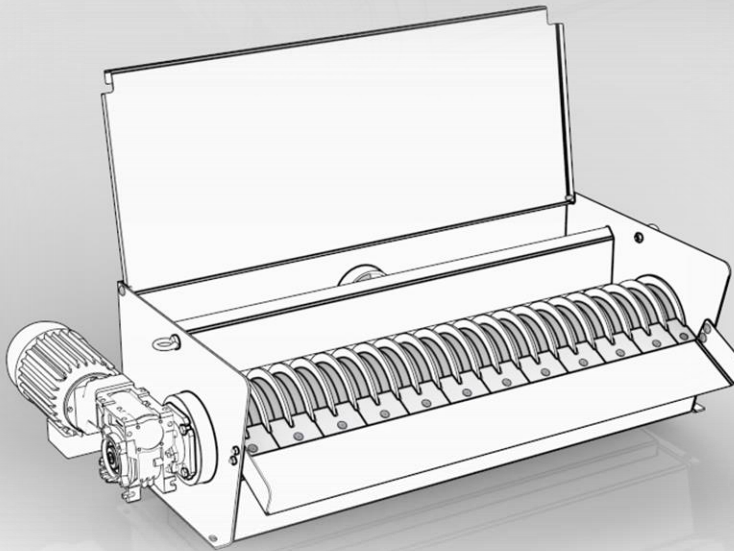
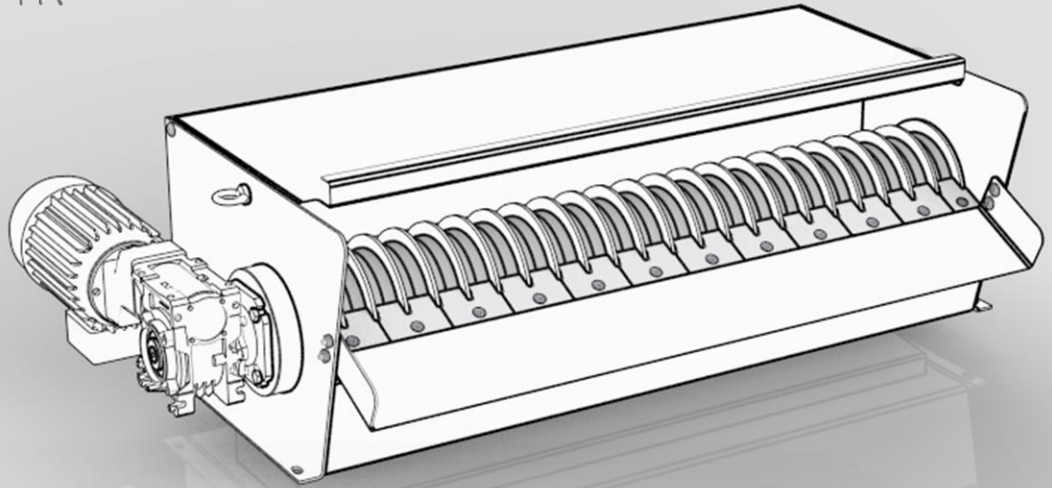


SARIGÖL[®]
conveyor systems

design & make it.



Magnetic Unit

User Manual

Health and Safety

This manual contains instructions for the daily operation of the user with the equipment.

This manual should always be accessible to the person or persons working with the equipment.

It is important to ensure that:

The manual and other valid documents are stored for the entire equipment service life.

The manual and other relevant documents are included as part of the equipment.

The manual is delivered to other users of the equipment.

The manual is updated when any additions or changes are made.

The manual describes the methods applied when using the equipment.

Safety Code

Please read the relevant sections of the instructions before using the equipment and carrying out maintenance or service.

Assume that all electrical equipment is live.

Assume all hoses and pipelines are under pressure.

When servicing and maintaining the equipment ensure that the electric supply is turned off.

The connection should be disconnected and the pressure in the pipes and hoses are released in a controlled manner.

Service and maintenance must be carried out by authorized service and maintenance staff only.

Only use spare parts approved by Sarigöl Konveyör Sistemleri.

Make sure that machine is securely mounted and installed according to the instructions before you start.

Use the machine only as intended.

In case of abnormal vibration or noise stop the machine and consult the manual.

Electrical installation should be done by a qualified electrician.

Cutting oils in tanks must be drained before any lifting operations are carried out.

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General Description

Magnetic fields possess strong pulling power, making these systems highly effective. When the liquid flow is stable and contains sufficient magnetic particles, even non-magnetic particles can be filtered out.

The advantages of magnetic filters include:

- High filtration efficiency due to strong magnetic fields
- Optimal filtration performance
- Capability to function independently
- Low wear, resulting in minimal maintenance
- Reduced energy consumption and investment costs

Magnetic units help reduce paper usage in band filter separators by removing particles from the coolant, making them ideal for pre-filtration applications.

1 General Description of the Machine and Safety

1.1 Introduction

Adhere to all safety and operational warnings outlined in this manual to minimize the risk of accidents and prolong the machine's lifespan.

Before assembling, operating, or maintaining the machine, ensure that all relevant personnel (e.g., operators, maintenance staff) have read and fully understood the manual. Unauthorized individuals, particularly those outside the workplace, must not interfere with the device, as this is hazardous.

Failure to follow the instructions, procedures, or safety warnings in the manual may lead to accidents, damage, or injuries.

1.2 General Warning

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



There are various caution and warning labels on the magnetic unit other than the company label containing machine information. These labels are placed to help the user determine the behavior styles when using the machine and performing maintenance, to introduce the risks that may occur, to warn people at risk. Do not remove the labels on the machine in any way.

Safety labels ensure your and your machines' operations are safe and healthy.

If one or more of the labels are removed or falls off for any reason please request from the manufacturer. Be sure to follow the warnings.

1.3 Electricity

The driver box is made according to protection class IP54. Driver power connection cables are protected by rubber-coated steel spiral. Thus the system is freed from external factors such as dust or water. It will prevent the spiral cables protecting the power cables from being cut or broken. Do not use worn or/and crushed cables, replace them.



While motors or geared motors are operating, live, bare (open plug / terminal box), moving or rotating parts pose a risk of life-threatening or serious injury. The documents must be followed. In the event of a malfunction, the machine must not be operated and technical support must not be received from the manufacturer!

General Description of the Machine and Safety

1.4 Driving System

The drive system of the machine; magnetic drum and discs are safely enclosed. Thus the working parts will not come into contact with the working parts. In addition, risks that may arise from machine rotating parts have been eliminated and users have been warned with the necessary caution and warning labels.

1.5 Tow Hitch

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



Keep a safe distance from the load during loading and unloading. Do not interfere except with authorized persons.

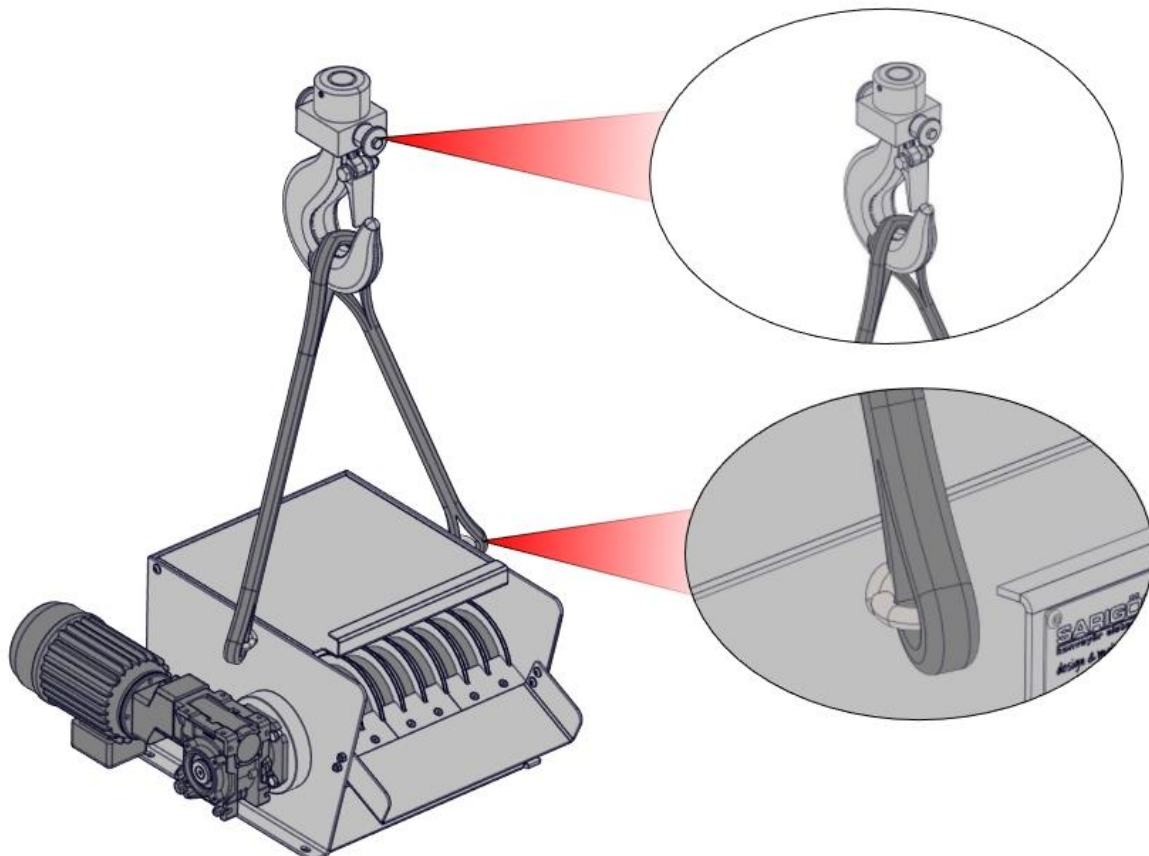


FIGURE 1.5.1

2 Magnetic Unit Description and Components

The magnetic unit is designed to separate ferromagnetic particles (such as iron, nickel, cobalt, etc.) from the coolant or cutting oil coming from the machine.

Magnetic units help reduce paper consumption in belt filter separators by filtering particles from the coolant, making them ideal for pre-filtration purposes.

The unit body typically consists of two main components: the magnetic drum section (where chips are filtered) and the frame section that surrounds the drum. The system collects ferromagnetic particles from the coolant or cutting oil on the rotating magnetic drum disks. The ferromagnetic chips that accumulate on the disk are scraped off using scraper blades, ensuring that fewer chips reach the filtration unit's paper below.

For safe operation, the cover on the magnetic unit must remain closed at all times during use.



2.1 Suitable Chip Types

Ferromagnetic materials such as nickel, cobalt, or iron powder.

SHORT

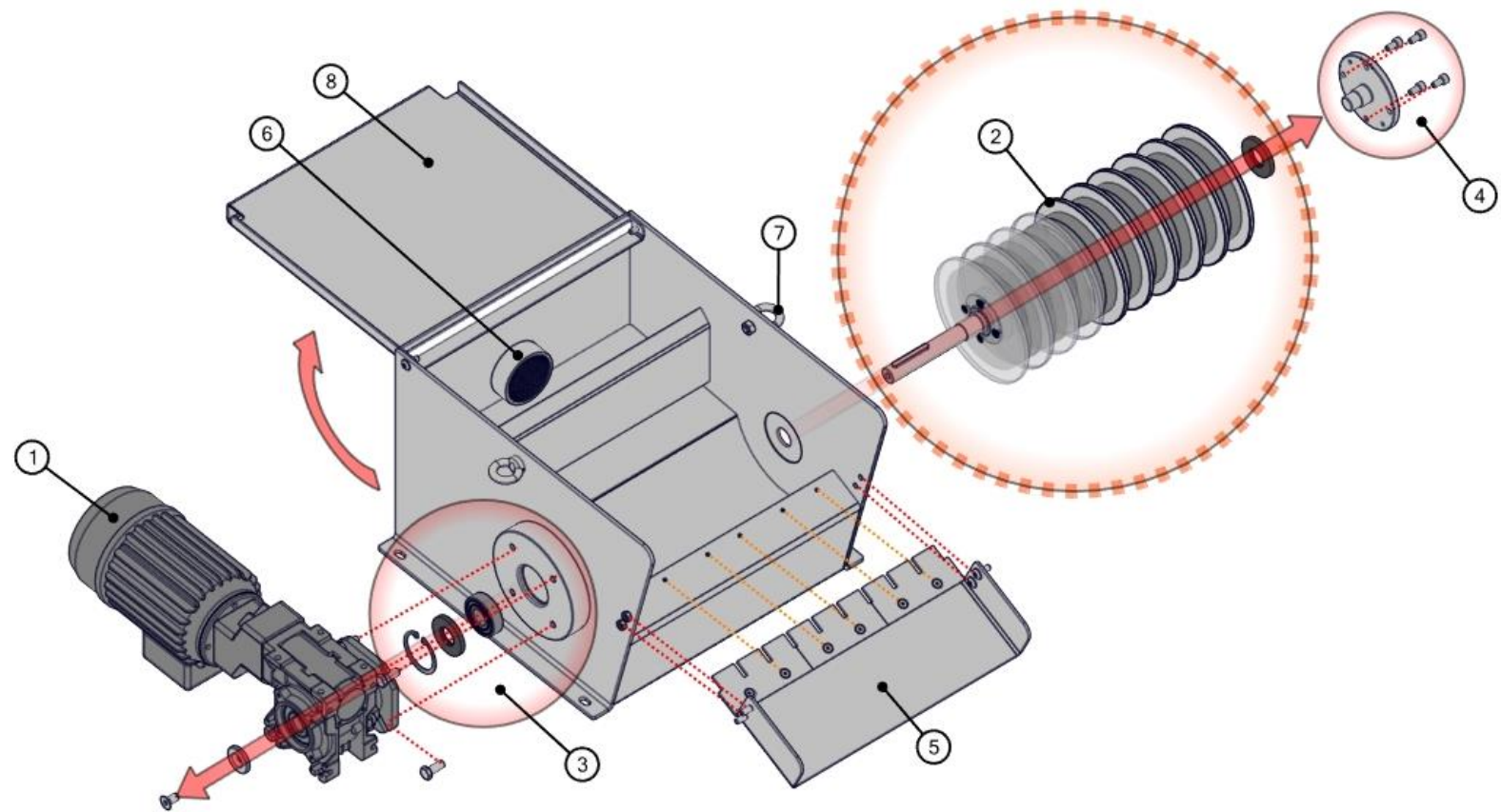


Do not touch the chip with bare hand.

Use personal protection.

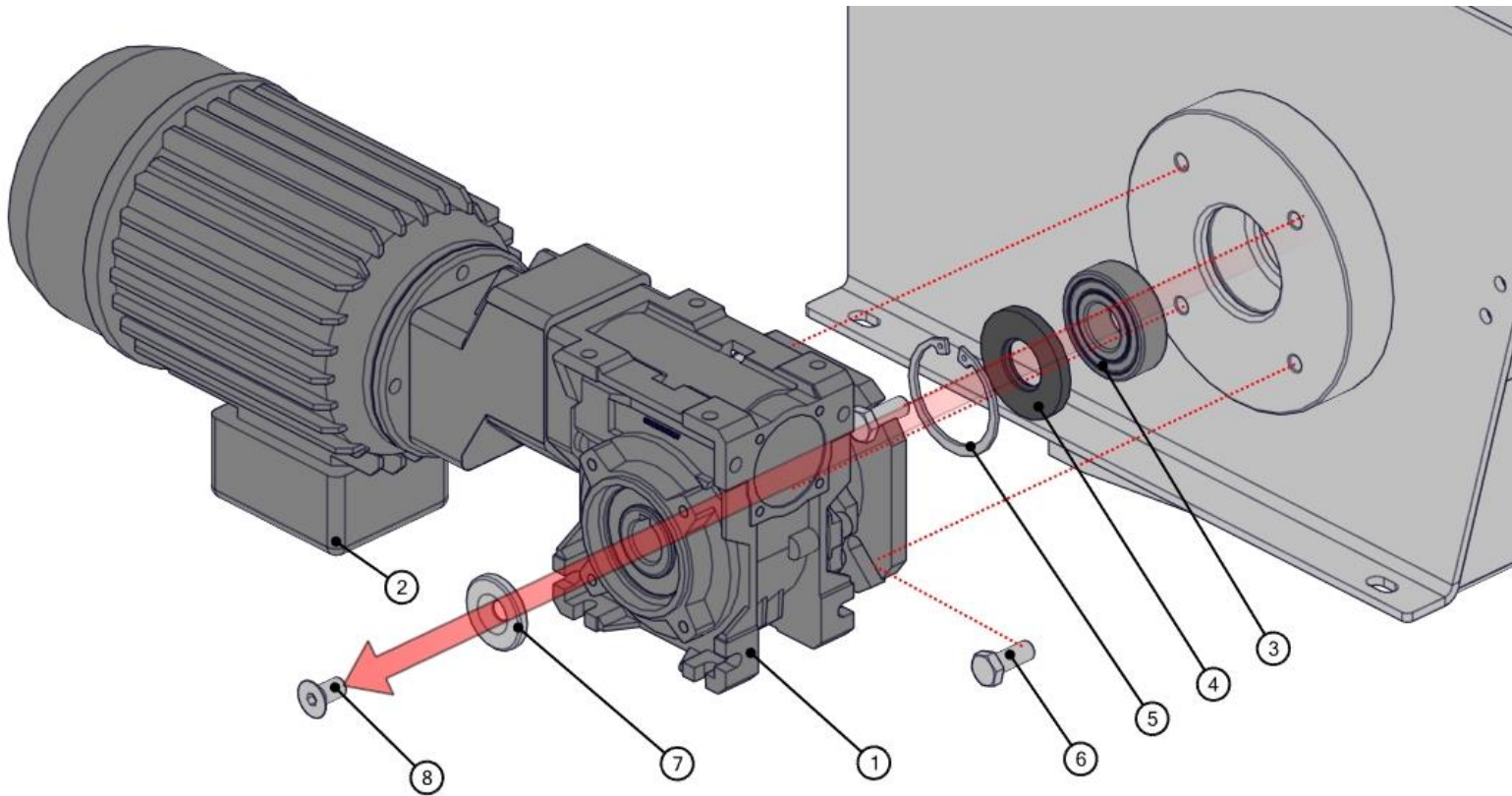


2.2 Magnetic Unit Component Groups



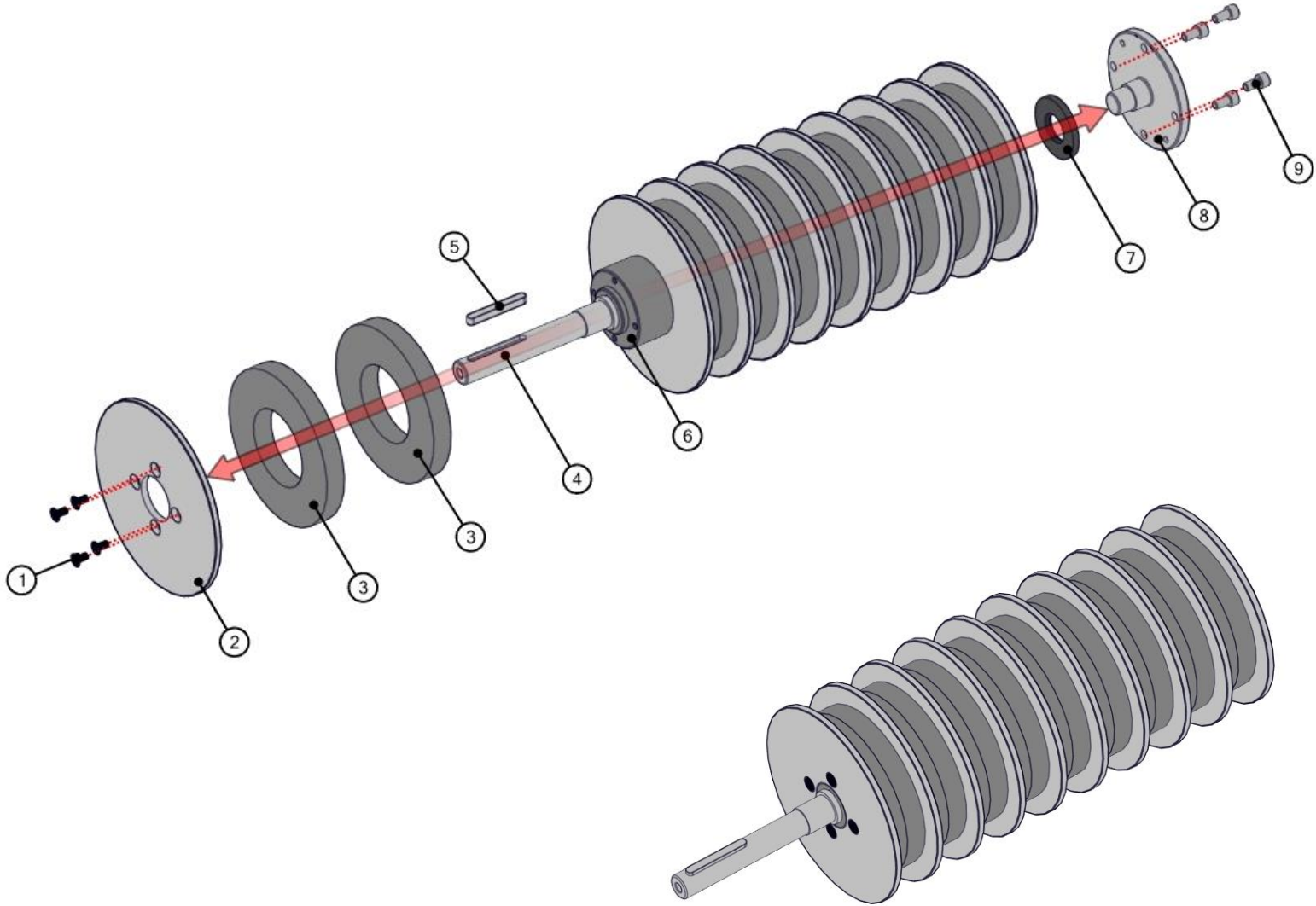
BALLOON NO	GROUPS
1	Impulsion Group
2	Magnetic Drum Group
3	Drive Bearing Group
4	Magnetic Drum Cover Flange Group
5	Chip Discharge Group
6	Dirty Liquid Inlet Group
7	Lifting Eyebolt Group
8	Upper Cover Group

2.2.1 Propulsion and Drive Bearing Group



BALLOON NO	ITEM NO	DESCRIPTION	QUANTITY
1	150-01-4319	REDUCER	1
2	150-01-0538	DRIVE SHAFT	1
3	150-01-1200	BEARING (6204 2RS)	1
4	150-01-3029	OIL SEAL BLACK (20x47x5 mm)	1
5	150-01-1073	DIN 472 47/2 INNER CIRCLIP	1
6	150-01-1224	FULLY THREADED WHITE HEXAGON HEAD BOLT, DIN933 (M8x20)	4
7	150-01-0326	SPECIAL MANUFACTURED WASHER (Outer Diameter: 32mm, Inner Diameter: 8mm, Thickness: 5mm)	1
8	150-01-0078	WHITE SOCKET COUNTERSUNK HEAD BOLT, DIN7991 (M8x16)	1

2.2.2 Magnetic Drum Group



BALON NO	PARÇA NO	SARIGÖL [®] conveyor systems design & make it.	QUANTITIY
1	150-01-2086	BOLT IMBUS COUNTERSUNK HEAD BLACK DIN7991 (M5X10)	8
2	150-01-0478	MAGNETIC SCRAPER DISC	2
3	150-01-1109	FERRITE MAGNET	18
4	150-01-0264	DRIVE SHAFT	1
5	150-01-1735	FLAT WEDGE DIN6885(6X6X50 mm)	1
6	150-01-0549	MAGNETIC ARRANGEMENT DRUM	1
7	150-01-3029	OIL SEAL BLACK (20x47x5 mm)	1
8	150-01-0547	DRUM COVER FLANGE	1
9	150-01-3054	BOLT IMBUS FULL TEETH WHITE DIN912 (M6x12)	4

3. INSTALLATION AND ASSEMBLY

3.1 Magnetic Unit Installation and Connections

If the magnetic unit is being transported to the installation area using a forklift, the forklift should lift the unit by positioning its blades under the euro pallet at the base. For crane transport, the unit is lifted and moved by securing it with ropes attached to the lifting eyes.

Once the magnetic unit is brought to the designated area, it should be bolted into place using the holes at the base. After positioning, connect the unit to the power supply by plugging it into the motor. Ensure that the magnetic drum rotates in the direction of the scraper for proper operation.



A grounding line must be installed in the working area of the unit, and energy should never be supplied without proper grounding. Grounding faults can lead to accidents and injuries. Always use the standard yellow-green cable for grounding and never substitute it with a cable of a different color.

Inspect all electrical connections and motor current, as loose connections pose a safety hazard.

Additionally, verify the machine's working direction and ensure it is not operating in reverse.

3.2 Elektrik pano Electrical Panel

Our magnetic separator models are designed to operate with remote control through inverters (AC speed control devices), as illustrated in Figure 3.2.1 and Figure 3.2.2. These inverters are specifically designed and manufactured in accordance with Sarigöl Standards.

Note: Only valid for products with panels!

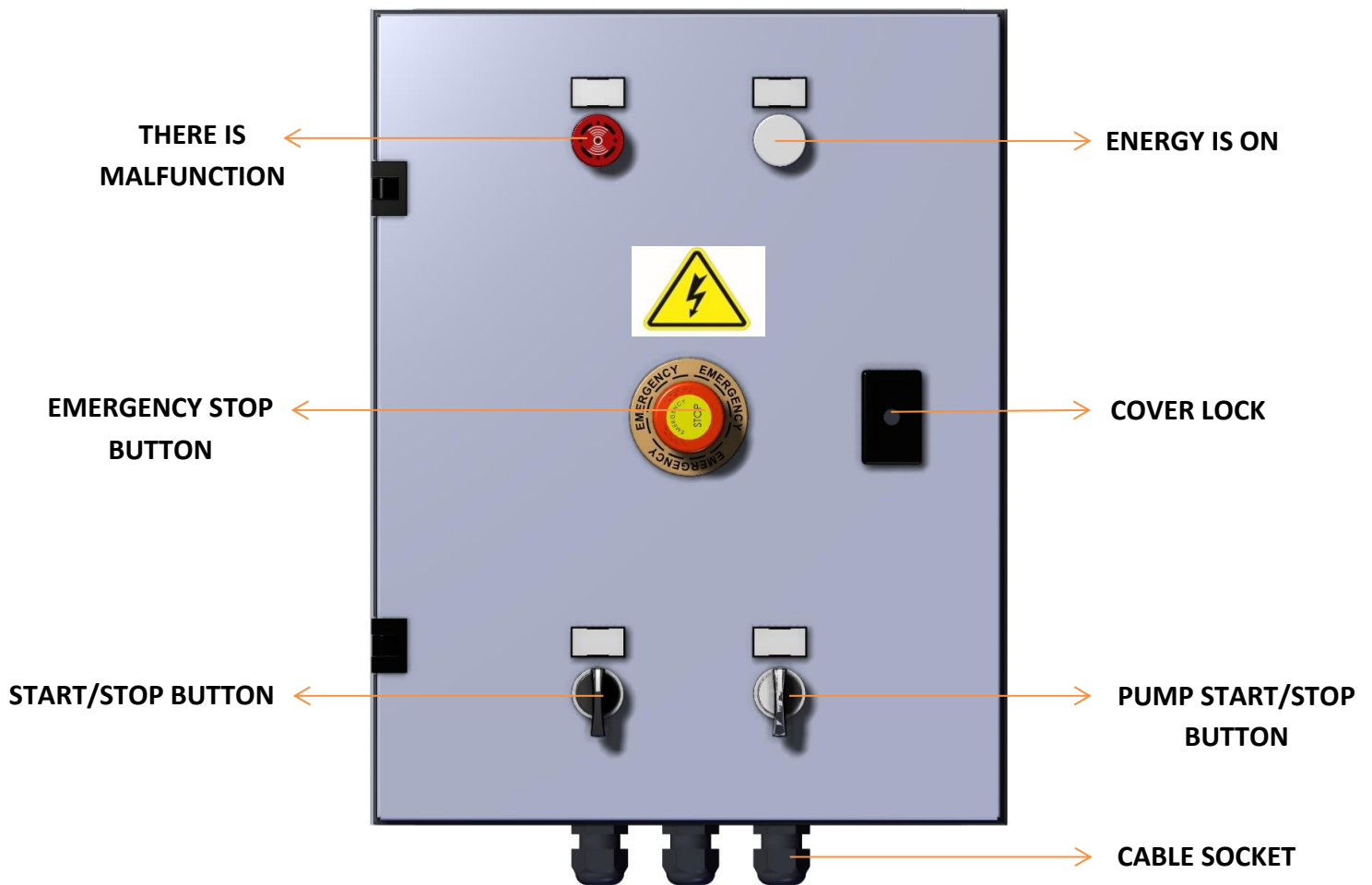


Figure 3.2.1

4. OPERATING

General

The magnetic unit is typically positioned on the separator and tank groups. It is controlled via the control panel located on the separator or tank. A driver and/or control panel is installed, equipped with the necessary components to operate the magnetic unit and monitor its performance easily.

In case of any motor or pump malfunction during separator operation, the magnetic unit will also stop automatically!

4.1 BEFORE COMMISSIONING

1. Verify the power supply voltage matches the panel's operating voltage and frequency as indicated on the electrical label.
2. Check the grounding connection for proper installation.
3. Inspect the motor, pumps, control switch, and sensor connections on the filtration system to ensure everything is properly connected and functioning.

4.2 WHILE OPERATING

1. Power is supplied by switching the main switch to the ON position.
2. Emergency stop is checked.
3. Operating mode is selected.

(with start from the machine or manual local control)

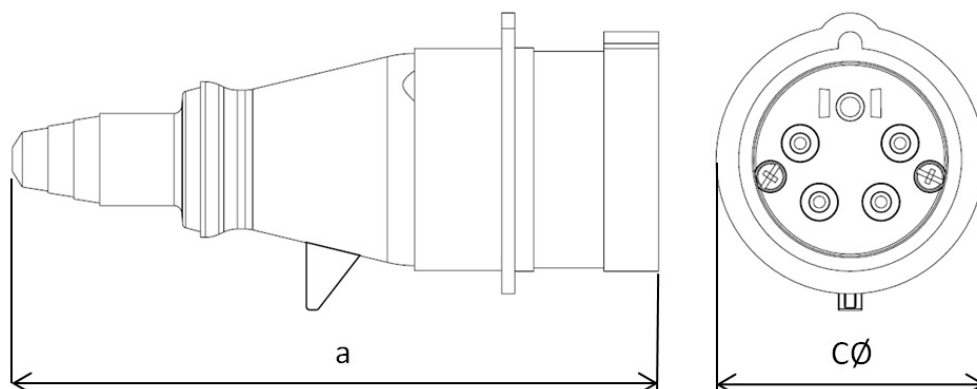


If the machine does not operate despite all interventions, maintenance, and cleaning efforts, no further action should be taken. **Avoid forcing the machine with repeated attempts, and immediately seek technical support from the manufacturer.**

- **It is crucial that only authorized operators and/or electricians are allowed to access the control panel, as unauthorized intervention poses life-threatening risks.**

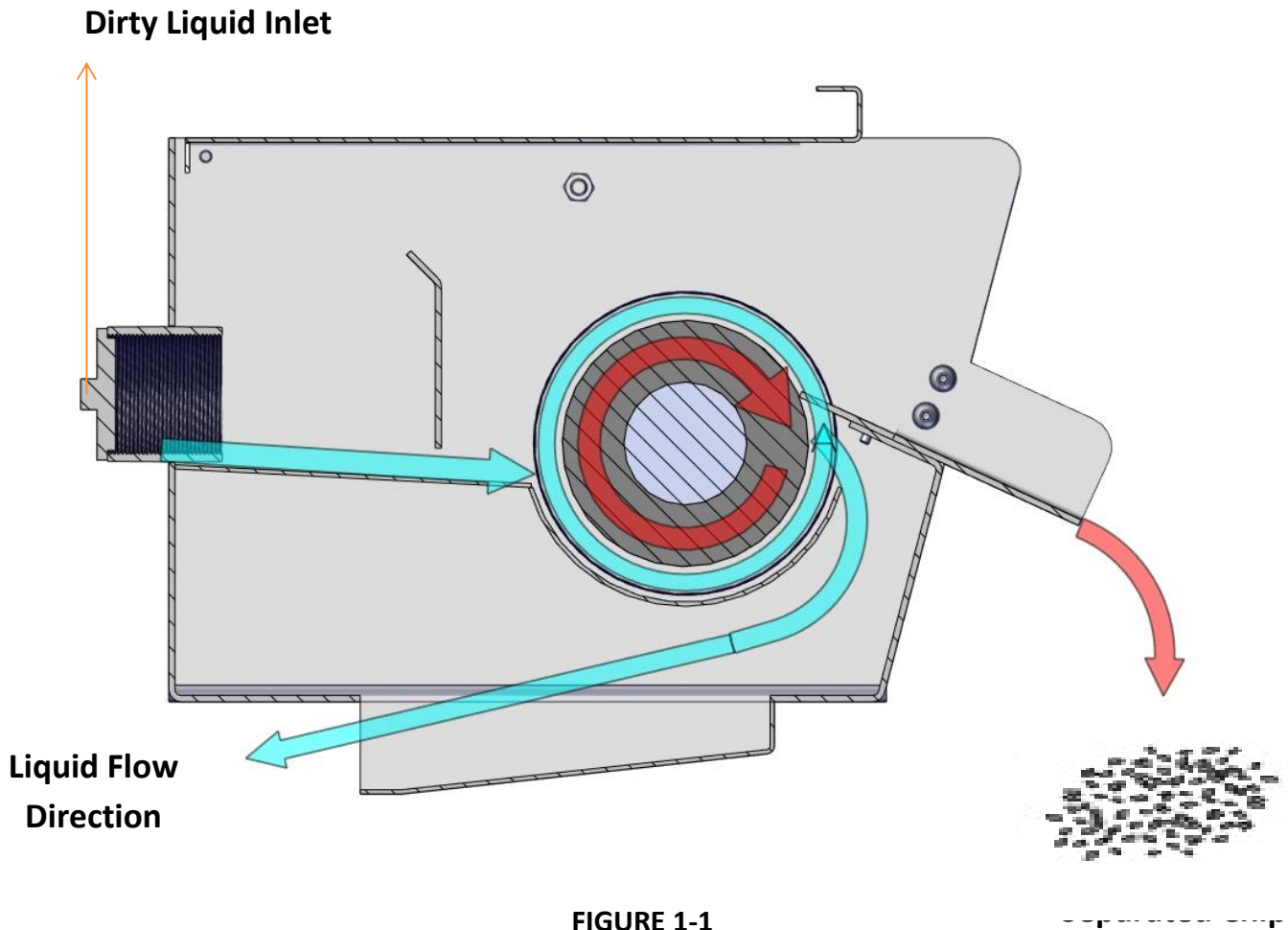
Based on the machine's status and the customer's request, the three-phase plug or military socket for the driver energy supply is provided pre-assembled by the manufacturer.

Note: Only valid for products with military sockets! (5x16 straight plug)



4.3 Magnetic Unit Operation Mode Direction

It is suggested to operate the magnetic unit continuously for one shift. The separator must be allowed to clean all the chips in the direction indicated in Figure 1-1.



5. MAINTENANCE

5.1 Weekly Maintenance

- Check bolt connections.
- Elektrik motorunun elektrik ve civata bağlantıları kontrol edilmelidir.
- Electrical and bolt connections of the electric motor should be checked.

5.2 Monthly Maintenance

Monthly maintenance of the magnetic unit should be carried out routinely.



- Check the magnetic scrapers.
- If any magnets are damaged or broken, replace them with guidance from the manufacturer.
- Clean dust and chips from between the scraper blades using a cloth. Ensure the power to the unit is turned off before doing this.
- Notify and inform the manufacturer immediately in case of wear, breakage, or detachment.
- Alternatively, you can request service by contacting our company.

5.3 Troubleshooting



WARNING!

The unit must be shut down and electrically isolated before performing any corrective action. Electrical maintenance and repairs should be carried out by qualified personnel.

Problem	Possible Reasons	What needs to be done
5.4.1 Manyetik ünite çalışmıyor Magnetic unit is not operating	There may be no mains electricity There may be a motor thermal fault The drive shaft may be worn out.	Is there power? Check. Check the drive shaft.
5.4.2 There is a sound in the drive group	The balls in the bearing in the drive bearing assembly may be dispersed	Replace the bearing.
5.4.3 There is a liquid leak	The felts may be worn	Replace the felts.
5.4.4 There is a noise coming from the top cover	Fluid pressure may be too high	Check the fluid pressure.

6 About Malfunctions

6.1 General Explanations

The information in this booklet is based on experience gained from service work and factory tests. It includes details on symptoms and causes of malfunctions as reported by our service companies and observed by our technicians.

For any encountered problem, begin with a detailed visual inspection. Proper monitoring of faults can help prevent unwanted damage during repairs.

First Steps:

1. Check electrical connections for looseness.
2. Inspect parts that may be affected by short circuits or heat.

If the issue persists despite following the solutions in this booklet, please contact our company.

Entrusting all troubleshooting, maintenance, and repair work to our company ensures the best results for your conveyor and business in terms of speed and safety. Uninformed actions may lead to incorrect results, unnecessary downtime, or costly damages.



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