



Original Instruction Manual

Asparagus Prewasher

Manufacturer:
HMF Hermeler Maschinenbau GmbH
Dipl. Wirt. Ing. Thomas Hermeler
Lohmannstr.4
D-48336 Sassenberg-Füchtorf
Phone: 0049 (0) 54 26 / 53 84
Fax: 0049 (0) 54 26 / 53 85
Mail: verkauf@hmf-hermeler.de
Website: www.hmf-hermeler.de

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1. Introduction

This instruction manual is valid for the asparagus prewasher. It is primarily intended for the operator and provides information on the use, setting and operation of the machine. Make this instruction manual is available to all persons who work with the machine. Texts and pictures are kept neutral as far as possible. Attention is drawn to differences by means of picture headings or text notes.

Manufacturer:
HMF Hermeler Maschinenbau GmbH
Lohmannstr. 4
D-48336 Sassenberg-Füchtorf
Phone: 0049 (0) 5426 5384
Fax: 0049 (0) 5426 5385
Mail: verkauf@hmf-hermeler.de

2. Content

Read this instruction manual carefully and completely before working with the asparagus prewasher. Follow the advice for the correct care and maintenance of your machine and you will achieve constant readiness for operation and a long service life for your machine..

3. General notes

3.1 Special attention

The information in this instruction manual must be read, understood and observed by all persons who use, operate, maintain or check these machines in order to prevent hazards. In particular, read the section "Safety instructions".

The use of spare parts, accessories and additional equipment that do not originate from HMF and have not been tested and approved by HMF, that negatively change the design properties of the HMF machine or its functional capability and thereby impair active and/or passive driving safety and occupational safety (accident prevention) is not permitted.

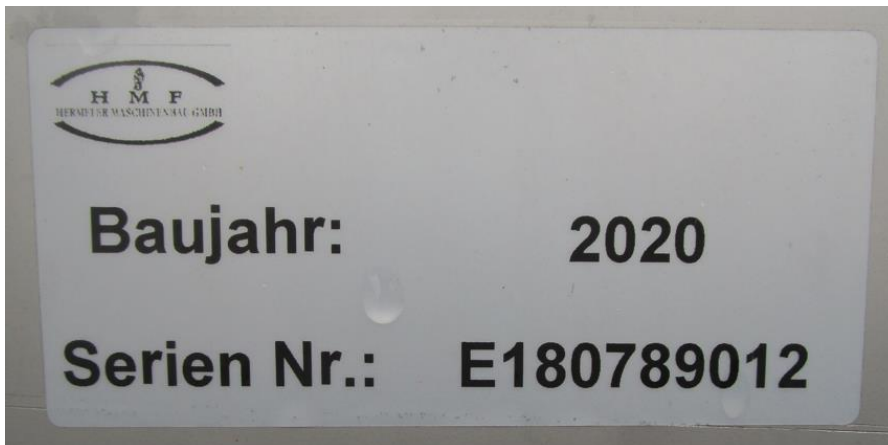
HMF accepts no liability whatsoever for damage caused by the use of non-HMF original parts, accessories and ancillary equipment. Technical specifications, dimensions and weights are not binding. We reserve the right to make changes in the course of technical development and errors.

3.2 Description of the type plate

The serial number of the machine, the type and the year of manufacture are stamped on the type plate. This type plate is normally located in or on the control cabinet.

In the case of a spare parts order, please provide us with the following information:

1. Serial number
2. Type
3. Manufacture year



4. Safety instructions

Please read and observe this instruction manual and the safety instructions before you start working with the machine!

Labelling of warnings and hazards

In this instruction manual, we have marked all passages concerning your safety and the safety of the machine with the following symbols. Pass on all safety instructions to other users as well!



Danger!

Labelling of instructions which, if not observed, pose a risk to the life and limb of the operator or his fellow human beings.

+ Measures to avoid danger



Achtung!

Labelling of instructions which, if not followed, may result in damage to the machine

+ Measures to avoid danger to the machine



Note!

Labelling of notes that enable a more effective and economical use of the machine



Environment!




Labelling of notes which, if not followed, may present hazards to the environment.

There is an environmental hazard if environmentally hazardous substances (e.g. oils, foils, etc.) are not handled properly and/or disposed of.

The warning and information signs attached to the machine provide important information for safe operation. Observance of these instructions is for your own safety.

Generally valid:

- a) Strictly follow warning signs and information signs!
- b) Pass on all safety instructions to other users as well!
- c) Keep warning signs and information signs in good condition, replace if necessary!

	<p>Before commissioning, read and observe the instruction manual and the safety instructions!</p> <p>Switch off the engine and remove the ignition key during maintenance and repair work!</p>
	<p>Attention Electrical voltage.</p>
	<p>Do not touch machine parts until they have come to a complete stop.</p> <p>During operation and when the engine is running: Do not open or remove the guard. Never reach into the rotating parts.</p> <p>Do not stand near the rotating parts or touch moving machine parts! Wait until they have come to a complete standstill!</p>



There is a risk of crushing!



Caution! Danger from ejecting parts when the machine is running.

Keep a safe distance!



Do not stay within the swivel range of the implements!

4.1. Safety and accident prevention instructions

1. In addition to the information in this instruction manual, observe the general safety and accident prevention regulations.
2. Before starting work, familiarise yourself with all control units and their function before starting work. It is too late to do this during the work!
3. Before starting the engine, make sure that all guards are in place and in the protective position.
4. The worker's clothing should be tight-fitting. Loose clothing should be avoided!
5. When repairing the machine, the power supply must be disconnected! The CEE plug must be unplugged.
6. Never touch the control cabinet with sweaty hands!
7. The control cabinet may only be opened when the machine's main electrical switch is in the "off" or "0" position.
8. Repairs to the machine may only be carried out by qualified personnel. Other users must be instructed in the machine.

5. Before commissioning

To take full advantage of your new machine, please read and follow this instruction manual before using your machine. Before using the machine, check that it has been delivered complete. Remove the packaging carefully and completely. Familiarise yourself with the technical instruments. Please always observe the safety instructions. We must reject warranty claims resulting from improper handling!

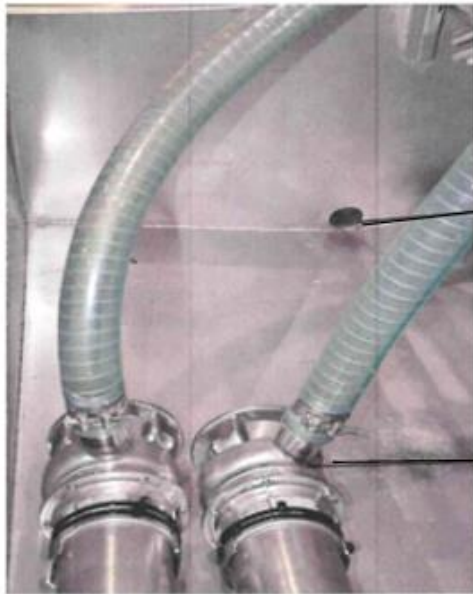
6. Commissioning

The asparagus prewasher should be placed on as level a surface as possible. A 2 or 3 inch stopcock must be available for the water drain. A CEE plug with 16 or 32 A is required for the power connection.

The water basin must be filled with water before start-up to avoid damage to the pumps due to dry running.

When filling the water basins, please note that the basins must always be filled to the maximum with water.

Water level always at maximum



Waste water discharge

Submersible pump

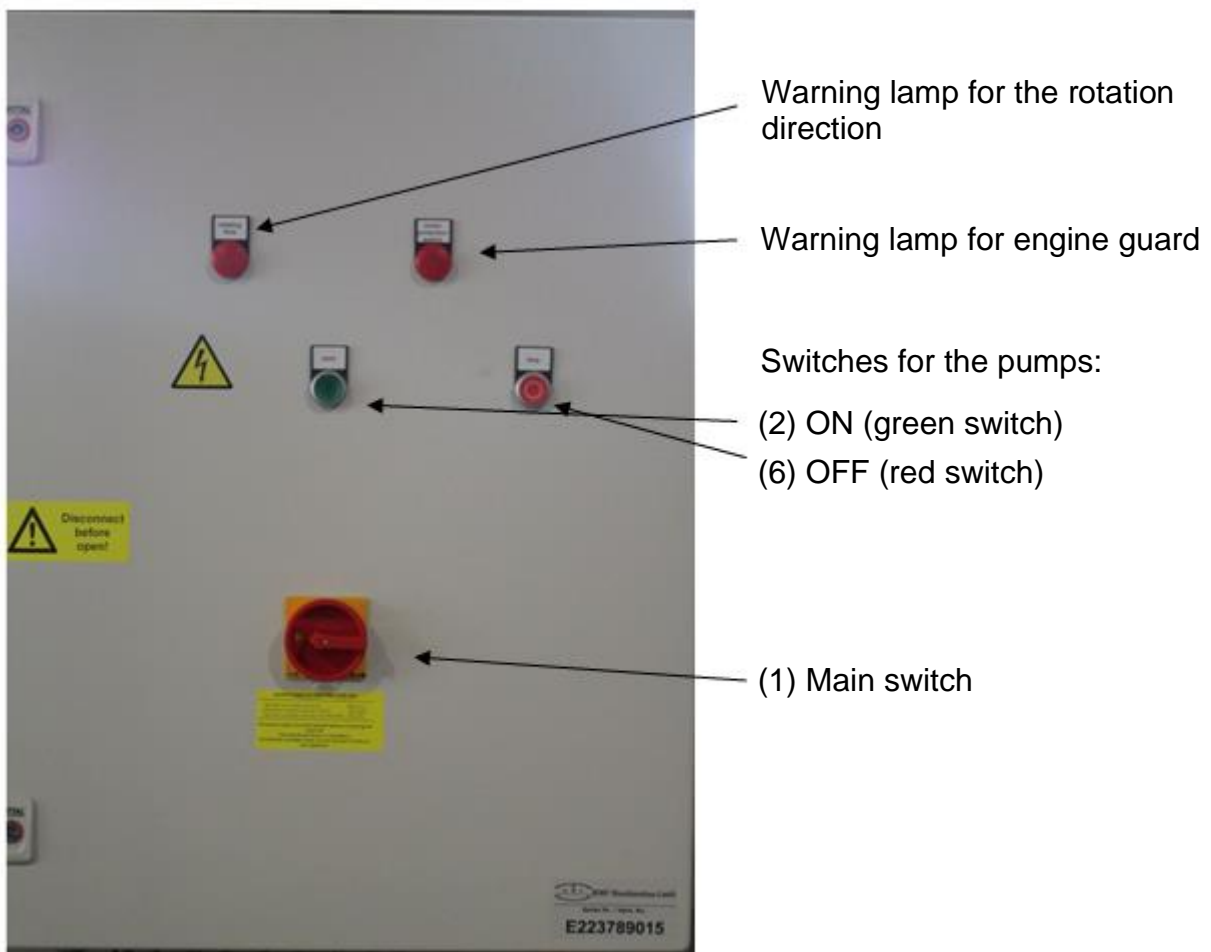
Submersible pumps must not be allowed to run without water, otherwise the seals in the in the submersible pump will be destroyed.

7. Description

The asparagus prewasher is suitable for pre-cleaning asparagus or other vegetables. The asparagus prewasher consists of a stainless steel basin. A submersible pump transports the water from the water basin into the water distribution basins. An angular gear motor transports the asparagus boxes slowly under the water distribution basins. The asparagus prewasher is equipped with two safety switches.

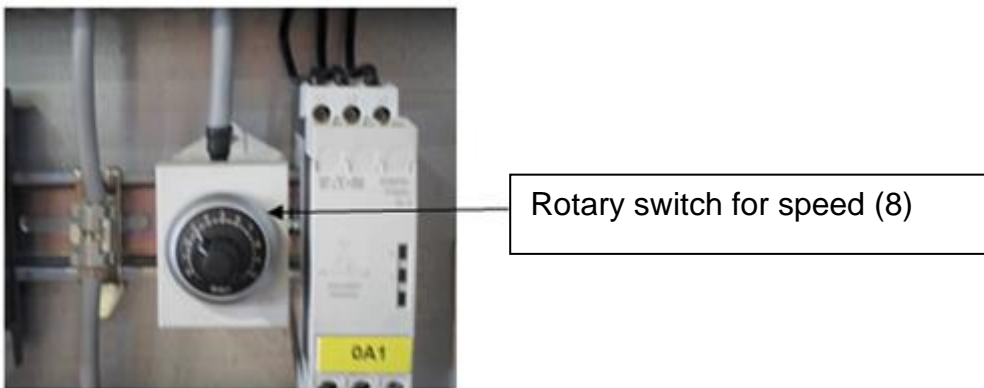
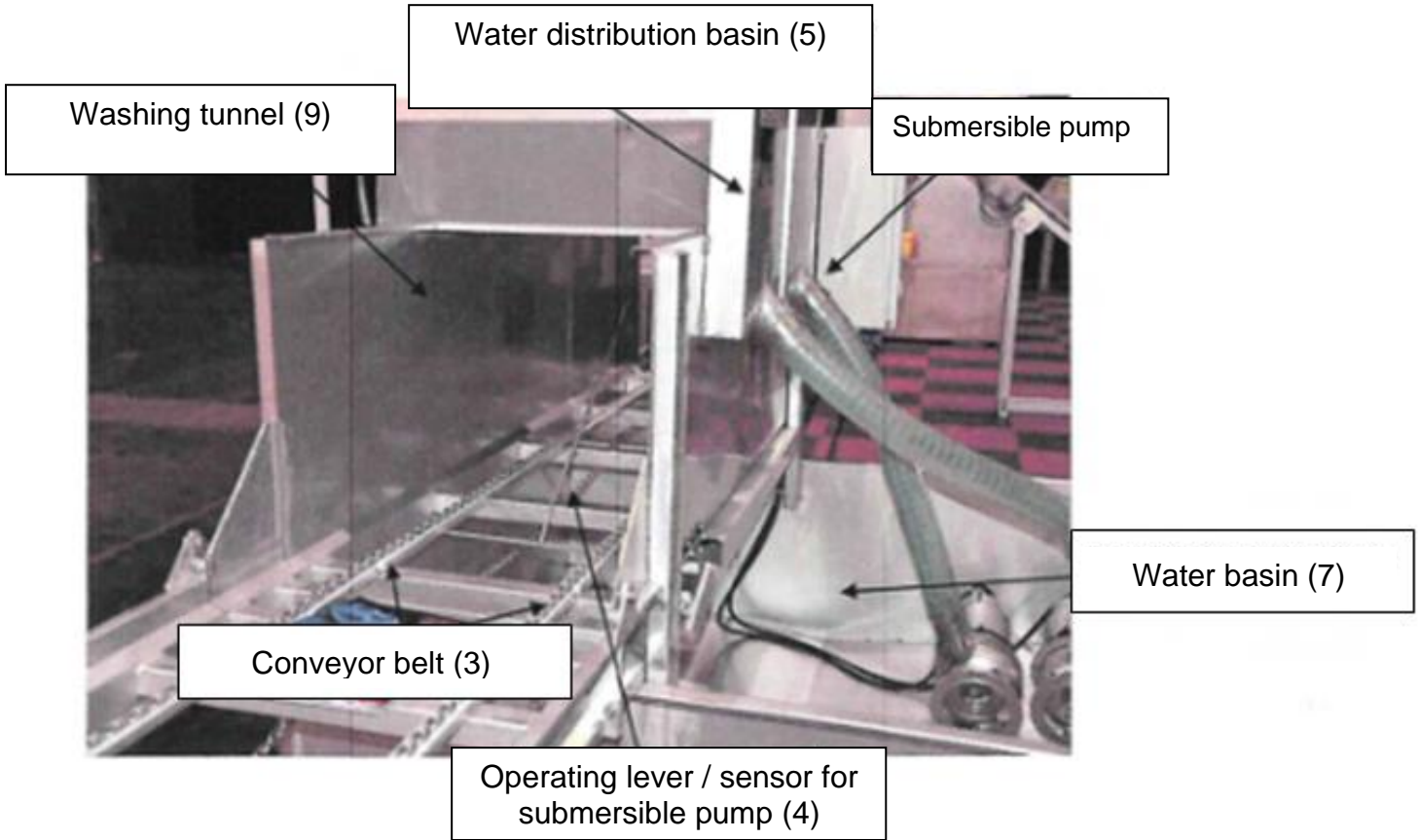
8. Operating

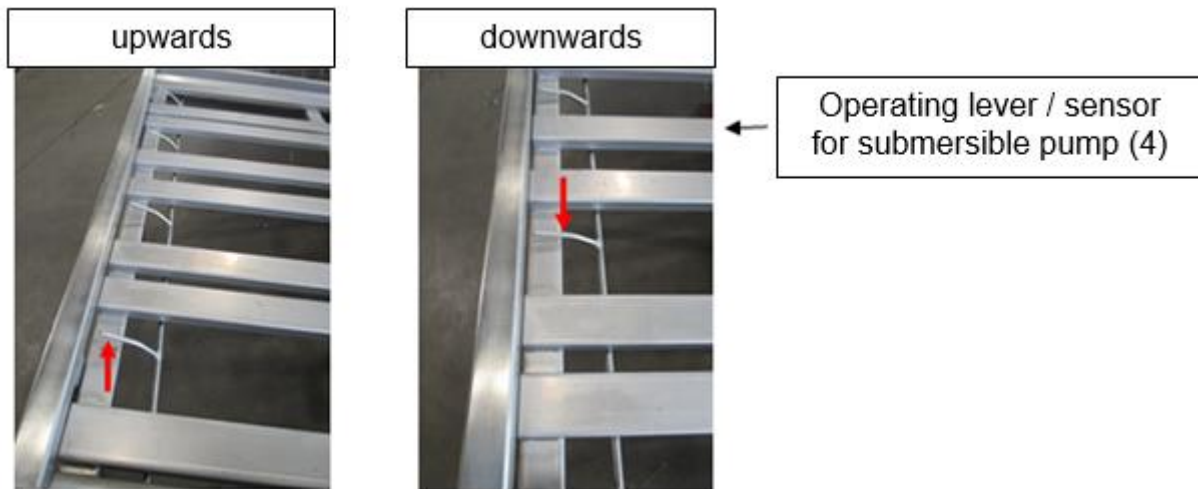
- First, fill the containers with sufficient water. If there is still a connection for the permanent fresh water supply, this must also be connected.
- To be able to supply the system with power, the main switch (1) must be in the "on" position.
- The green marked switch for the submersible pump(s) (2) must be pressed. The pumps switch on one after the other in a controlled manner.
- Then the asparagus boxes have to be placed with the perforated bottoms on the conveyor belt (3). The asparagus boxes are then slowly conveyed through the washing tunnel (9).



- You can adjust the speed of the variable conveyor belt. The rotary switch (8) for the speed is located in the control cabinet.
- As soon as the asparagus boxes press down the operating lever (4), the submersible pump(s) start(s). The the water is pumped into the water distribution basins (5). As soon as no more asparagus boxes are on the operating lever, the submersible pump(s) switch(es) off automatically.

- At the end of the conveyor belt there is a safety switch that stops the belt when the box has reached the end. (The box does not fall down.) As soon as the box is removed from the conveyor belt, the conveyor belt switches on again.





To stop the entire machine, the following must be done:

- Press the red switch (6) to stop the pump(s) gently (set one after the other).
- Turn the main switch from "1" to "0". The whole machine switches off.

9. Rotation direction of the pump

- The rotation direction of the pump must be checked before commissioning! Due to the supply of the pump with 400 V, phase shifts may occur.
- There is an arrow on the cast housing of the pump that indicates the running direction of the impeller. A wrong running direction can also be recognised by a loud noise.
- To check the running direction, it may be necessary to run the pump outside the water tank. When doing this, you should only run the pump for a very short time, as the pump can be damaged when running without water.
- If the pump runs in reverse direction, you have to switch the 2-phase power supply for the pump in the control cabinet or in the plug. In this way, the running direction is changed.

10. Maintenance & Care

The water basins (7) have to be cleaned regularly. The sand settles on the bottom and is then taken out with a shovel or rinsed out with water. The water distribution basins must be cleaned regularly, as dirt can get stuck in the slot.

All machines with electrical equipment must be checked **once a year** by an electrical specialist!

10.1 Cleaning schedule

	daily	weekly	before / after the season
Water change: Drain off dirty water and use a shovel to get the sand out Rinse with clean water	X		
Conveyor belt cleaning: Hose down the chain / chain wheels / running rails with water and clean them of dirt.	X		
Check the pump(s) of dirt, if necessary remove the dirt	X		
Spray the machine inside with water		X	
Clean the whole machine thoroughly: - Empty the machine - Drain off dirty water - Remove sand with a shovel and rinse. - Clean the entire machine thoroughly with a household cleaner - Rinse thoroughly with clean water			X

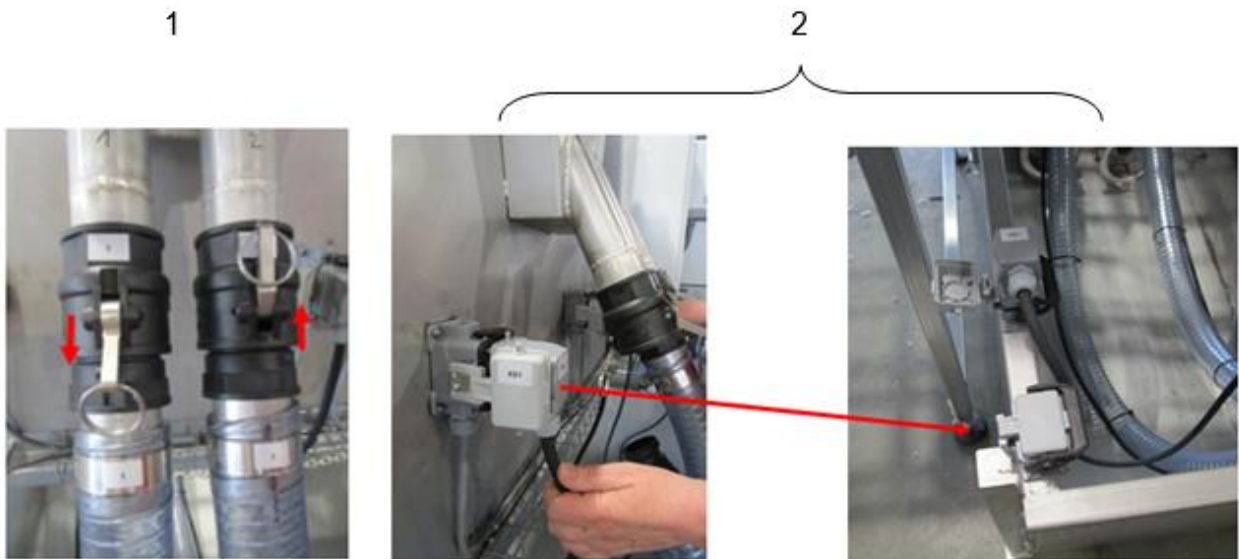
Attention!

BEFORE commissioning after the winter, make sure that:

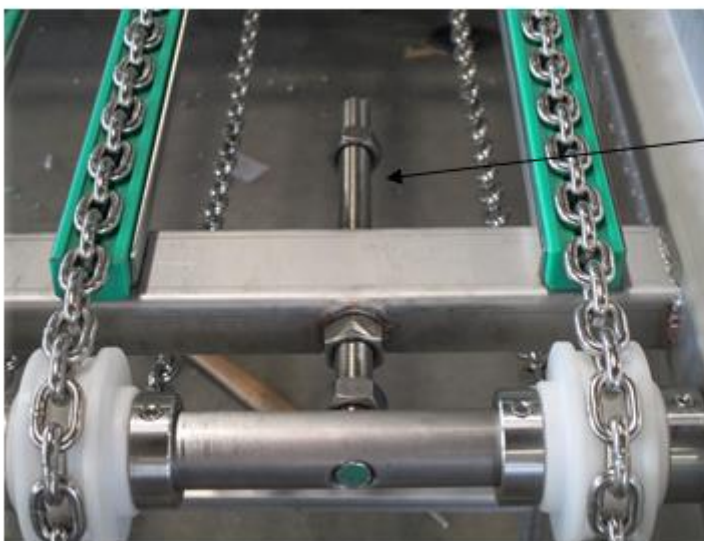
- Is there condensation from the winter atmosphere in the control cabinet?
- If so, please allow to dry/ventilate. Please do not connect the power until everything has dried! (Danger!)
- Is the direction of rotation of the current correct (clockwise)?
- Are 5 cores connected in all plugs/cables (also extensions!)? This is necessary, otherwise the control modules can be damaged.
- Check all plugs / cables for damage.
- Check the chains / sprockets / pumps.
- Check the electronic components.

11. Pulling out the water basin(s) - optional

1. Remove the pump hoses from the water basin.
2. Change the plug connections of the pump connections:
XS1 from the machine to XS1 on the water basin
XS2 to XS2
XS3 to XS3
etc.



12. Notes on the chain conveyor



Bolt for adjusting the chain

The correct tension of the chain: The chain must sag (see photo)

