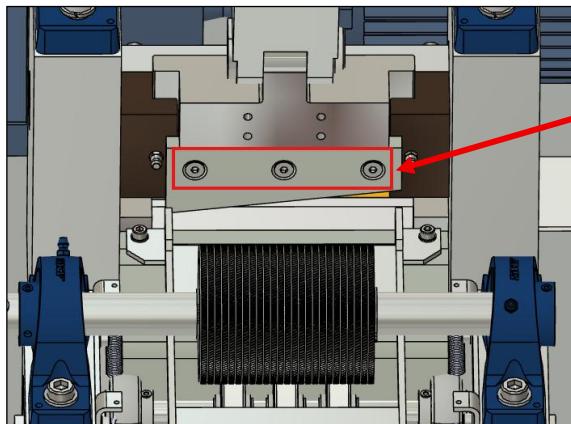


- Turn the screw clockwise until the upper blade reaches its **highest** point.



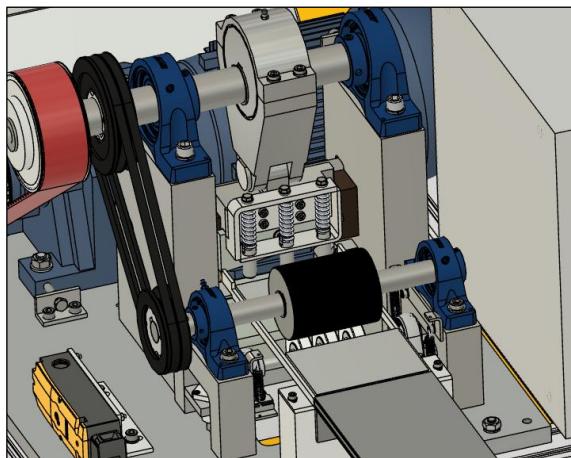
- Loosen the four screws of the pressure plate and remove the plate.

## Assembly Instructions for Spare and Wear Parts



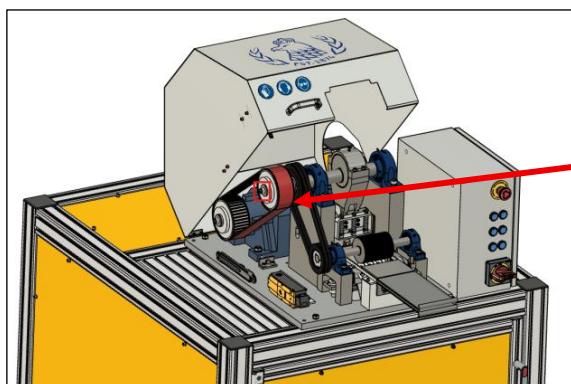
### Upper blade

- Loosen the three screws to remove the upper blade and replace it with a new one.



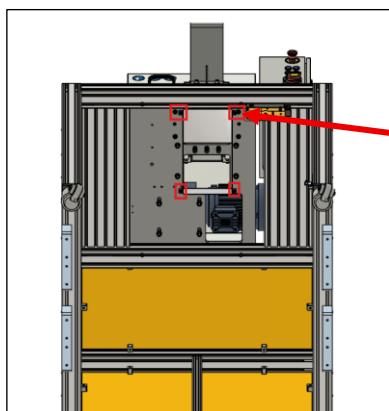
If the blade clearance deviates from 0.10 - 0.15 mm, it must be readjusted according to chapter 4.2.1.

- Then reinstall the upper blade and pressure plate.



### Lower blade

- Turn the screw clockwise until the upper blade reaches its **highest** point.

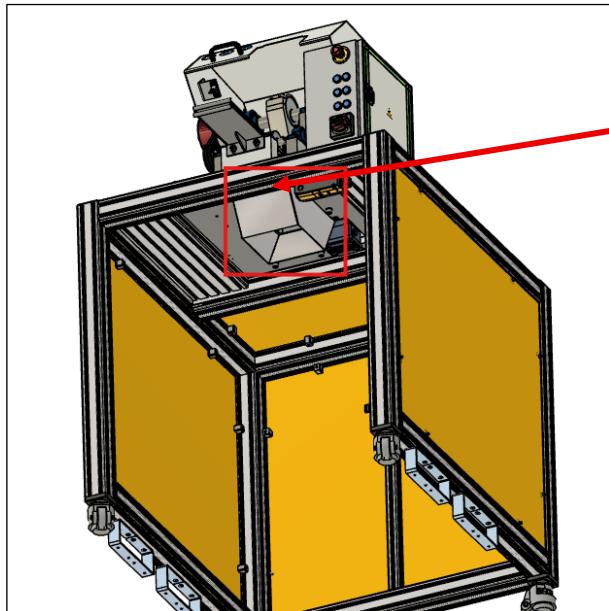


### Lower blade

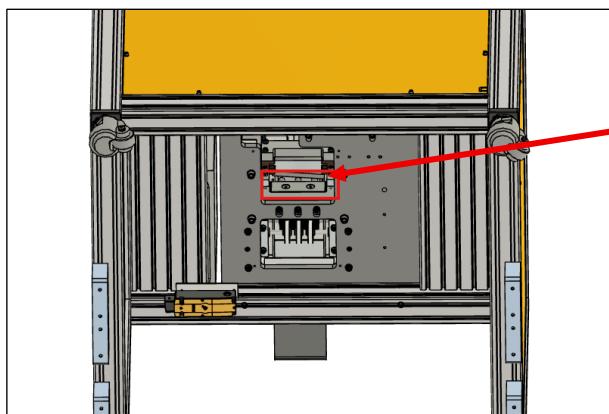
*Bottom view*

- Open the door.
- Loosen the four screws on the underside.

## Assembly Instructions for Spare and Wear Parts



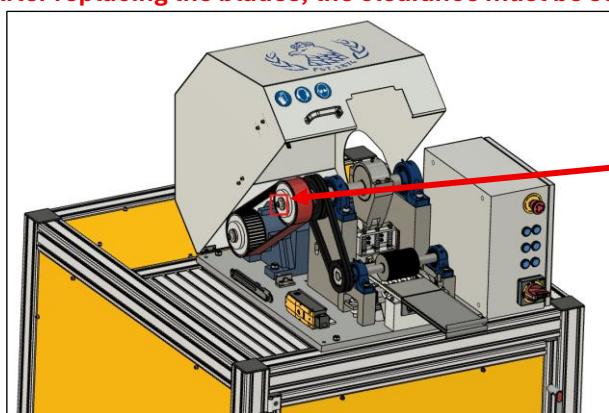
- Remove the hopper.



- Loosen the two screws.
- Remove the lower blade and replace it with a new one.
- If the knife clearance is correctly set to 0.10–0.15 mm, the hopper can be reinstalled.

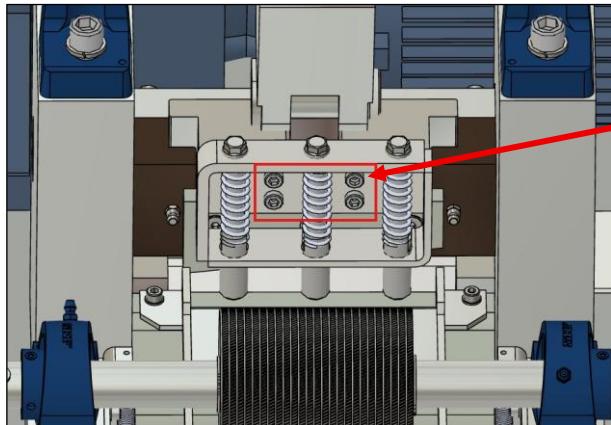
### 4.2.1 Adjusting the Blade Clearance

After replacing the blades, the clearance must be set to approximately 0.1–0.15 mm.

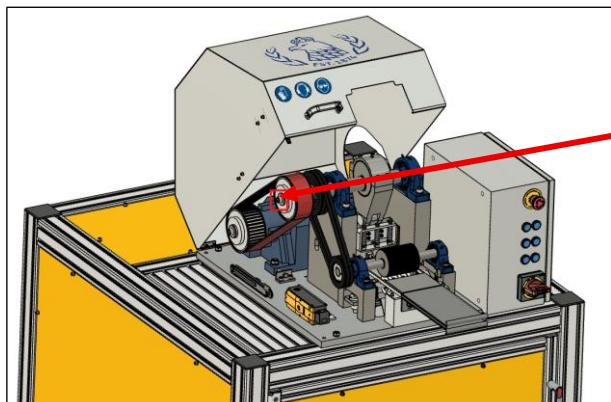


- Turn the screw clockwise until the upper blade reaches its **highest** point.

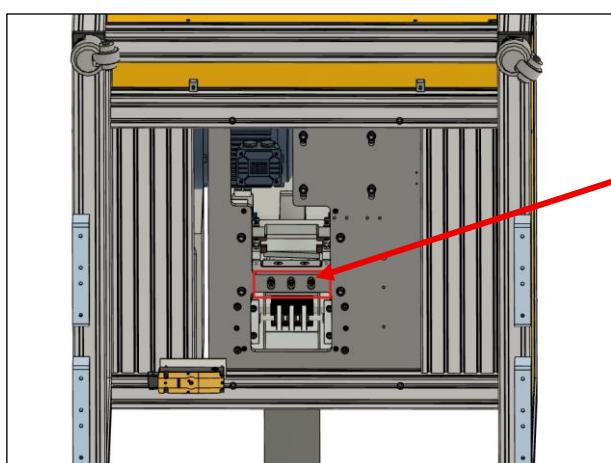
## Assembly Instructions for Spare and Wear Parts



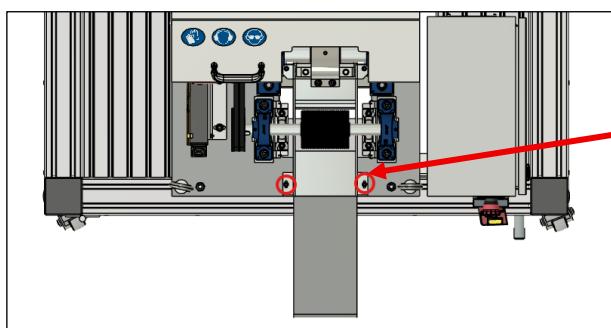
- Loosen the four screws of the pressure plate and remove the plate.



- Now turn the screw clockwise until the upper blade reaches its **lowest** point.

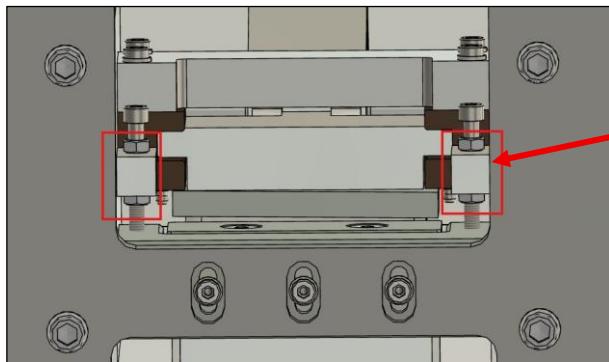


- Loosen the three screws of the blade holder.

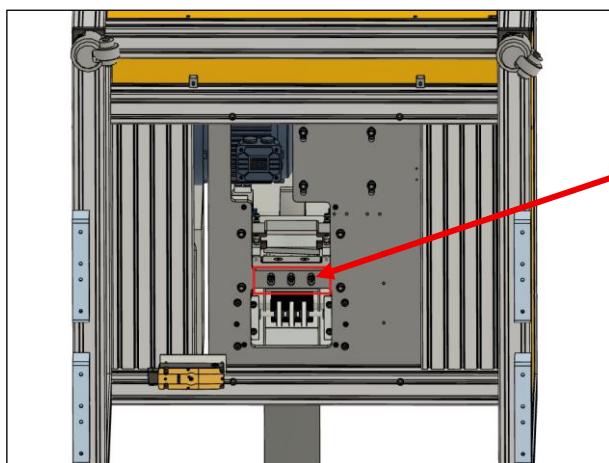


- Loosen the two screws of the infeed rail from above.

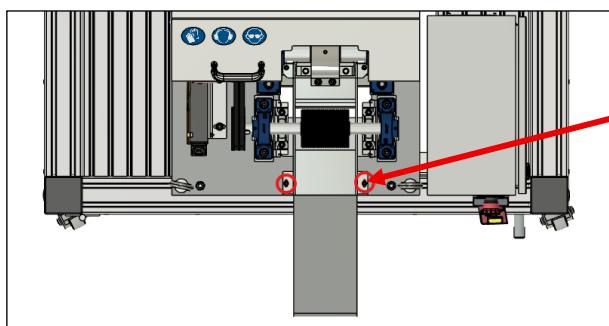
## Assembly Instructions for Spare and Wear Parts



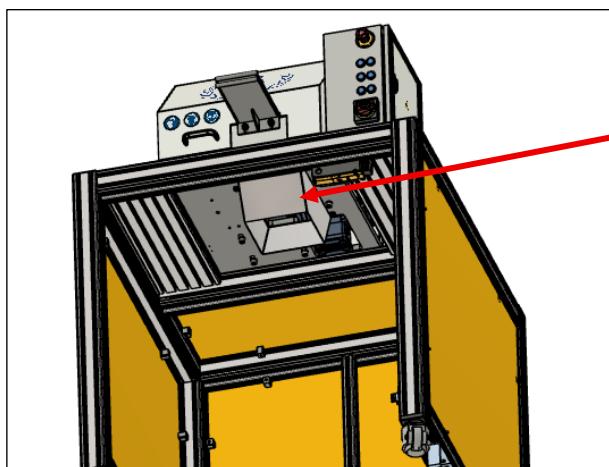
- Adjust the blade holder using the nut until the clearance is correct.  
Set the clearance to approximately 0.1–0.15 mm.



- Retighten the three screws.

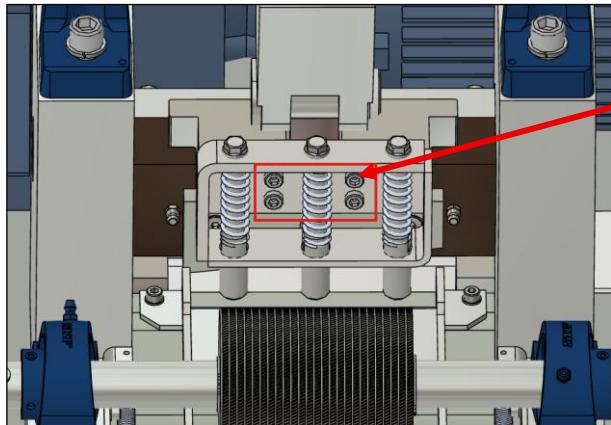


- Retighten the two screws of the infeed rail from above.  
• Torque specification: see chapter 3.5.



- Reinstall the hopper.

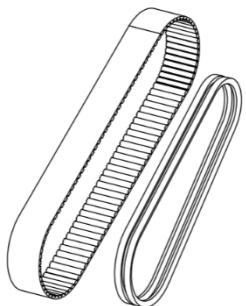
## Assembly Instructions for Spare and Wear Parts



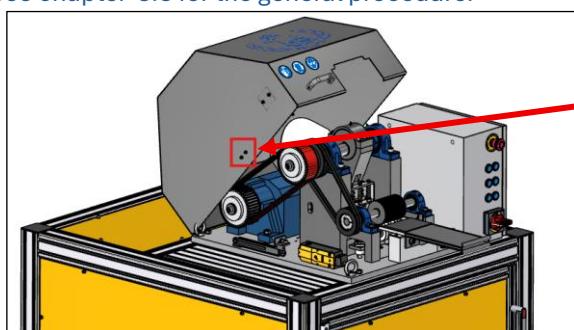
- Return the upper blade to the upper position and install the pressure plate.

### 4.3 Drive belt set

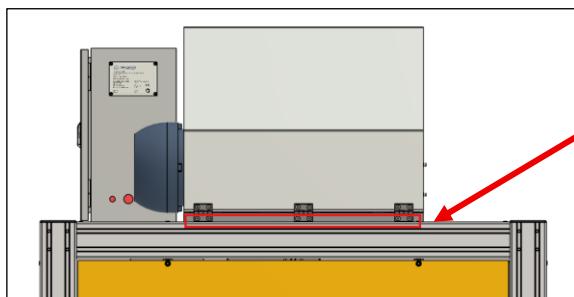
Item No. 1105473



See chapter 3.3 for the general procedure.

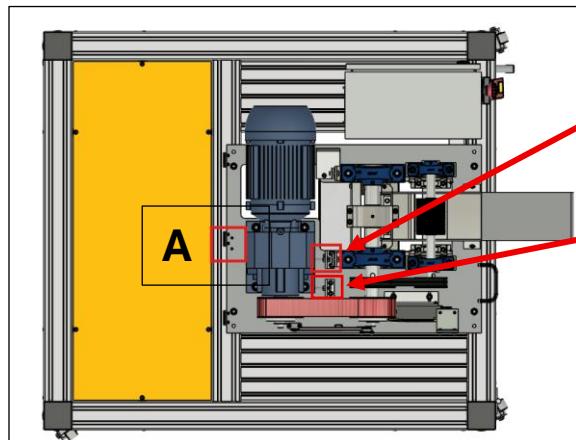


- Loosen the two screws to remove the clamp lock.

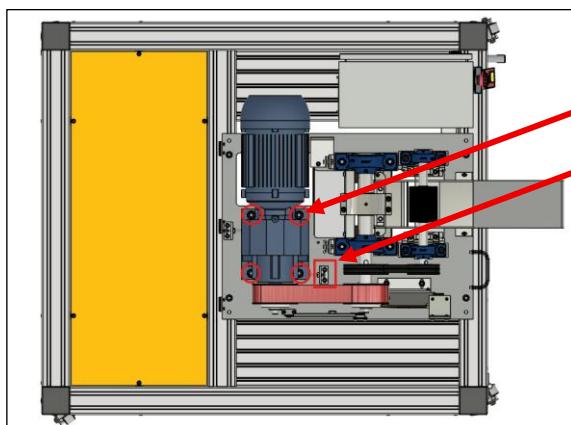


- Loosen the six screws to remove the hood.

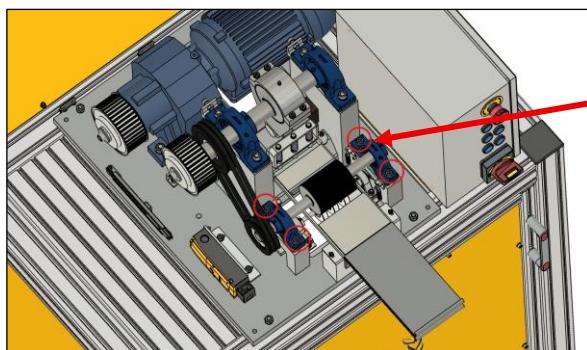
## Assembly Instructions for Spare and Wear Parts



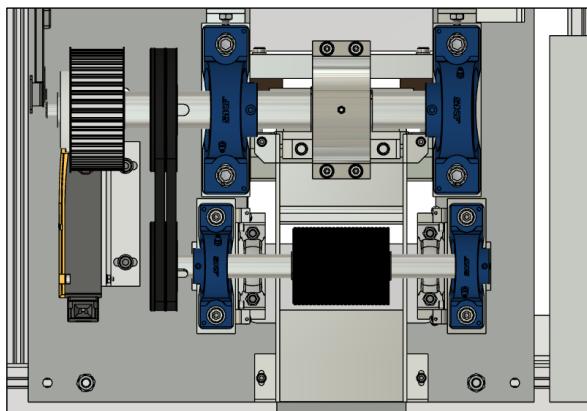
- Loosen adjustment unit 2 and remount it in position A.
- Adjustment unit 1



- Loosen four screws
- Loosen adjustment nut 1 until the timing belt relaxes, so it can be removed.

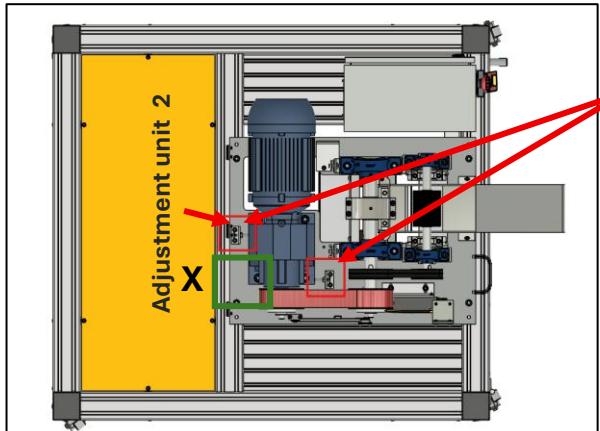


- Loosen the four screws to slacken the V-belt and replace it with a new one.

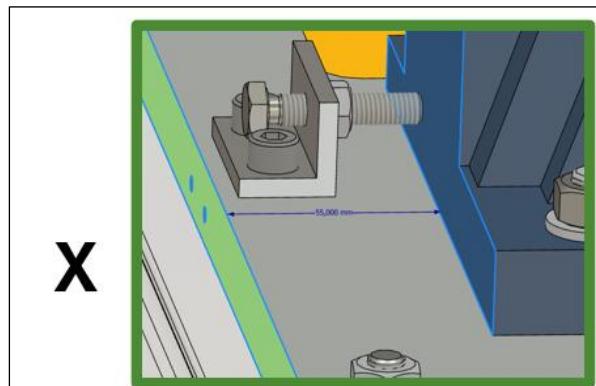


- Reassemble both pillow block bearings and make sure they are properly aligned in the center.

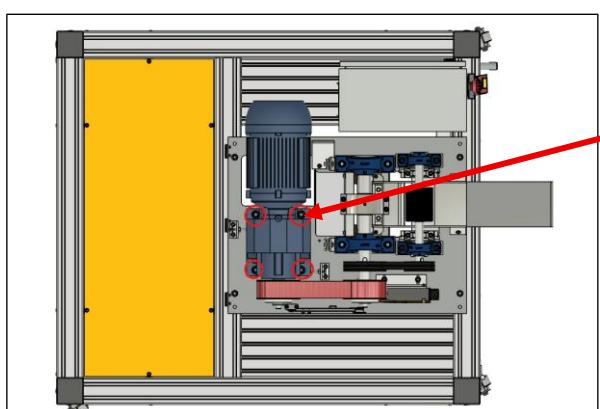
## Assembly Instructions for Spare and Wear Parts



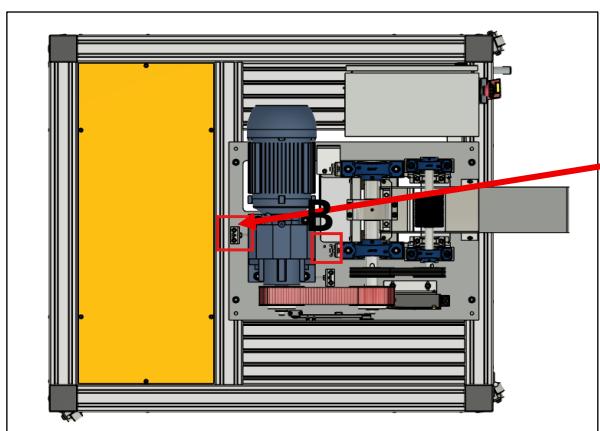
- Install the new timing belt.
- Use Adjustment Nut 1 to increase the belt tension until the specified tension is reached.
- Then tighten Adjustment Unit 2 so that the motor (X) is correctly aligned.



- Align the motor (X) centrally at 55 mm.



- Tighten the four screws after the motor has been positioned.



- Loosen Adjustment Unit 2 and reinstall it in position B.

## Assembly Instructions for Spare and Wear Parts



- Reinstall the cover and clasp lock, and
- Check that the cover is correctly seated and secured.

## 5 Final Check and Documentation:

After each component replacement, the following steps must be carried out:

### 1. Check of the complete safety chain:

- The function of all safety-critical components, such as switches, door interlocks, protective covers, and emergency stop devices, must be verified.
- All checks must be documented in the **maintenance log**. The log must include the **date** of the check and the **name** of the responsible person.

### 2. Conditions for recommissioning:

- The machine may only be restarted if:
  - **The protective cover and doors** are securely locked.
  - **Functional testing** has been successfully completed:
    - **With the door open:** The machine must not be able to start.
    - **With the door closed:** The machine must be able to start.
  - **Release is granted** by an authorized person.

## 6 Commissioning / Functional Check

### 6.1 Checks After Assembly:

After the electrical connection, the following functions must be checked:

- **Emergency stop switch:** Does the machine shut down correctly when activated?
- **Safety devices:** Do protective covers, door interlocks, and shutdown sensors operate correctly?
- **Idle operation:** Check the machine at idle for unusual noises, vibrations, or other irregularities.

All results must be documented in the maintenance log.

### 6.2 Functional Check and Troubleshooting

If problems occur after replacing a component (e.g., unusual noises, vibrations, or malfunctions), please check the following points:

- **Correct installation of the replacement part:** Was the replacement part installed and connected properly?
- **Secure connections:** Are all connections tightened to the correct torque (see chapter 3.5) and properly installed?
- **Correct replacement part:** Does the replacement part meet the specifications and correspond to the model of the original component?

If the issue persists, contact the manufacturer or a qualified technician.

## Assembly Instructions for Spare and Wear Parts



### Note:

The manufacturer accepts no liability for damage or injury resulting from improper use or failure to follow the instructions in this manual.

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