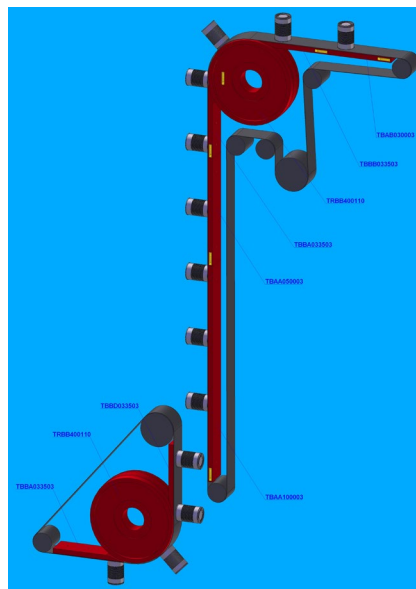
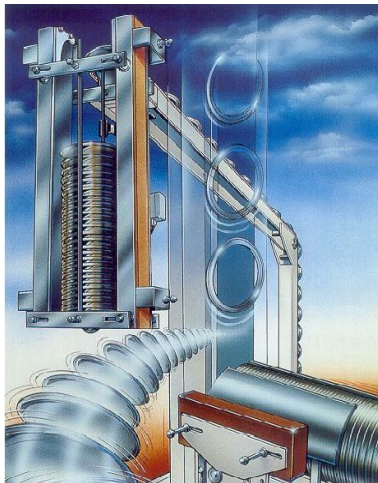


User Manual

Magnetic conveyor, Series TCMO...

☺ Suited for transportation of ferromagnetic plates / lids / nails, etc.



*The descriptions and pictures in this manual, used for explanation, may differ from your execution.
We have enclosed the as-built drawing of the delivered article.*

GOUDSMIT Magnetic Systems B.V.

P.O. Box 18
Petunialaan 19
The Netherlands
Tel.
Internet
E-mail

5580 AA Waalre
5582 HA Waalre

(+31) (0)40 2213283
www.goudsmitmagnets.com
info@goudsmitmagnets.com



Versions overview of standard manual

Version	Date	Description
1.0	12-2008	First version of the English version of the user manual, derived of the German version 2.2.
2.0	10-2009	- Specifications sheet and Declaration by the manufacturer deleted from user manual - Can and lid conveyor both in manual
2.1	02-2010	Nail conveyor added to manual

Introduction

Read this manual and make sure that you fully understand its contents before commissioning and operating the machine.

If you have any queries or require further explanation regarding any subject related to the machine, please do not hesitate to contact **GOUDSMIT Magnetic Systems B.V.**

All technical information contained in this manual, together with any relevant drawings and technical descriptions we supply, remain our property. It may not be duplicated or disclosed without our prior written permission.

The user manual can be ordered together with the device description and/or the article number as well as the order number (ORxxxxxx).

- This manual and the declaration by the manufacturer are part of the machine.
- They must remain with the machine, even if it is sold.
- The manual must be made available to all operators, service technicians, and others who work with the machine throughout its life cycle.

List of contents

Versions overview of standard manual	2
Introduction.....	3
List of contents	4
General.....	5
Ferromagnetism.....	5
Conditions of supply and guarantee	6
Delivery	7
<i>General</i>	<i>7</i>
<i>Identification plate.....</i>	<i>7</i>
Safety.....	8
General	8
Danger of magnetic field.....	9
Danger of being caught by moving parts.....	10
Danger of high voltage	10
Device description	11
Intended use / user indications	11
Working principle	12
<i>Lid Conveyor & Can Conveyor</i>	<i>12</i>
<i>Nail inclining conveyors.....</i>	<i>13</i>
Installation	14
Placing, transporting or moving the magnet.....	14
Construction parts	14
Conveyor belt	14
Electrical connections general	15
<i>Electrical motor installation (only if applicable).....</i>	<i>15</i>
Gasket material / grounding.....	15
Start-up	16
Checks before and during start-up.....	16
Maintenance	17
Bearing systems with open, greased bearings.....	18
<i>Greasing (relubrication).....</i>	<i>18</i>
Conveyor belt.....	20
<i>Belt alignment</i>	<i>20</i>
<i>Belt tension</i>	<i>21</i>
<i>Exchange of conveyor belt</i>	<i>21</i>
Malfunctions/Service	22
Spare parts.....	23
Storage and Dismantling	24

General

This user manual contains information for the correct operation and maintenance of your device. It also contains instructions for avoiding possible injury and serious damage and it allows a safe and as trouble-free functioning of the product as possible. Read this manual thoroughly before putting the device into operation, familiarise yourself with the operation and control of the device and follow all instructions precisely.

- *The data published in this instruction manual is based on the available information at the time of delivery. This is issued subject to later amendment.*
- *We retain the right to amend or modify the construction and/or model of our products at any time whatsoever without any obligation to modify any previously supplied products accordingly.*

Ferromagnetism

The working principle of the device rests on (Ferro)magnetism.

Ferromagnetism is the basic mechanism by which certain materials such as iron cobalt and nickel can get magnetized when exposed to an externally applied magnetic field. Materials that remain magnetized after the external magnetic field is removed, are called permanent magnets. Most magnetic materials lose their magnetism after the external magnetic field is removed. Most alloys of iron, cobalt and nickel are magnetic. However, some stainless steel alloys like AISI304 or AISI316 are only slightly magnetic.

Because in most cases it will be Fe parts that will be Ferro-magnetically influenced, we will use the term 'Fe' in this user manual when we mean ferromagnetic material

Conditions of supply and guarantee

The conditions of supply are the “**General Conditions for the supply and erection of mechanical, electrical and electronic products**” (SE01), published by *Orgalime*, in Brussels.

These conditions can also- if desired – be requested by writing to Goudsmit Magnetic Systems B.V., as also mentioned in our written quotation.

The guarantee prescriptions are mentioned in these conditions

The guarantee on your equipment will be void if:

- Service and maintenance are not performed in accordance with the instruction manual or by servicemen who are not especially trained to do the work. We strongly recommend that specific magnetic service and maintenance be carried out by Goudsmit personnel).
- Modifications are made to the equipment without our prior written permission.
- Non-original parts or non 100% exchangeable parts are used.
- Lubrication products other than those prescribed are used.
- The equipment is used injudiciously, incorrectly, negligently or not in accordance with its intent and/or purpose (see chapter “Intended use / user instructions”).

All parts that are subject to wear are excluded from the guarantee.

Remaining remarks / warnings

- Use the device only for the application for which it has been designed (see chapter “*Intended use / user instructions*”).
- Use the device only when it is in technically perfect condition, and ensure that all protective hoods or inspection covers, including all safety circuits, have been fitted and installed in the correct manner.
- Ensure that device maintenance is appropriate and in accordance with the instructions provided in this user manual.
- Any eventual faults, in particular those that may influence safety, should be attended to immediately and remedied before renewed operation. Should you, after estimating the risks of an unsolved fault, still think it is safe to keep the device into operation, then warn the operators and maintenance staff of these faults and the danger(s) caused by these faults.

Delivery

General

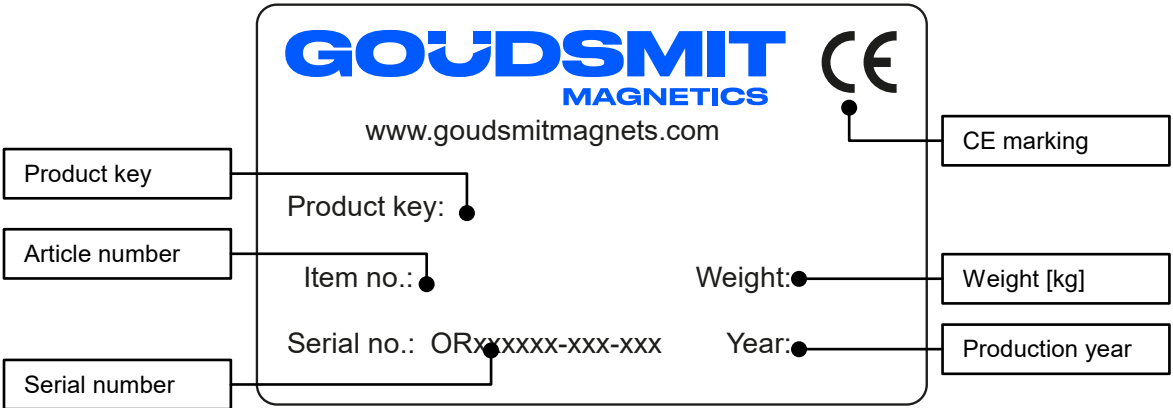
Check the shipment immediately on delivery for:

- Possible damage and/or shortcomings as a result of transport. If so, ask the transporter to draw up a transport damage report.
- Completeness of the delivery/deliveries, the absence of anything (additionally) ordered.

Always immediately contact **GOUDSMIT magnetic systems** in the event of any damage and/or mistaken delivery.

Identification plate

On the device you will find an identification plate as pictured below. **Information on this plate is of great importance in case of service.** That is why we advise to maintain this plate on the device at all times. Ensure that it is always legible by cleaning regularly.



Don't forget to make note of the Serial number and Article number in case of breakdown(s) and or delivery of spare parts.

Safety

Regularly check that all warning pictograms are still present and legible, and clean if necessary. Make sure that new pictograms are applied at their correct locations if they have been lost or damaged.

General

The device is provided with safeguards where necessary. Make sure every person who comes in contact with the device, wears adequate personal protection (overalls, safety glasses, hearing protectors, helmet, steel-toed safety shoes etc.).

Areas of the device considered dangerous are marked with warning pictograms.

If the device remains easily accessible to persons, then extra safety precautions (e.g. fencing) must be installed. When safeguards are not possible, make sure clear instructions are given to people using the device.

Danger of magnetic field

The magnets generate a powerful magnetic field that strongly attracts ferromagnetic (Fe) materials. Always take into account that these materials may suddenly be very powerfully drawn towards the magnet. Make use of non-magnetic tools and workbenches fitted with a wooden worktop and preferably a non-Fe frame (for instance stainless steel).



Always be aware that Ferromagnetic parts will be attracted if you are closer than 0.3 meter to a magnet.



Danger - strong magnetic field!



People fitted with pacemakers should on no account enter the magnetic field (within a radius of at least 1 meter).



Prohibited for people with pacemakers!



Do not bring ferromagnetic objects, e.g. tools, watches, jewellery within a distance of 0,25 meter from the device. Sudden traction could result in injury and or the magnetic field could result in damage to sensitive devices.



Attraction and projectile risk!

*ferromagnetic: see page 5 Chapter [General/Ferromagnetism](#)

Danger of being caught by moving parts

Certain parts of the Magnetic Timing Belt Conveyor cannot be fully safeguarded because of their function. For instance the timing belt, that runs over several rollers. Though we safeguarded them as good as possible, not all openings can be completely safeguarded. This means that we did not make this device 100% safe!



Under no circumstances should you stick your hands between the rollers or belt of the Magnetic Timing Belt Conveyor and its housing parts while belt is running.



Danger - being caught by moving parts

Danger of high voltage

When installing and electrically connecting the device, make sure the activities are performed by qualified personnel.



Switch off the electrical power supply before performing activities to the device!



Danger – Risk of an electric shock!

Always use the main power switch (on the control box) to switch off the installation in the event of a dangerous situation.

Do not restore power until the dangerous situation has been resolved!

Device description**Intended use / user indications****Intended use**

The magnetic conveyor line is intended for transporting sufficient ferromagnetic* products, like steel or iron sheets, lids, empty cans, filled cans, etc. Dimensions, capacity and transporting speed are mentioned in the order, the added data sheet and or on the added drawings.

Temperatures

Suited for outside temperatures of -20 °C to +40 °C and product temperatures up to xxx °C, dependant of the used magnet material. See specifications overview for exact values.

The magnet is to be protected against higher temperatures than prescribed, because the magnet might **lose magnetic force permanently** when exposed to high temperatures

Free space

Make sure that there is enough free space around the device to perform and ease the inspection and maintenance operation.

Noise level

The noise level of the device is less than 70 dB at delivery. Should it become higher, then the device has to be checked on failures immediately.

Vibrations

The magnets are to be protected against strong vibrations, because they might **lose magnetic force permanently** and or the brittle ceramic magnet material might break.

The vibrations caused by the magnetic conveyor can be caught up by the frame or other mounting system. These vibrations have to be damped out further by the ground. If the vibrations caused by the installation should rise in time, then the device has to be checked on failures immediately.

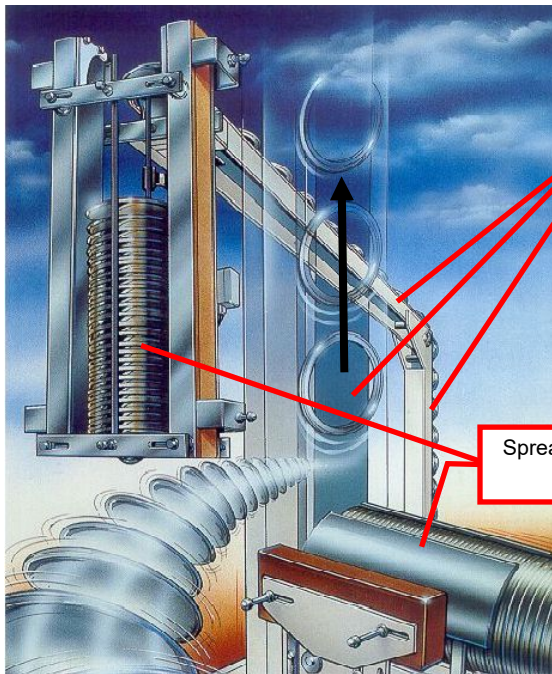
Cleaning

Regular cleaning of the device is advised, while magnets attract ferromagnetic particles and dust and the problems that can be caused by that: Therefore always clean more often than thought necessary. See also chapter **Maintenance**

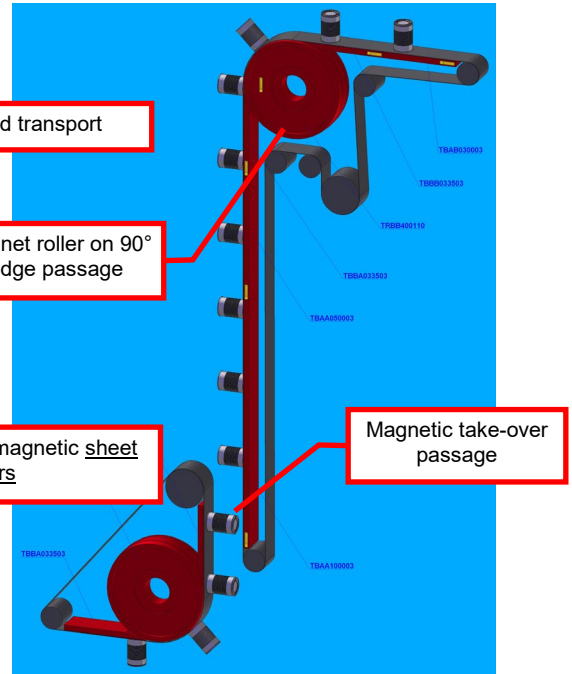
*ferromagnetic: see chapter GENERAL/**Ferromagnetism**

Working principle

Lid Conveyor & Can Conveyor



Drawing: magnetic lid conveyor installation



Drawing: magnetic can conveyor installation

The magnetic belt conveyors for lids and cans work as follows:

Under a (thin) stainless steel slide plate, magnet plates are mounted. A thin belt moves over the SS plate, so also over the magnet plates underneath. The transported ferromagnetic plates, lids, cans or other products will be pulled tightly onto the belt by the magnet plates. At the beginning and end of the belt and at passages, the magnetic field is 'weakened' to be sure that the product will be smoothly taken over or loosened.

The magnetic power of the permanent magnets underneath the timing belt will "suck" the ferromagnetic product onto the timing belt, which will make sure that:

- it can be transported horizontal, under an edge or vertical, staying positioned exactly.
- it can be better processed during transport.

Sheet separators can force magnetic separation of supplied stacks with sheets or lids. Because the sheets or lids get magnetised equally North or South, they will be magnetically 'pushed' away from each other, even when they are oiled or metallically stick to one another. The sheet separators will make sure that the sheets or lids will come on the belt in single order, assuring that no damage can be done by double sheets or lids.

The magnetic force stays constant over thousands of years when not opposed to high temperatures and or (too) severe vibrations. See below:

Nail inclining conveyors

For transport during manufacturing and packaging of ferromagnetic nails, bolts and other fastening means, or other ferromagnetic metal parts.

Magnetic inclining conveyors can transport products to almost perpendicularly, as a result of which the line will remain compact. By default, these inclining conveyors are supplied with a ... mm width and a variable length. The drive mechanism consists of a SEW motor reductor that can be controlled at one's own discretion by means of a frequency control



Drawing: magnetic lid conveyor installation

Installation

Placing, transporting or moving the magnet

- Use sound ratchets and or raise with a sound lifting device for lifting the unit / installation. Make sure to use protection corners between the ratchets and the unit to prevent damage to the paint and or other device parts.
- Use only lifting/hoisting and transport equipment that is in good condition and never exceed the safe working load of the equipment being used. Make sure to protect painted surfaces from getting damaged.
- The weight of the device is stated on the *identification plate / sticker*.
- Take the position of the centre of gravity into account. This is probably *not* in the middle / centre of the installation, caused by the magnet roller(s) and or motor(s).
- Work safely, ensure sufficient working space and use stable and reliable scaffolding, ladders and other auxiliary equipment to ensure that the device can be installed without risk.
- Make sure no persons are under the device / installation during transport.
- All auxiliary equipment used for transport purposes, must be dismantled and removed before putting the device into operation.

Construction parts

Do not use ferromagnetic materials for rollers and/or construction parts of your system within the magnet field of the magnetic conveyor unit. These parts can get magnetised and as a consequence influence the magnetic conveying negatively. This is also true for constructions that one makes for discharging the separated parts.

Use - for instance - stainless steel, aluminium or wood.

Conveyor belt

The devices / installations from Goudsmit magnetic systems B.V. are delivered with the conveyor belt aligned and correctly adjusted belt tensions whilst no product is on. Always check them before operating the device whilst product is on!

Why check belt alignment and belt tension?

- If belt tension is too high extra stress is placed on the belt, the axle journals and the bearings in the driving and other rollers, increasing the risk of a belt or axle break, or bearing wear.
- A non-aligned belt can get damaged and can cause extra wear to roller and product

In the chapter **MAINTENANCE** we describe how belt alignment and belt tension should be and how to change them if necessary

When an electro motor is in delivery

Electrical connections general

Make sure that the electrical power supply is switched off while you work on the device.

Make sure that all electrical connections are made by qualified personnel and conform to all the applicable standards. Check that the device is suitable for connection.

Check all connections regularly!

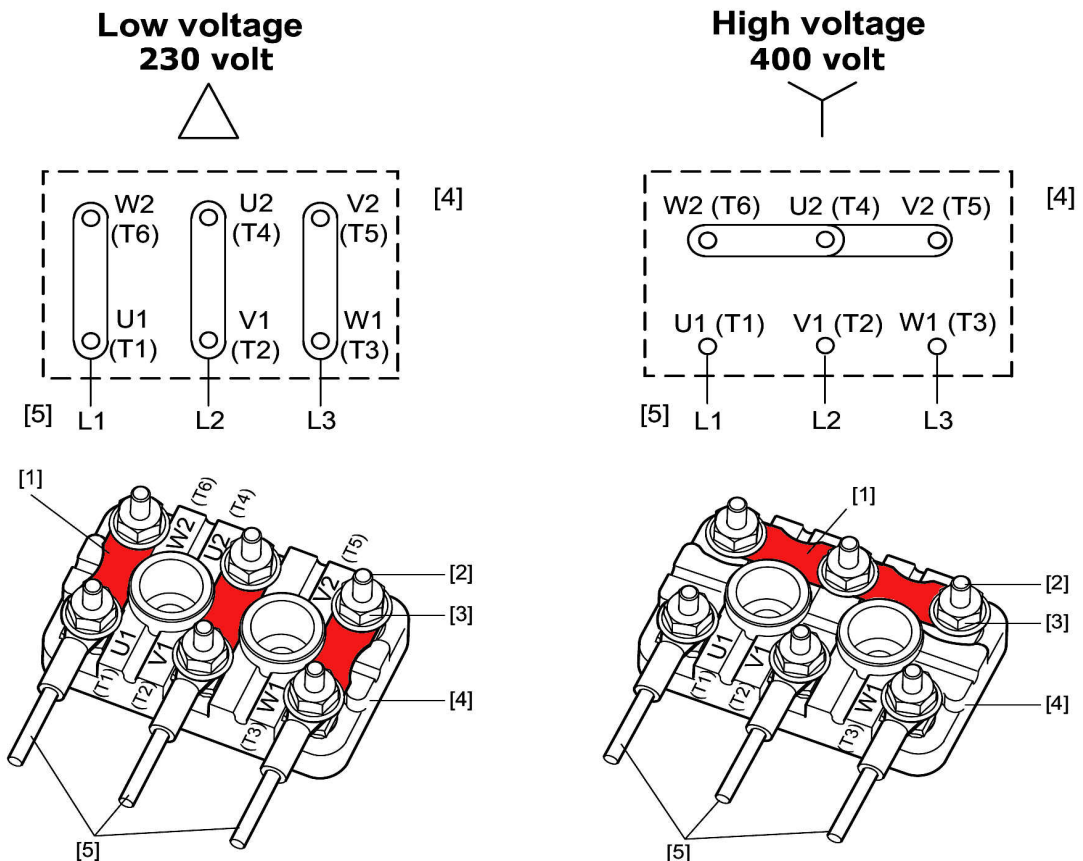
Electrical motor installation (only if applicable)

Check that the rotation direction of the driving motor is correct:

This can be checked by briefly switching the motor ON.

If the direction of rotation is incorrect, reverse 2 of 3 phases (U - V):

(It makes no difference whether you have a **Y** or a **Δ** circuit!)



Gasket material / grounding

To prevent the build-up of static electricity, make sure there is metal bridge between the magnetic device / product channel and the installation. The completed installation must also be grounded.

Start-up**Checks before and during start-up****During start-up, it is essential to follow the safety notes in this user manual!****Before start-up, make sure that:**

- The device or the installation has no damages or malfunctions.
- All connections (electrical, mechanical, pneumatically) have been made properly.
- The device or the installation is placed and located correctly.
- All protective covers (if applied) have been fitted correctly.
- All foreign (iron) objects larger than 10mm are blocked from entering the production channel.
- The device is thoroughly cleaned, internally and externally.
- The product does not fall into the magnet device, from a greater height than 10 meters.
- That the entire installation, including the magnet tubes, is grounded.
- There are no other sources of danger.

During operation, make sure that:

- The device or the installation has no damages or malfunctions.
- The motor is running correctly (no overload, no speed fluctuation, no loud noises, etc.).
- The motor rotates in the correct/wanted direction.

Maintenance

Magnetic systems attract Ferromagnetic particles. Regular cleaning is essential.
A clean magnet functions considerably better

All parts are best cleaned with pressurized air and/or a soft cloth. It's also possible to deep clean with special cleaning fluids that do not harm the material. Ensure that these fluids do not contaminate the product

Regularly check that all warning pictograms and the identification plate are present at the correct locations on the device. If warning pictograms or the identification plate should get lost or damaged, immediately apply new ones to the original locations.

Always inform operating personnel regarding planned inspections, maintenance, repairs or if attending to breakdowns.

Bearing systems with open, greased bearings



Regularly check whether the bearings make more noise than usual or whether they are warmer than normal. If this is the case, find out what the cause is and solve the problem(s). After that, it might be necessary to replace the grease and/or to replace the bearing(s).



For bearing **replacement intervals**, combine own experience data of bearings in similar applications with the recommended and/or estimated interval periods, as indicated in the maintenance tables and/or formulas of the bearing manufacturer.

Greasing (relubrication)



The bearing systems applied by **GOUDSMIT magnetic systems** all contain **grease-lubricated bearings**, which are properly sealed against dirt and humidity. They, however, basically still need maintenance, for example when the bearings are used in dirty and/or humid environments and/or at high temperatures and/or when they have a longer operating life than the operating life of the grease. The way and frequency of replacing bearing grease (relubrication) depends on the application and the employed grease (higher-quality grease requires less frequent maintenance). It is desirable to use grease that is equal to the originally filled. Different greases should not be mixed because it can cause a poor lubrication performance.

When **relubricating**, completely replace the old grease by fresh grease at a moment that the state of the grease still is sufficient. Preferably supply the grease during operation, in order to avoid excessive greasing level. Inject the fresh grease from the grease supply fitting.

Continuous lubrication is only recommended at low revolutions and/or when the calculated greasing interval is very short and/or other greasing methods do not comply and/or access to the bearing is very difficult.

Table below provides a **general indication for greasing (relubrication) intervals**. For more precise greasing intervals, combine experience data of bearings in similar applications with the recommended and/or estimated interval periods, as indicated in the maintenance tables and/or formulas of the bearing manufacturer.

Table: General indication of greasing intervals

Operating temperature of bearing	General indication of greasing interval			
	Environmental condition			
°C	°F	Clean	Dirty	Very dirty / Heavily humid
50	122	3 years	6 months	3 months
70	158	1 year	2 months	1 month
100	212	3 months	2 weeks	1 week
120	248	6 weeks	1 week	3 days
150	302	2 weeks	3 days	Daily



Consult the (maintenance) manual from the bearing manufacturer for more specific maintenance instructions, like greases to be used and grease replacement intervals.

When a motor reductor is mounted:

Motor reductor

De-energise the motor and make sure it cannot be switched back on without your knowledge.
Wait until it has cooled down – **DANGER FOR BURNING!**

Regularly check if the motor produces more noise than normal, or if it generates more heat than normal. If that is the case, find out what the cause is and solve the problem(s) as soon as possible to prevent (further) damage.

In the table below, general inspection and maintenance intervals are shown as an indication of the inspection and maintenance that is needed.

REDUCTOR	
Frequency	What to do?
<ul style="list-style-type: none"> Every 3000 machine hours, at least every 6 months. 	<ul style="list-style-type: none"> Check oil and oil level. Check the seals visually for leakage. For gear units with a torque arm: Check the rubber buffer and change it, if necessary.
<ul style="list-style-type: none"> Depending on the operating conditions (see chart below), every 3 years at the latest. According to oil temperature. 	<ul style="list-style-type: none"> Change oil. Replace anti-friction bearing grease (recommendation). Replace oil seal (do not install it in the same track).
<ul style="list-style-type: none"> Depending on the operating conditions (see chart below), every 5 years at the latest. According to oil temperature. 	<ul style="list-style-type: none"> Change synthetic oil. Replace anti-friction bearing grease (recommendation). Replace oil seal (do not install it in the same track).
<ul style="list-style-type: none"> Some gear units (like SEW R07, R17, R27, F27 and Spiroplan®) have lubrication for life and are therefore maintenance-free. 	
<ul style="list-style-type: none"> Varying (depending on external factors). 	<ul style="list-style-type: none"> Touch up or renew the surface/anticorrosion coating.
MOTOR	
Frequency	What to do?
<ul style="list-style-type: none"> Every 10.000 hours of operation. 	Inspect the motor: <ul style="list-style-type: none"> Check ball bearings and change if necessary. Change the oil seal. Clean the cooling air passages.
	[1] Operating hours. [2] Sustained oil bath temperature. Average value per oil type at 70°C [3] Most of our gearboxes use 0.4 liter CLP PG NSF H1 Klubersynth UH1 6-460 oil [4] Replacement interval is dependent on temperature

Table: general motor gear inspection and maintenance intervals

When replacing oil, use CLP PG NSF H1 **KLUBERSYNTH UH1 6-460** which is approved for incidental contact in the Food and Pharmaceutical industry.

Conveyor belt



Ensure that the conveyor belt and rollers are cleaned regularly.

Contamination can cause extra wear to the belt and/or misalignment of the belt.

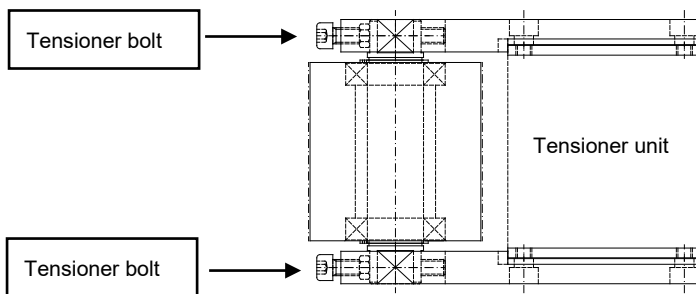
Belt alignment



Check belt alignment regularly - at least once a day - whilst device is operative.

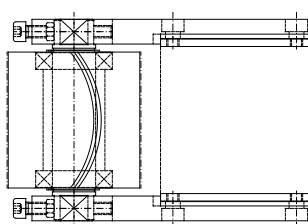
If the belt alignment is not correct this may cause excessive wear to the belt as well as to the rollers/sprockets.

If the conveyor belt has the tendency to run out of alignment (out of roller middle) it has to be adjusted, using the transport sprocket, when possible. The tensioner unit often has – for instance - tensioner bolts at both sides and can be re-aligned by turning 1 side a bit further than the other:

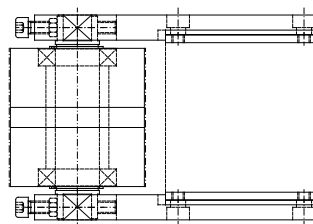


The transport roller/sprocket exerts a self-steering effect on the conveyor belt when specially designed for this purpose. There are different ways that the transport rollers of your transport belt unit may be equipped with steering parts:

- With bellow shape grooves (newest):
- With straight grooves and un-teethed middle guiding strip on belt and un-grooved middle guiding sleeve on roller



Bellow shape grooves



Straight grooves with middle guiding sleeve in sprocket

Belt tension



Check the belt tension to be correct.

If the belt tension is too high extra stress is placed on the axle journals and bearings in the driving and end roller and belt, increasing the risk of an axle or belt break or bearing wear.

These belt drives do not require high installed belt tensions.

For optimum performance, however, belts should be installed with a pre-tension suitable for the envisaged drive duty, derived from the formulae below.

Where a range is indicated, the lower value will be suitable for lightly loaded, smooth running drives, whereas drives subject to high shock loads and/or frequent starts should be tensioned to the higher level. Belt pre-tension is usually achieved by drive centre distance extension and checked by applying a setting force F (N) at mid belt span sufficient to deflect the belt a distance d (mm) related to the length of the span S (metres).

It is necessary to ensure that the force is applied at right angles to the belt span, and evenly across the belt width.

A Belt Tension Indicator may be used, in conjunction with a piece of rigid bar laid across the face of the belt at mid-span.

Electronic, sonic tension indicators are also available.

Deflection d may be 20mm/metre span length S

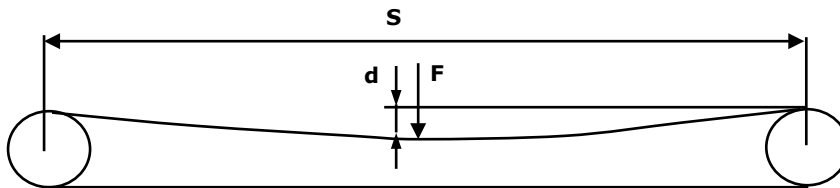
Calculate the Force F from the formulae below:

$$F_{\max} = \frac{\text{kW} \times 955,000}{d \times n}$$

$$F_{\min} = \frac{\text{kW} \times 477,500}{d \times n} \text{ (N)}$$

Where

- kW = Motor power, or absorbed power if known
- d = Pitch diameter of either pulley (mm)
- n = Rev/min of same pulley



Exchange of conveyor belt



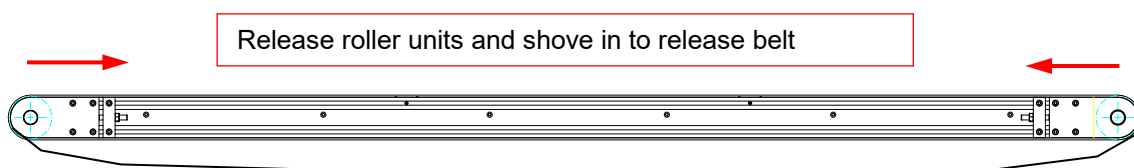
Check your conveyor belt regularly - at least once a day - on excessive wear.




Mount a new belt when excessive wear appears, so your device will be prevented from further damage.

Exchange of conveyor belt:

1. Dismount frame support and possible connecting axles at non-motor side;
2. Release the roller tension unit(s) enough to release belt;
3. Take off conveyor belt at non-motor side and remove it;
clean parts that possibly have become reachable now
4. Mount new belt in opposite order.
5. Mount frame supports and possible connecting axles back



Malfunctions/Service

	CAUTION!
	<ul style="list-style-type: none"> • Improper handling of the magnet device may lead to damages. • Potential damage to body and or property! • Any repair to GOUDSMIT magnet devices may be performed by qualified personnel only. • Be aware that permanent magnets attract ferromagnetic material with great force when it gets in reach of the magnetic field → danger of getting jammed! • Consult GOUDSMIT MAGNETIC SYSTEMS service

Malfunctions

In case of malfunctions, consult the following table in order to determine the cause of the malfunction and its possible remedy. In case a specific malfunction can't be found in the table, consult the GOUDSMIT Magnetic Systems service.

Malfunction	Possible cause	Possible remedy
Belt alignment is incorrect.	Some object(s), which is (are) stuck in device, cause(s) belt to 'walk away'.	Remove object(s).
	Roller alignment is incorrect.	Re-align tensioner roller and belt.
Motor makes excessive noise and / or has an excessive high nominal Current [A].	Conveyor belt tension is too high.	Reduce belt tension.
	The slide plate(s), over which the belt is/are running, is/are broken or have become rough.	Repair or replace slide plate(s).
Bearings make excessive noise.	Conveyor belt tension is too high.	Reduce belt tension.
	Bearings have excessive wear.	Replace bearings.

Customer service

<p>Please have the following information available if you require customer service assistance:</p> <ul style="list-style-type: none"> • Identification plate (complete) • Type and extent of the problem • Time the problem occurred and any accompanying circumstances • Assumed cause
--

Spare parts

As a result of the robustness and quality of **GOUDSMIT magnetic systems** products the device possesses high operational reliability.

When however a specific component requires replacement, the correct component can be ordered by quoting the type number stated on the *identification plate* or on one of the drawing(s) added to this user manual in the added data sheet.

The spare parts are mostly wear parts, such as:

- Transport belt
- Motor
- Bearings
- Drive roller
- Tensioner roller
- Other rollers
- Fixed castor
- Castor
- On/off switch

Following mutual consultation Goudsmit magnetic systems will arrange rapid and correct delivery.

Storage and Dismantling

Storage

If the device will not be used for a long period of time, we advise to store the device in a dry, safe place and to conserve fragile and/or sensitive parts.

Dismantling / scrapping

On scrapping and/or disposal of the device's parts separately, take into account the different nature and dangers of the components (magnets, iron, aluminium, electrical parts, insulating materials, etc.) and ensure safe disposal. Preferably entrust the task to a specialised company, and always observe the local regulations in regard to disposal of industrial waste.