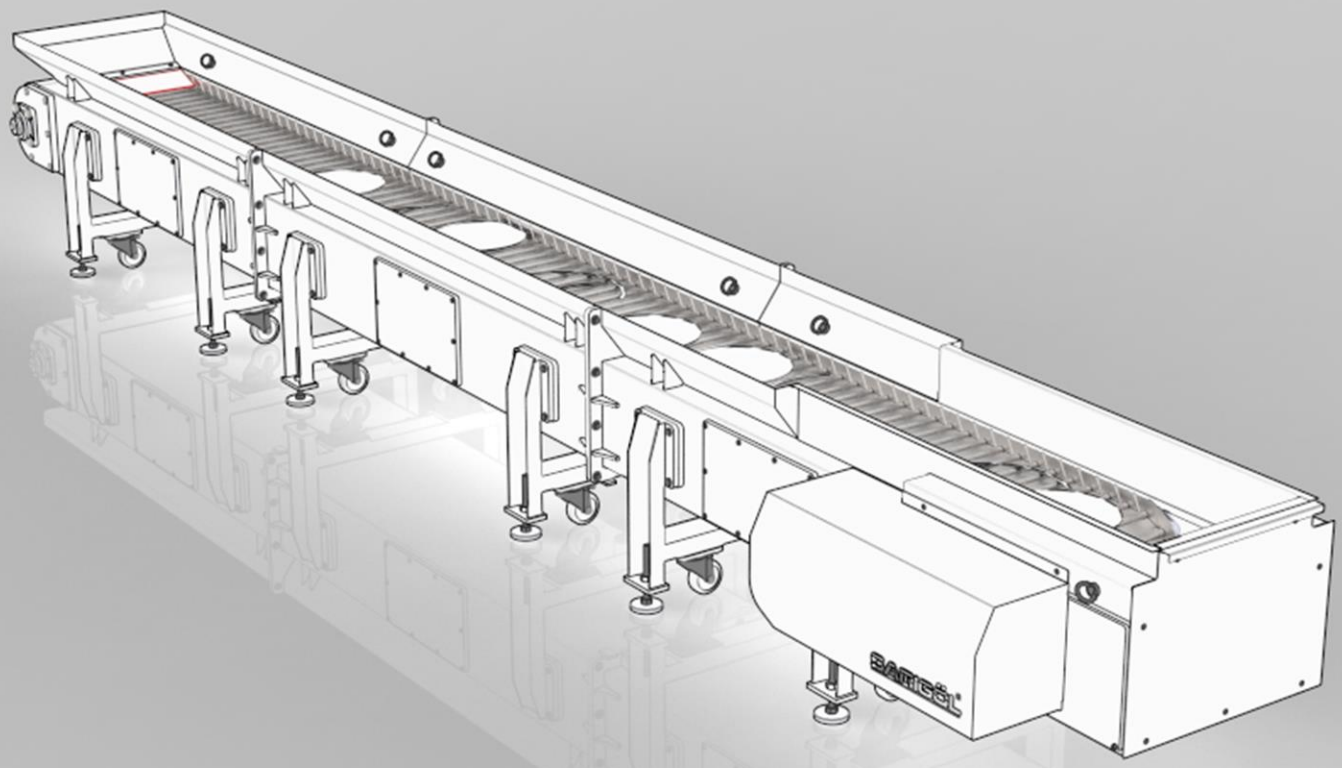
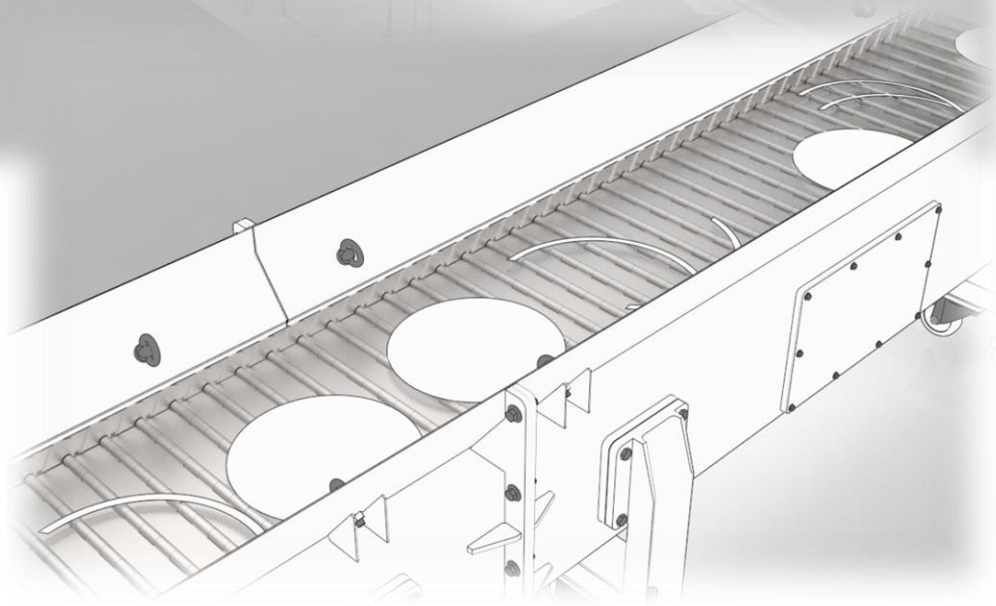
SARIGÖL®
conveyor systems
design & make it.



Scraper Conveyor

User Manual



Health and Safety

This manual provides instructions for the daily operation of the equipment.

It must be accessible at all times to all personnel working with the equipment.

The following conditions are important:

- The manual and other relevant documents must be retained for the entire service life of the equipment.
- The manual and other relevant documents should be included as part of the equipment.
- The manual must be delivered to all users of the equipment.
- The manual should be updated to reflect any additions or changes.
- The manual describes the procedures to be followed when using the equipment.

Safety Code

- Read the relevant sections of the instructions before using, maintaining, or servicing the equipment.
- Assume that all electrical equipment is live.
- Assume that all hoses and pipelines are under pressure.
- Ensure the power supply is turned off when servicing or maintaining the equipment.
- Disconnect the connections and release the pressure in pipes and hoses in a controlled manner.
- Service and maintenance should only be performed by authorized personnel.
- Use only spare parts approved by Sarıgöl Konveyör Sistemleri.
- Ensure the machine is securely mounted and installed according to the instructions before starting.
- Use the machine only for its intended purpose.
- If you encounter abnormal vibration or noise, stop the machine and consult the manual.
- Electrical installations should be carried out by an authorized electrician.
- Drain cutting fluids from tanks before performing any lifting operations.

Contents

1 General Description of the Machine and Safety

1.1 Introduction

Pay attention to all safety and operating warnings stated in this manual. Doing so will reduce the risk of accidents and increase the machine's lifespan.

Before assembling, operating, or maintaining the machine, ensure that this user manual has been read and understood by the relevant personnel (operators, maintenance staff, etc.)

It is dangerous for unauthorized individuals to interfere with the device.
Failure to comply with the instructions, procedures, or safety warnings in this manual may result in accidents, damage, and injuries.

1.2 General Warning

The system is protected against electrical leakage and jamming. Although the machine is equipped with safety systems, warnings and usage labels are placed on it. These labels must be observed and adhered to.

In addition to the company label containing conveyor information, various warning labels are on the conveyor. These labels are placed to guide users in operating and maintaining the conveyor, identify potential risks, and warn those at risk. Do not remove any labels from the conveyor.
Safety labels ensure that both you and your machine operate safely and healthily.
If one or more of the labels are removed or fall off for any reason, please request replacements from the manufacturer. Be sure to follow all warnings.

1.3 Electricity 

The drive box is designed according to protection class IP54. The driver power connection cables are protected by rubber-coated steel spirals, which shield the system from external factors like dust and water. This also prevents the spiral cables from being cut or damaged. Do not use worn or crushed cables; replace them.

 **While motors or gear motors are operating, live, bare (open plug/terminal box), moving, or rotating parts pose a risk of life-threatening or serious injury. Always follow the provided documents.**

1.4 Driving System

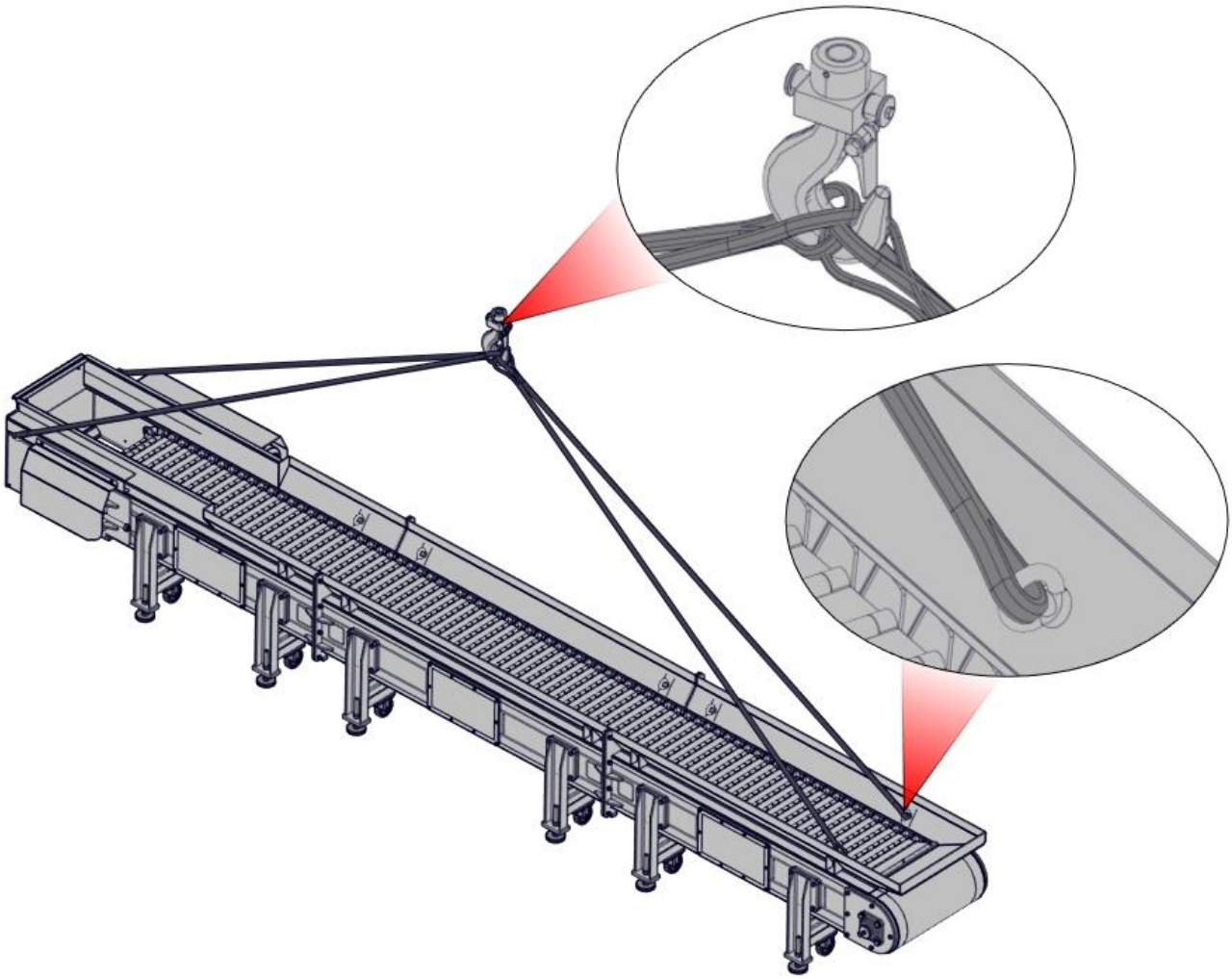
The drive system of the machine, including the motor, reducer, shaft, gear, and chain, is safely enclosed. This design prevents external interventions from affecting the working parts and keeps external factors away from them. Additionally, risks from rotating parts have been eliminated, and users have been warned with the necessary labels.

1.5 Tow Hitch

For domestic shipment, the unit can be connected to 2 or 4 lifting eyes on the conveyor and lifted with the help of a crane during loading and unloading.

Stay at a safe distance from the load during loading and unloading. Only authorized persons should intervene.

FIGURE 1.5.1



2 Conveyor Description and Components

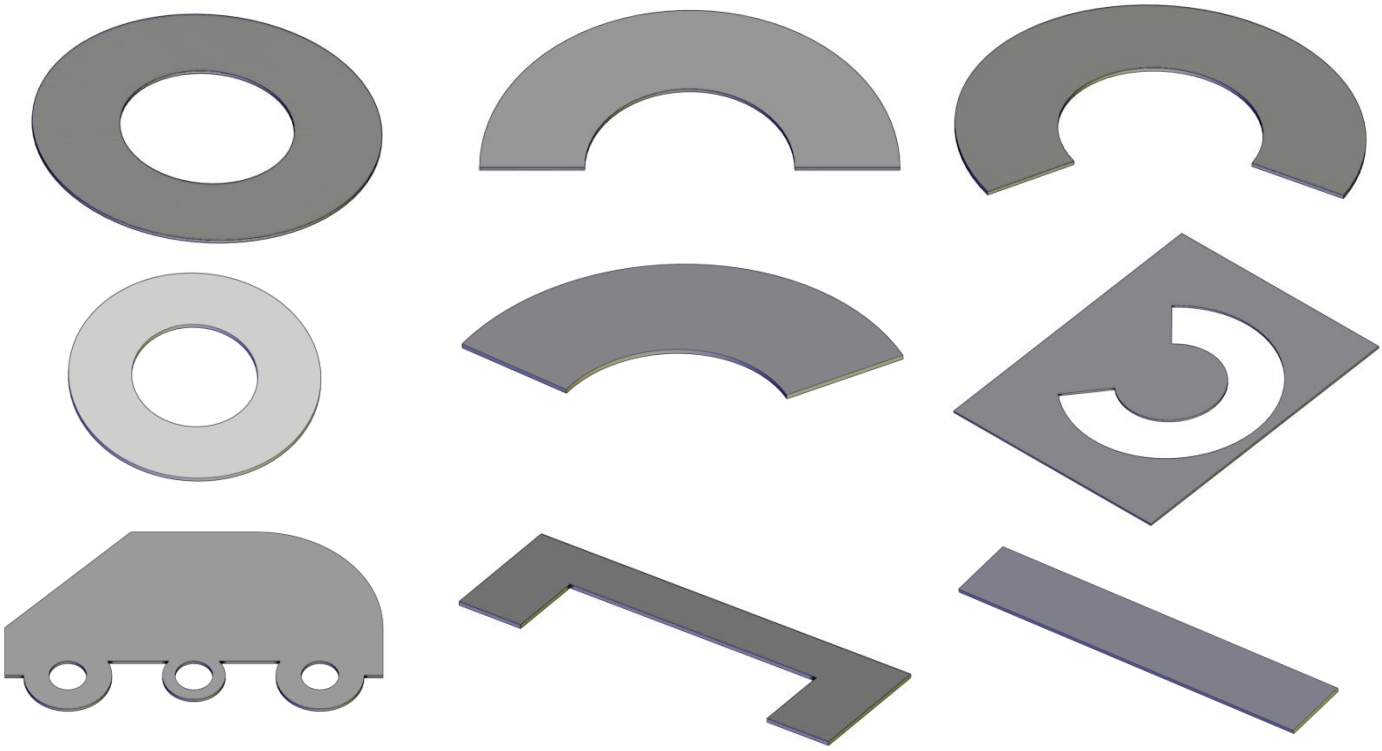
Scrap conveyors are used to discharge metal parts that come out of press machines.

These systems are designed to evacuate scrap parts generated during the manufacturing process. Parts of varying dimensions from the press lines can be easily transported.

When used correctly, the chip conveyor will transport the chips generated during manufacturing out of the machine cleanly and safely, saving you time and labor.

Accessories such as pumps, indicators, level control devices, brush systems, or oil scrapers can be added to the conveyor based on customer demand or need.

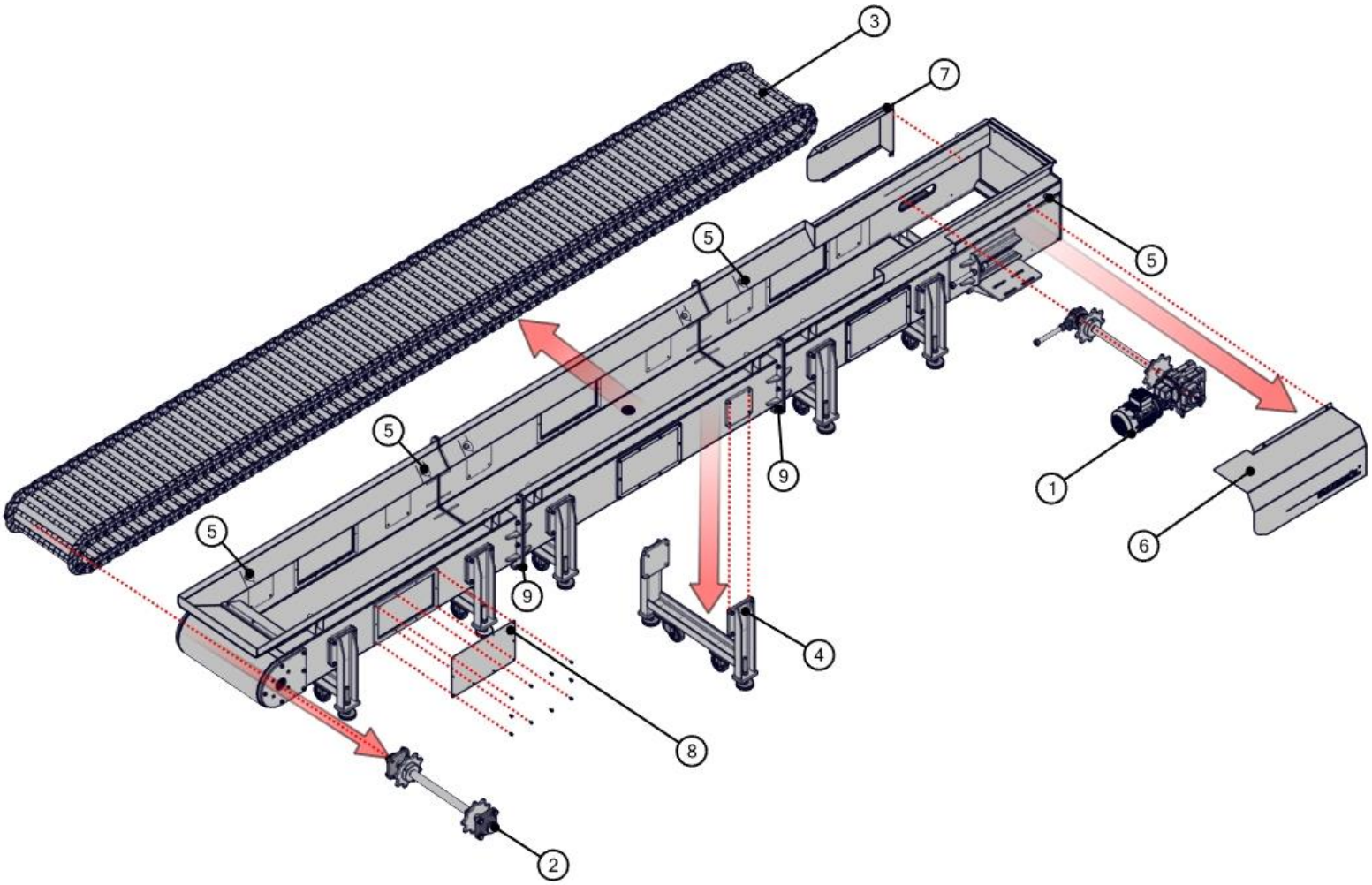
2.1 Suitable Scrap Types



Do not touch the chip with bare hand!

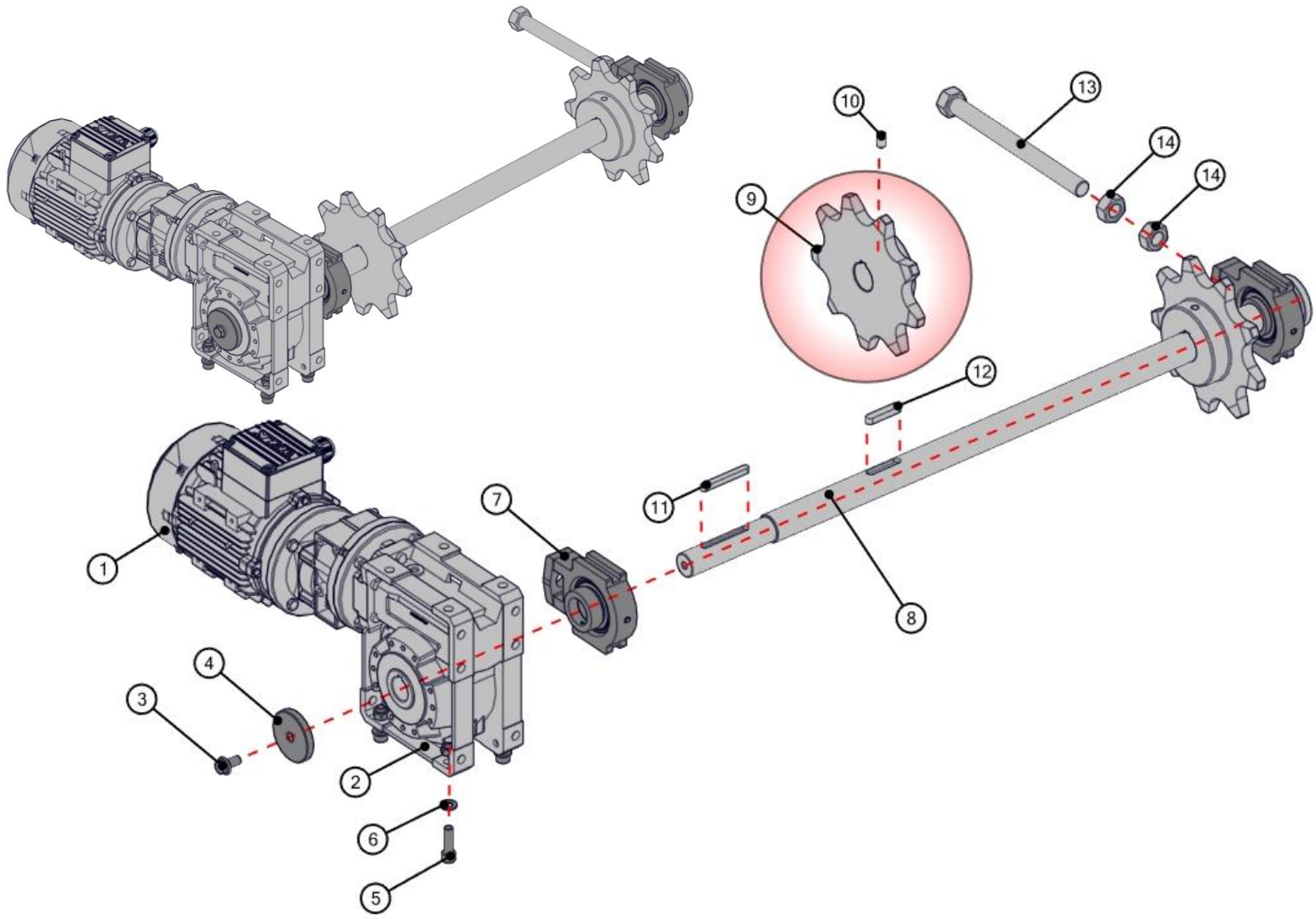
Use personal protection!

2.2 Conveyor Component Groups



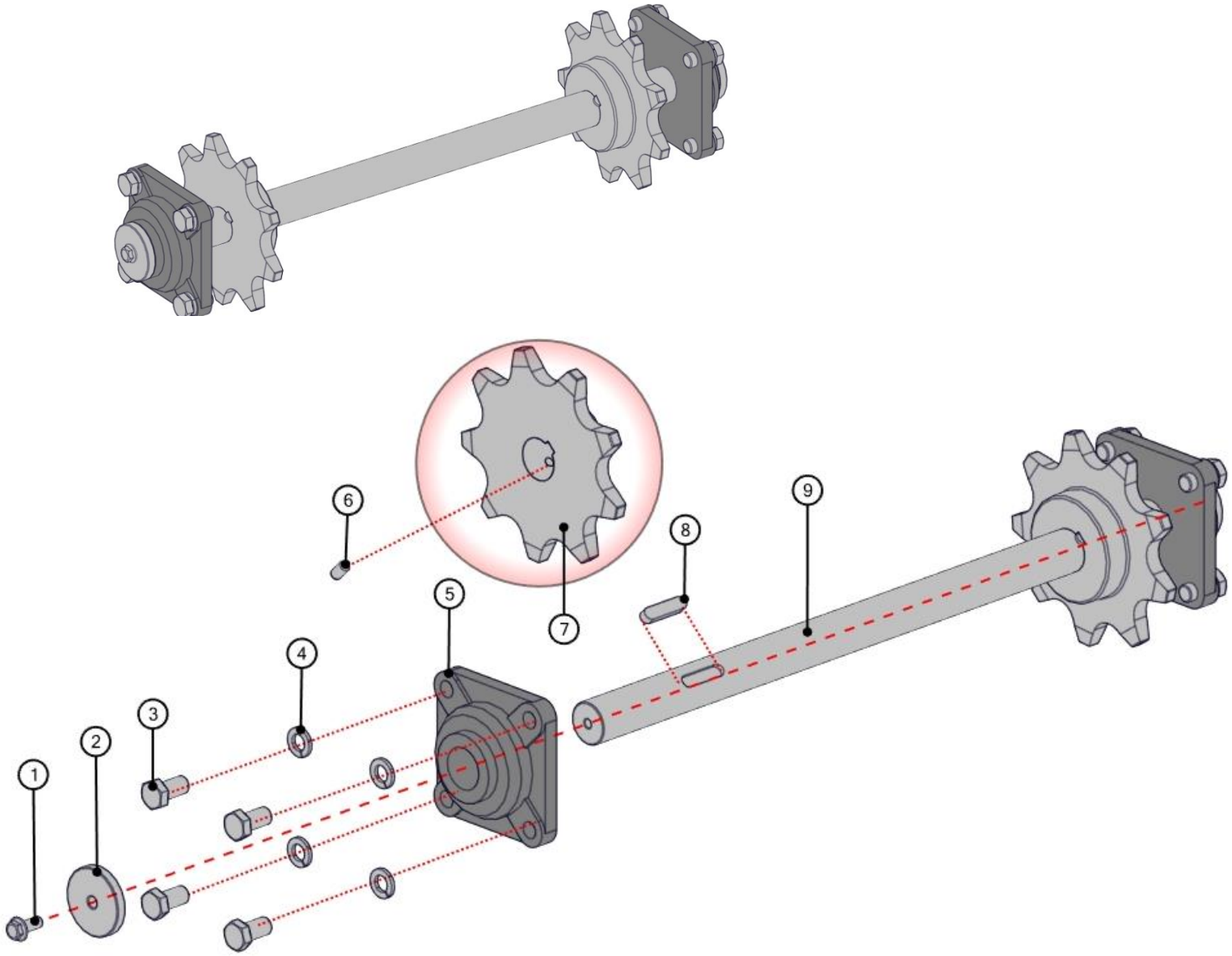
BALLOON NO	GROUPS
1	Propulsion and turnbuckle group
2	Rear idler return group
3	Hinged belt group
4	Wheeled foot group
5	Lifting eye group
6	Reducer - motor protection cover group
7	Turnbuckle protection cover group
8	Maintenance cover group

2.2.1 Propulsion Group



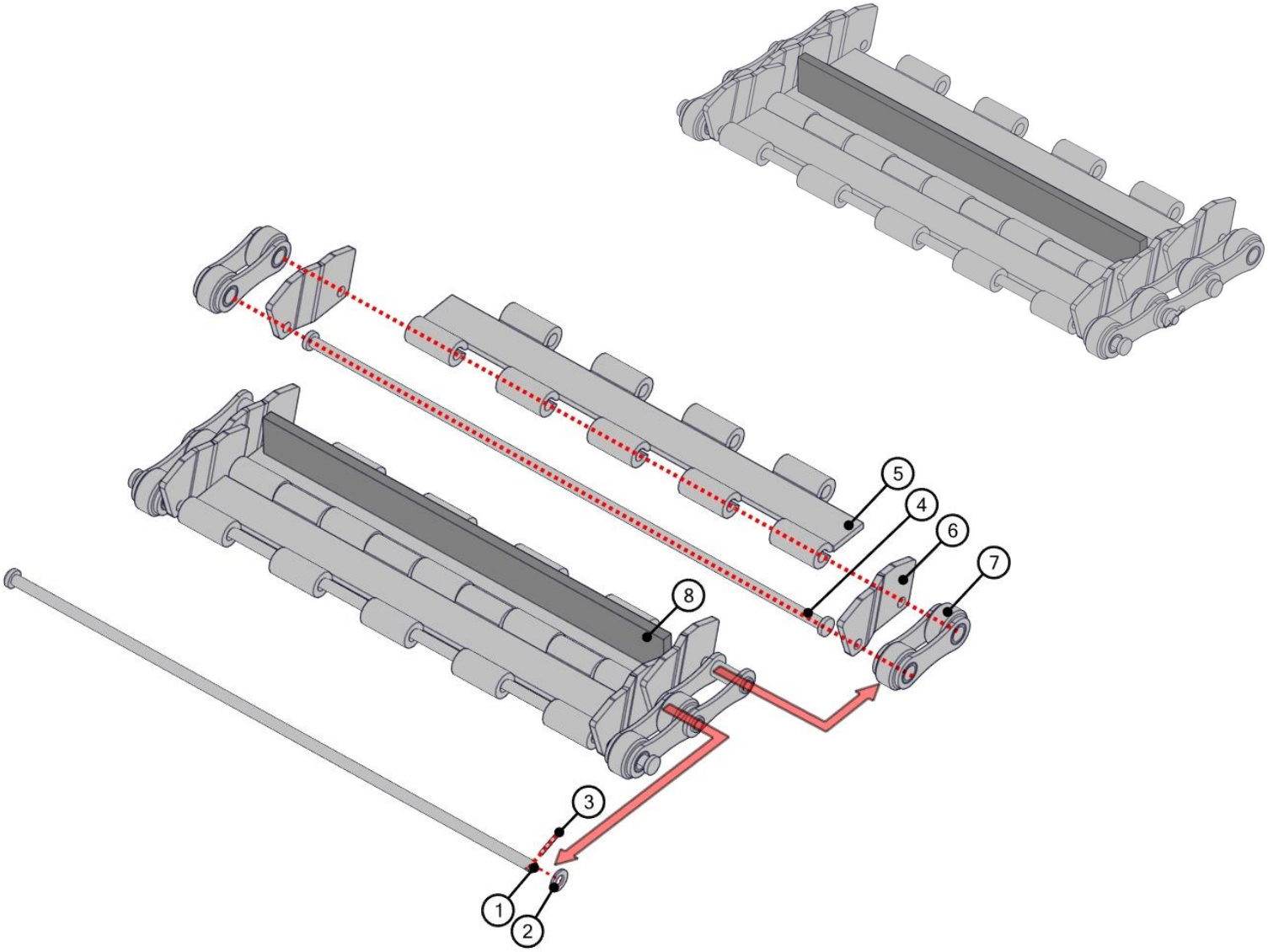
BALLOON NO	ITEM NO	DESCRIPTION	QUANTITY
1	150-01-0589	ELECTRIC MOTOR (0,75KW 1500 rpm. 80/B14 IE3 ELK)	1
2	150-01-1939	REDUCER (PQ75 INTERMEDIATE GEAR 9 rpm B14 HYDRO-MEC)	1
3	150-01-3153	BOLT FLANGE FULL TEETH WHITE DIN6921 (M10X20)	2
4	150-01-3091	SPECIAL MANUFACTURED PULLEY (Outer Diameter: 65mm Inner Diameter: 11mm Thickness: 12mm)	2
5	150-01-0060	BOLT IMBUS FULL TEETH WHITE DIN912 (M10x35)	4
6	150-01-2093	WASHER FLAT WHITE DIN126 (M10)	4
7	150-01-0085	BEARING (UCT 207)	1
8	150-01-0266	PROPULSION SHAFT	1
9	150-01-2777	CHAIN SPROCKET (63.50 PITCH 35' 9 TEETH)	2
10	150-01-3053	SETSCREW POINTED DIN 914 BEYAZ (M10x20)	2
11	150-01-0114	FLAT KEY DIN 6885 (8X7X70)	1
12	150-01-0603	FLAT KEY DIN 6885 (10X8X50)	2
13	150-01-1130	GIJON TAP (M20X250mm)	2
14	150-01-0381	NUT WHITE DIN 934-6 QUALITY (M20)	6

2.2.2 Rear Idler Return Group



BALLOON NO	ITEM NO	DESCRIPTION	QUANTITY
1	150-01-0041	BOLT FLANGE FULL TEETH WHITE DIN 6921 M10X25	2
2	150-01-3091	WASHER SPECIAL MANUFACTURING (Outer Diameter: 65mm Inner Diameter: 11mm Thickness: 12mm)	2
3	150-01-0057	BOLT FULL TEETH WHITE DIN 933 (M16X30)	2
4	150-01-1031	WASHER SPRING WHITE DIN127/B (M16)	8
5	150-01-2547	BEARING (UKF 209)	2
6	150-01-3053	SETSCREW POINTED DIN 914 WHITE (M10x20)	2
7	150-01-4193	CHAIN SPROCKET (63.50 PITCH 40' 9 TEETH)	2
8	150-01-1947	FLAT WEDGE DIN 6885 (12X8X50)	2
9	150-01-0266	REAR IDLER TURN SHAFT	1

2.2.3 Hinged Belt Group

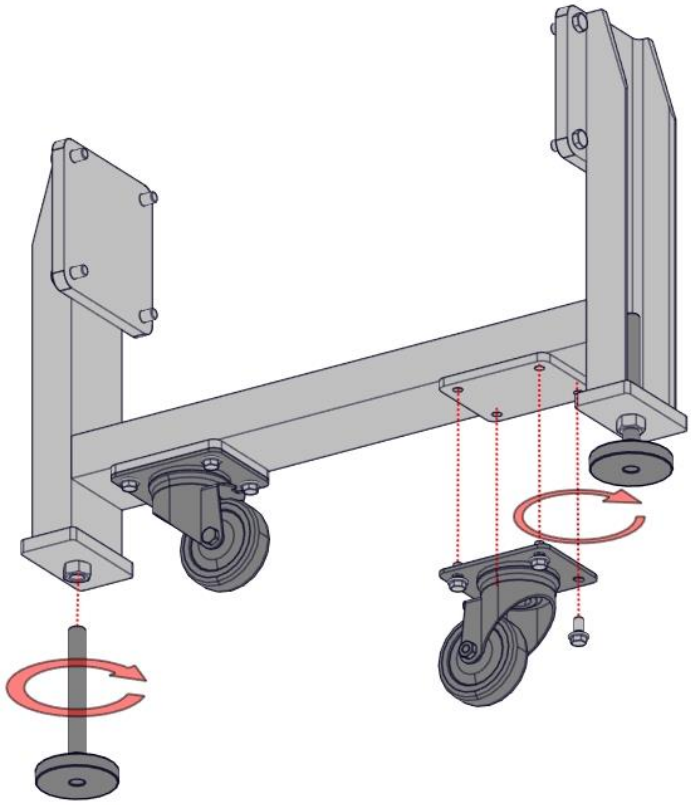


BALLOON NO	ITEM NO	DESCRIPTION	QUANTITY
1	150-01-1092	SHAFT TRANSMISSION (Ø12x6000 mm)	1
2	150-01-3178	METRIC FLAT WASHER WHITE DIN 125 (M12)	1
3	150-01-0213	CUPILIA (3x40 mm)	1
4	150-01-1092-R1	SHAFT TRANSMISSION (Ø12x6000 mm)	1
5	150-01-2761	SLITTED SHEET METAL 6222klt.144x3 mm (+) 0.00 mm (–) 0.10 mm ROLL OUTER DIAMETER:Ø1200mm INNER DIAMETER:Ø500mm	1
6	150-01-3175	63.50 PITCH CHAIN SHEET	1
7	150-01-0064	CHAIN C2102HP (63.50 PITCH PIN HOLEY)	1
8	150-01-0363	CARRIER	1

3. INSTALLATION AND ASSEMBLY

3.1 Conveyor Installation and Connections

The conveyor can be transported to the installation site using the transport wheels (Figure 3.1.1) included in the package. Next, position the machine with the chip conveyor into the channel on the machine, bench, or press, and/or into the chip discharge section. The chip conveyor should be balanced under the machine using a water gauge.



After balancing, the conveyor must be secured with fixing bolts to prevent movement during operation. Following installation, connect the electricity to the control switch or the power input at the panel end. Parts not in contact with coolant should be greased, and the conveyor should run idle for 5 minutes before operating the chip conveyor and the machine.

There must be a grounding line in the working area of the conveyor. Do not apply electricity without proper grounding. Remember that grounding errors can lead to serious injuries. Never use any cable other than the standard yellow-green cable for grounding.

The chip conveyor should operate alongside the machine, and it is best to continue running the conveyor for a short period (at least 5 minutes) after the machine stops. If this process cannot be automated from the machine, it can be done manually from the driver/control panel on the chip conveyor. This practice will extend the conveyor's lifespan and save energy by avoiding unnecessary operation.
As mentioned in the assembly section, certain considerations must be addressed before the machine is operated for the first time. These points are listed below:
Check the balance while the machine is in the operating position. Do not interfere with the working or moving parts. Lubricate surfaces that do not come into contact with coolant with grease.
Check the electrical connections and motor current; loose connections are dangerous. Verify the machine's working direction.

3.2 Electrical Panel

Our conveyor models that require remote control operation use inverters (AC speed control devices) (Figure 3.2.1 and Figure 3.2.2), which are specially designed and manufactured to meet Sarıgöl Standards.

Note: Applicable only to products with control panels!

Figure 3.2.1

Figure 3.2.2

Drivers are initially sent with programmed values for the customer's operation. If conditions change, you can access the driver user manual electronically from our website or request it from our company to adjust the parameters according to the customer's needs.

- **Driver control must only be carried out by authorized personnel and should not be adjusted by others.**
- **Operations that do not meet requirements may result in serious financial losses or personnel injuries.**
- **Operations that do not meet requirements may cause minor injuries or material losses.**
- **During installation, commissioning, or maintenance, follow the instructions in the safety and precautions section of the manual.**
- **Do not use the speed controller if it has damaged or missing parts, as this may cause injury.**
- **Keep away from flammable materials to prevent fire hazards.**
- **Avoid dropping cable fragments or screws into the device, as this may damage it.**
- **Ensure no power is applied before making connections to avoid electric shock risks.**
- **The cover must be properly closed before energizing the device to prevent electric shock risks.**
- **Verify that external fasteners are correctly connected to prevent malfunctions.**
- **Do not open the speed controller cover when power is applied to avoid electric shock risks.**
- **Avoid touching the speed controller and surrounding circuits with wet hands to prevent electric shock risks.**
- **Do not touch the device's connection externals (including the control terminal) to avoid electric shock risks.**

Temperature, humidity, dust, and vibration in the environment can cause components in the speed controller to age, potentially leading to malfunctions or reduced device lifespan. Therefore, routine and periodic maintenance of the device is essential.

The device must be serviced in the following cases:

- If there is an abnormal change in the motor's operating sound,
- If there is vibration during motor operation,
- If there is a change in the environmental conditions where the speed controller is installed,
- If the speed controller is overheating.

Routine Cleaning

The speed controller must always be kept clean.

Dust on the speed controller should be removed, and metal dust should be prevented from entering the device.

Oil stains on the speed controller should be cleaned.

Periodic Check-up

- Check ventilation ducts and keep them clean.
- Ensure that no screws are missing.
- Verify whether the speed controller is corroded.
- Check for any arcing on the cables.
- Perform an insulation test on the motherboard.

4. Operating

4.1 General

A driver and/or control panel containing the necessary equipment has been placed to operate the conveyor and easily monitor its operation.

4.2 Operating the Conveyor

In manual mode (see Figure 3.2.2), the start/stop buttons on the keypad are active but do not serve a function and are intended for manual operation. To start the conveyor in the working direction, press the start button once.

The conveyor belt speed is preset by the manufacturer to meet the customer's required capacity and will automatically adjust to the desired value after activation.

Using the up and down buttons shown in Figure 3.2.2, the belt can be operated manually to move forward or backward in the event of a malfunction alarm. The belt will stop when the buttons are no longer pressed. If the belt becomes stuck and cannot be operated for any reason, it will stop and trigger the alarm again. No further operation can be performed with the up and down buttons. **In this case, do not force the device by repeated attempts; instead, seek technical support from the manufacturer immediately.**

In this mode (see Figure 3.2.2), the start button on the keypad is used to activate automatic operation. After completing all necessary checks, simply press the start button to begin the conveyor operation and control it from the machine. The start button also has a forward operating function for fault detection during a malfunction.

The stop button allows for manual operation of the conveyor after it has been stopped by the machine. It also enables the conveyor to run in reverse manually, aiding in the detection of any machine issues during a malfunction. Pressing the stop button once will start the conveyor in the reverse direction. Once the malfunction is resolved, pressing the start button will automatically resume conveyor operation from the machine.

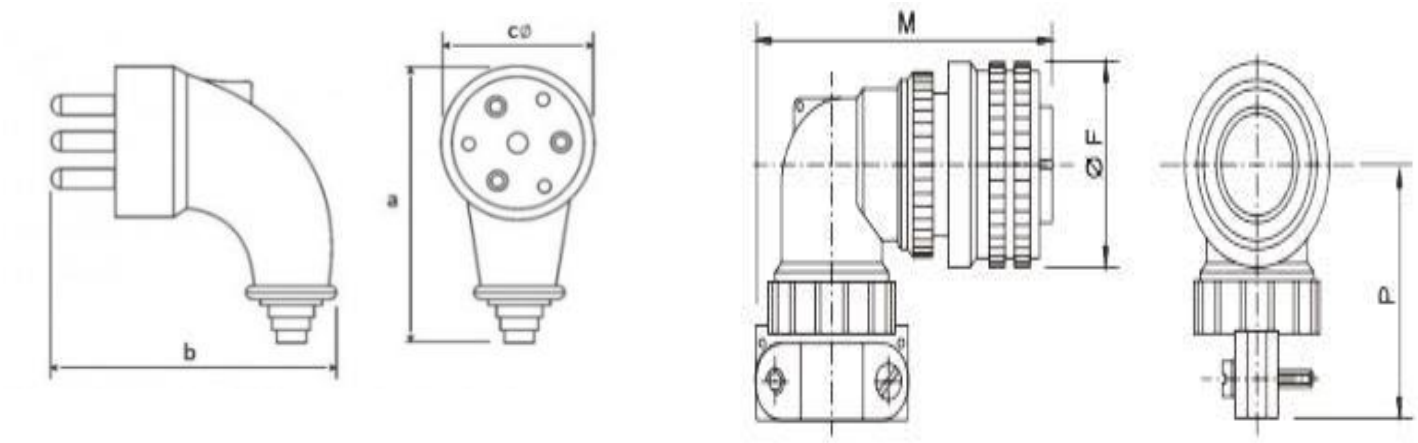
In the event of a malfunction with the conveyor controlled by the machine, the conveyor will enter failure mode. As a result, the machine will stop completely for issues that require intervention, and the fault cannot be fixed by the machine itself. To identify the problem, all system components, including the belt, chain, motor, reducer, bearings, and other equipment, must be inspected by authorized personnel. The machine can be operated manually to diagnose the issue using the start and stop button functions. Once the problem is resolved, the machine can be restarted by setting it to automatic mode again with the start button.

If the conveyor does not work despite the all intervention, maintenance and cleaning, no action should be taken, the machine should not be forced by continuous attempts and **technical support should be obtained from the manufacturer immediately.**

Only authorized operators or electricians should access the control panel because it is extremely dangerous and poses a life-threatening risk.

Depending on the machine's status and the customer's request, the manufacturer supplies the three-phase plug or military socket for the driver energy supply pre-assembled.

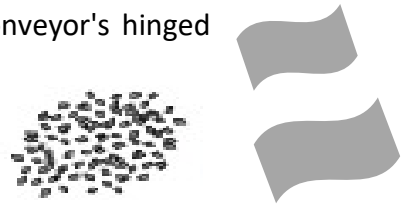
Note: Only valid for products with military sockets!



5. MAINTENANCE

5.1 Weekly Maintenance

- It is very important to clean any foreign material, chips, or debris from the belt before starting conveyor maintenance.
- Operate the conveyor in the reverse direction as shown in the picture (Figure 5.1.1).
- Place the fabric or waste paper in the idler return section of the conveyor's hinged belt.
- Check that the fabric and accumulated chips emerge from the conveyor discharge .
- Apply this procedure at least three times.
- You can perform the conveyor's weekly maintenance by completing this procedure once a week.



Fabric and waste paper

Direction of cleaing

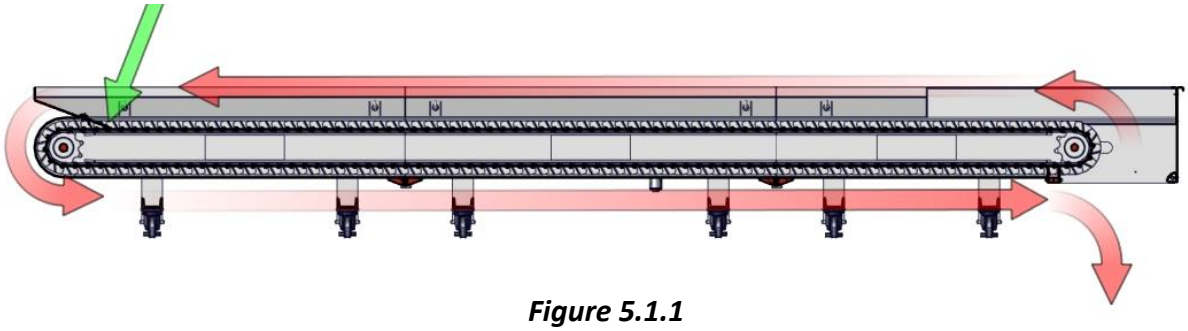


Figure 5.1.1

The conveyor should be examined, and any chips or other harmful materials that could cause a malfunction should be cleaned.

The coolant mixture ratio should be checked, and if it is insufficient, it should be replenished.

The electrical connections and bolt connections of the electric motor must be checked.

The tension of the belt should be checked and adjusted if necessary. A simple way to check the tension is to manually push the belt upwards. The tension is appropriate if the gap is 10mm (see Figure 5.1.3). Measure the distance X from both sides; each side should be the same.

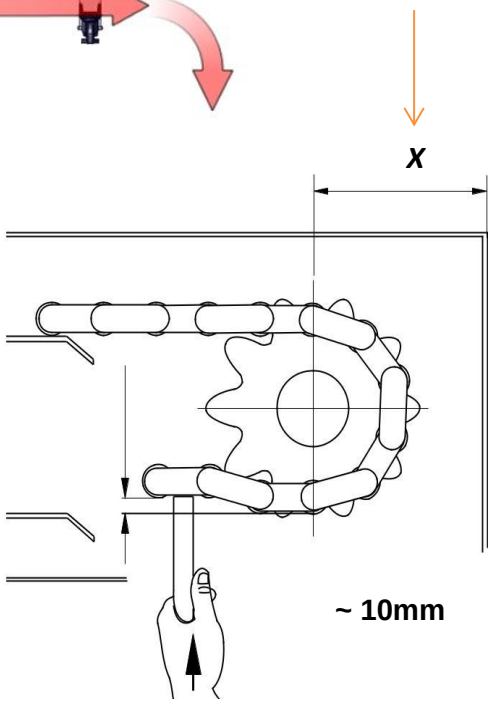


Figure 5.1.3

5.2 Monthly Maintenance

The conveyor should be removed from under the bench, and the coolant should be drained. The cleaning cover should be opened and washed with hot water or diesel fuel. Additionally, check the tension of the belt, chain, sprockets, axles, and shafts.

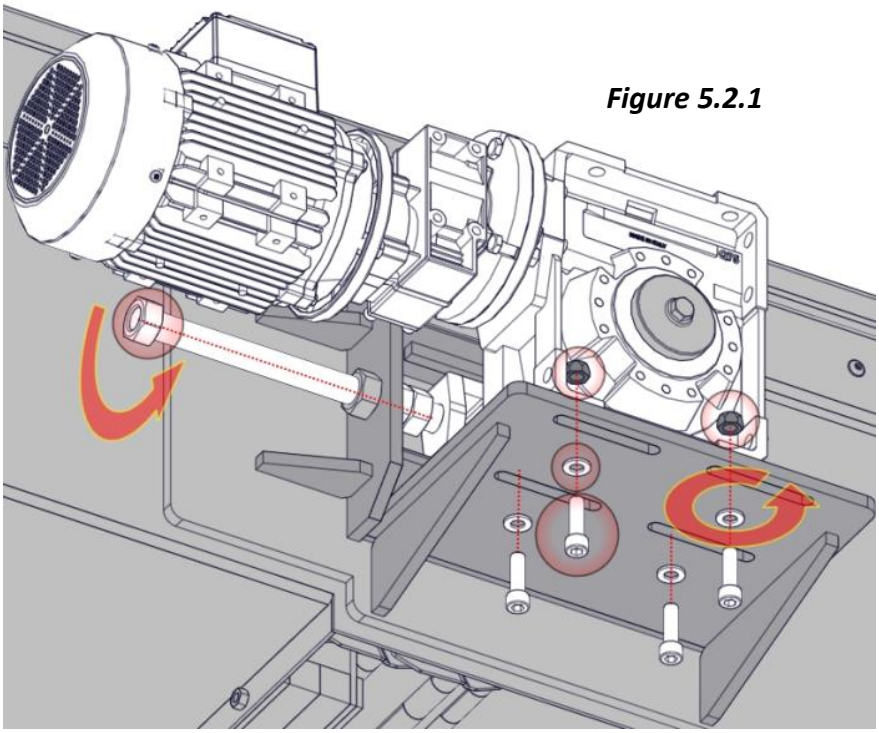
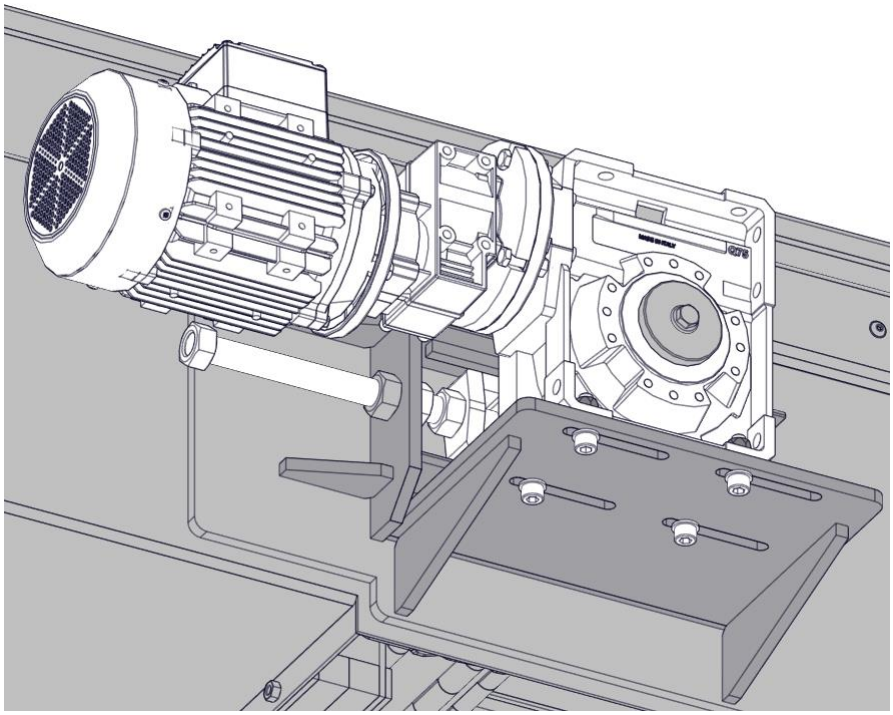


Figure 5.2.1

After checking the belt and chain tension, remove bolts numbered 1 that secure the cover containing the belt chain shaft and bearings if tensioning is needed (see Figure 5.2.1). Loosen the counter nut on the tensioning stud bolt numbered 2, then tighten the bolt to the desired tension. Finally, tighten the fixing bolts numbered 1 back into place.

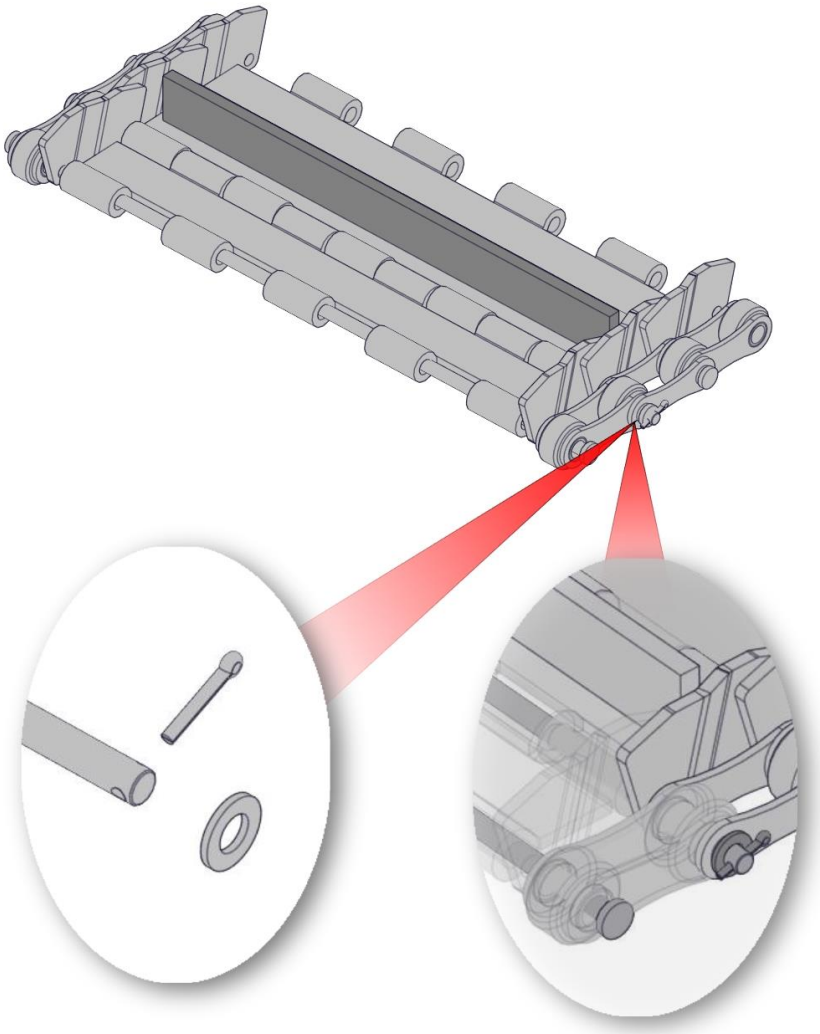
In case of wear, breakage, or splitting, be sure to notify and inform the manufacturer. Balance control should be performed when placing the conveyor under the bench. The machine should be prepared for operation by adding coolant.



5.2 Maintenance of the Belt

If materials are likely to fall into the conveyor, it should be stopped immediately. If the part cannot be removed without starting the conveyor, operate the conveyor in a controlled manner to ensure the part is removed from the belt.

- **If these operations do not yield results, the conveyor should not be operated any further, otherwise the belt will be damaged.**



In case of such negative situations, you can get help by watching the belt disassembly video on our website with the link below for belt disassembly.
https://www.youtube.com/watch?v=jbkzDkMoT40&feature=emb_logo

Otherwise, you can inform our company and request service.

6 About Malfunctions

6.1 General Explanations

The information contained in this booklet has been prepared based on experience gained as a result of service work and factory tests.
The symptoms and causes of the malfunctions are mentioned according to the notifications received by our service companies and the results encountered by the service technicians.
First of all, a detailed visual inspection of any problems is useful encountered.
Good monitoring of the fault prevents any unwanted damage that may occur during repair.

Firstly:

Check the electrical connections for looseness.
Check parts that may affected by short circuits or heat.
Despite trying the solutions specified in this book if the problem persists, please contact our company.

Having all kinds of troubleshooting, maintenance and repair works done by our company in terms of speed and safety is the best for your conveyor and your business.

Any action taken without knowledge may lead to wrong results, cause your business to stop unnecessarily or cause costly damages.