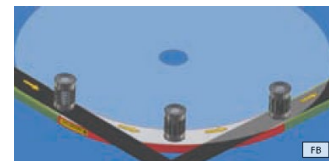
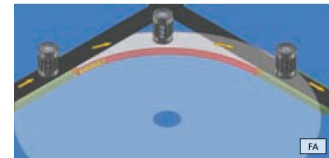
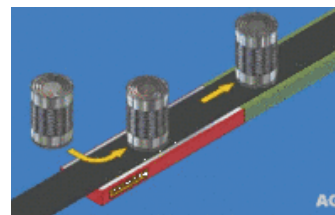
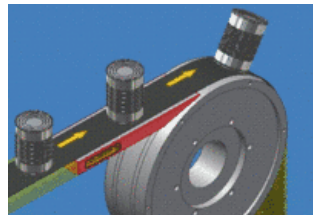
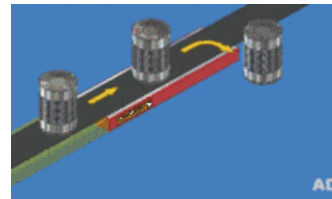


### User manual

## Magnetic rail, series TBxx, TGxx, TZxx and TRxx

Aid for transporting cans, lids, caps, etc., standing or laying on a transport belt, while being magnetically attracted onto the transport belt.



*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.*

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**Versions overview of standard manual**

<b>Version</b>	<b>Date</b>	<b>Description</b>
1.0	03/2010	First version of the English version of the user manual. Before only a pamphlet with warnings was delivered with the magnets
2.0	12/2019	Update layout and logo

**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.

- 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.

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**General**

This 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 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.

**The identification can be placed as:**

1. A sticker
2. A metal plate
3. An etching (stainless steel casings)

North or South  
Magnetisation  
direction of the  
magnetic side

**Safety**

*This chapter describes the safety risks of your device. Where necessary, warning pictograms are attached to the device. This chapter clarifies the meaning of these pictograms.*

**Know your pictograms !**

*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. Before installing the device, record where the pictograms were originally placed.*

**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 drawn towards the magnet, very powerfully. This applies to steel workbenches and steel tools, but also to Ferromagnetic materials carried on your person, such as coins in your wallet or your keys. 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 -- even personal items - 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 1 meter).



***Prohibited for people with pacemakers!***



Credit cards, chip cards, computer disks/tapes, computer screens, watches, etc. may be damaged or destroyed if they enter the magnetic field (within a radius of 0.5 meter).



***Danger for magnetic cards!***

General public and pregnant personnel should keep a minimal distance of 0.25 m from the magnet.

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

The **magnet rail** is an aid for transporting cans or lids. The cans or lids stand or lie on a transport belt, while being attracted by the fixed magnets through the transport belt.

**Temperatures min / max**

Outside temperatures from -20 °C to +40 °C.

Surrounding temperatures up to max. +80 °C for standard Neoflux® magnet material.

Surrounding temperatures up to max. +100 °C for Ferrite magnet material.

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 cleaning, inspection and maintenance operation.

**Noise level**

---

**Vibrations**

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

**Cleaning**

Clean magnets have the best attractive/holding result. So, make sure to clean more often than assumed necessary, to achieve a satisfactory result of the magnet device.

For more dirt cleaning info, see chapter [Maintenance](#)

**Deliverable specials****Temperatures**

Magnetic forces can vary with changes in temperature. With temperatures above 50°C the attraction reduces.

However, this reverts to the original value if the magnet cools down to room temperature. If the temperature of the magnets rises to above the so-called Curie point, the magnetic force can definitely be lost. As a rule of thumb it can be accepted that Ferrite magnetic components can be used up to 200°C and Neoflux® magnetic components to 80°C.

**Abrasive products**

If the belt bottom side is abrasive, then we can supply the magnet rail housing with a protective coating.

**Use in FOOD****Standard execution:**

The magnet rail is waterproof filled with 2 component PU moulding. Magnetic side is stainless steel thin plate (cap) and mounting side plate is steel. Both cap and mounting plate are painted.

**Standard FOOD execution:**

Complete SS outside, unpainted.

**Special FOOD execution:**

The magnet can be (extra special) adapted on request to other – for instance prescribed or delivered by customer – food improved materials. Surface treatments like electrolytic polishing, staining, etc. are also possible.

## Working principle

The **magnet rail** is an aid for transporting ferromagnetic products, standing or lying on a transport belt, while being attracted by the fixed magnets straight through the transport belt.

It is possible to transport body/bodies, empty or full tins, lids, crown corks, aerosol cans. Besides turnkey installations, Goudsmit also delivers the loose components to construct a magnetic transport installation by yourself. Determining the appropriate magnet type depends on the form, belt type and speed, just as the environment where this will take place.

### Factors that will play a role are:

- Product dimensions (l x w x h).
- Position on the belt (open side or closed side on the magnet).
- Belt speed and supply angle.
- Weight (full or empty can).
- Dry or wet environment. In case of a wet environment the magnets must be protected against rust. This is not only caused by water, but more and more frequently by aggressive cleaning detergents.
- Temperature (this can yield problems above 60 degrees).

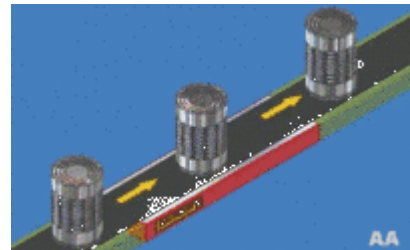
## Mounting examples

Magnet rails can be used with for various functions.  
For each function a different magnet rail type design is to be used.

### Explanatory table of magnet rail functions and designs.

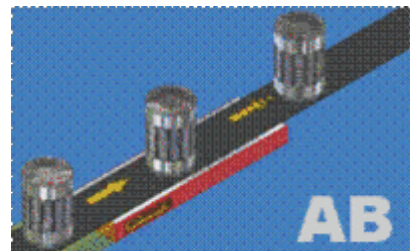
#### Type **AA**: Straight through design

Magnetic rail for straight product flow with constant magnetic force.  
Suitable for fitting in-between other magnetic rails.



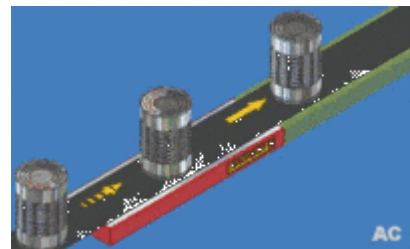
#### Types **AB**: Decreasing design

Magnetic rail with decreasing magnetic field for transfer from magnetic to non-magnetic conveyance and vice versa. The decreasing magnetic field guarantees a smooth and trouble-free transfer. Type AB for fitting at the end of the magnetic path.



#### Types **AC**: Increasing design

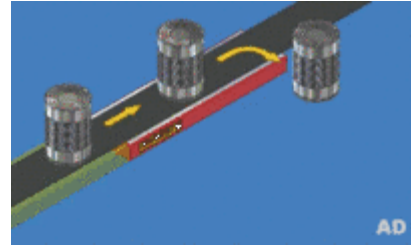
Magnetic rail with increasing magnetic field for transfer from non-magnetic to magnetic conveyance and vice versa. The increasing magnetic field guarantees a smooth and trouble-free transfer. Type AC for fitting at the beginning of the magnetic path.



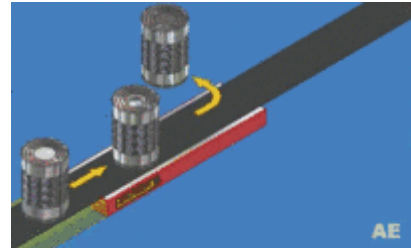
**Types AD and AE: Reduced pole design**

Magnetic rail with reduced magnetic pole for side-ways discharge at the end of the magnetic path.

Type **AD** with reduced North pole for discharge to the right.



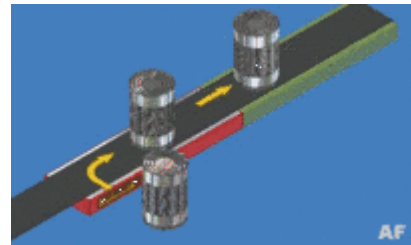
Type **AE** with reduced South pole for discharge to the left.



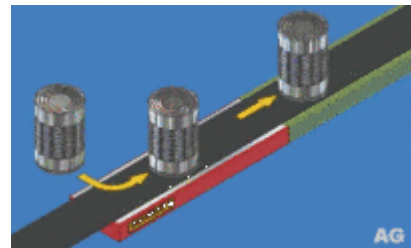
**Types AF and AG: Reduced pole design**

Magnetic rail with reduced magnetic pole for side-ways entry at the beginning of the magnetic path.

Type **AF** with reduced North pole for entry from the right



Type **AG** with reduced South pole for entry from the left.



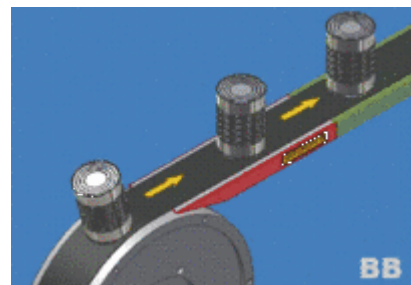
**Types BA and BB: Sloping design**

Magnetic rail with sloping shape for optimum connection to a magnetic roller.

Type **BA** for fitting before a magnetic roller.



Type **BB** for fitting after a magnetic roller.

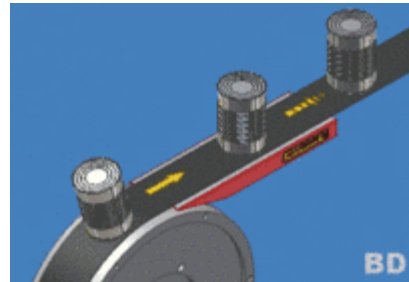
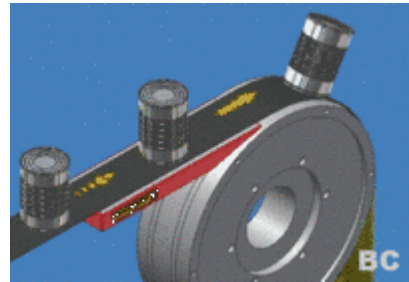


**Types BC and BD: Sloping and decreasing design:**

Magnetic rail with sloping shape and decreasing magnetic field for transfer from non-magnetic to magnetic conveyance and vice versa.

Type **BC** for fitting before a magnetic roller (decreasing)

Type **BD** for fitting after a magnetic roller (increasing)



**Selection of Components**

Selection table for standard magnetic rail systems and their applications						
Series Code	Dim. Width x height w x h [mm]	Type magnetic system	Application: For conveying	Max. product dimensions (mm)	Max. rising angle	Max. transport speed (m/min]
TB - 01	52 x 17	2 pole Ferrite 1300 Gauss For dry conditions	Crown corks, lids, battery cases, screw-tops, tomato cans	Lids ø153 Caps ø83	0 - 90°	120
			Vertical transport of empty cans (with the bottom on the conveyer belt)	Ø65 x 145	0 - 90°	120
			Horizontal transport of empty cans (with the bottom on the conveyor belt)	Ø65 x 231 Ø99 x 178	0 - 45°	120
TB - 02	77 x 24	2 pole Ferrite 1400 Gauss. For dry conditions	Vertical and suspended transport of empty cans (bottom on belt)	Ø99 x 178	0 - 270°	90
			Vertical transport of cylindrical bodies	Ø73 x 113	0 - 90°	120
TB - 03	102 x 24	2 pole Ferrite 1500 Gauss For dry conditions	Vertical and suspended transport of empty cans (bottom on belt)	Ø99 x 178 Ø153 x 231 Ø231 x 278	0 - 270°	120 120 90
			Vertical transport of cylindrical bodies	Ø99 x 119	0 - 90°	120
			Vertical and suspended transport of empty aerosols and 2-part cans	Ø65 x 178	0 - 270°	90
TB - 04	102 x 44	2 pole Ferrite 1650 Gauss For dry conditions	Vertical transport of cylindrical bodies	Ø99 x 178	0 - 90°	90
			Vertical and suspended transport of empty aerosols and 2-part cans	Ø65 x 178 Ø65 x 231	0 - 270°	120 90
			Vertical transport of filled cans (thickness of conveyer belt max. 3 mm)	Ø83 x 46	0 - 90°	90
			Vertical transport of empty cans with the bottoms on 9 mm thick Intralox belt	Ø99 x 133	0 - 90°	90
TB - 14	102 x 44	2 pole Ferrite 1850 Gauss For dry conditions	Vertical transport of cylindrical bodies	Ø153 x 231	0 - 90°	75
			Vertical and suspended transport of empty aerosols and 2-part cans	Ø65 x 231 Ø65 x 153	0 - 270°	120 180

Selection table for standard magnetic rail systems and their applications						
Series Code	Dim. Width x height w x h [mm]	Type magnetic system	Application: For conveying	Max. product dimensions (mm)	Max. rising angle	Max. transport speed (m/min)
			Vertical and suspended transport of empty cans on 9 mm thick Intralox belt	Ø99 x 133	0 - 270°	120
			Vertical transport of filled cans (thickness of conveyor belt max. 3 mm)	Ø65 x 102	0 - 90°	60
				Ø73 x 103		60
TB - 54	102 x 44	2 pole Ferrite 1850 Gauss For wet conditions Water resistant	Vertical and hanging conveyance of empty cans, bottom on 9 mm thick intralox belt	Ø99 x 133	0 - 270°	120
			Vertical conveyance of filled cans (thickness of conveyor belt max. 3 mm)	Ø65 x 102	0 - 90°	60
				Ø73 x 113		60
TG - 43	103 x 22	2 pole Neoflux® 3550 Gauss For wet conditions Water resistant	Vertical and hanging conveyance of filled cans (thickness of conveyor belt max. 3 mm)	Ø65 x 102	0 - 270°	60
			Sloping conveyance of filled cans on 9 mm thick Intralox belt	Ø73 x 113	0 - 20°	60
				Ø99 x 60		0 - 30°
TG - 44	153 x 22	2 pole Neoflux® 3650 Gauss For wet conditions Water resistant	Sloping conveyance of filled cans (thickness of conveyor belt max. 3 mm)	Ø153 x 178	0 - 60°	60
			Sloping conveyance of filled cans on 9 mm thick Intralox belt	Ø73 x 113	0 - 20°	60
				Ø99 x 119		0 - 30°

The standard series of each type code is specified in the next pages

TB - 01



Device description

Type code				Cross section W x T [mm]	Length L [mm]	Thread holes 2x M8 A / B [mm]	Weight [kg]
stand	ard rail						
TB	AA	0100	02	77 x 24	100	20 / 60	0.9
TB	AA	0300	02	77 x 24	300	75 / 150	2.6
TB	AA	0500	02	77 x 24	500	75 / 350	4.2
TB	AA	0750	02	77 x 24	750	75 / 600	6.2
TB	AA	1000	02	77 x 24	1000	75 / 850	8.3
TB	AB	0300	02	77 x 24	300	75 / 150	2.6
TB	AC	0300	02	77 x 24	300	75 / 150	2.6
TB	AD	0300	02	77 x 24	300	75 / 150	2.6
TB	AE	0300	02	77 x 24	300	75 / 150	2.6
TB	AF	0300	02	77 x 24	300	75 / 150	2.6
TB	AG	0300	02	77 x 24	300	75 / 150	2.6
TB	BA	0335	02	77 x 24	335	50 / 100	2.6
TB	BB	0335	02	77 x 24	335	50 / 100	2.6
TB	BC	0335	02	77 x 24	335	50 / 100	2.6
TB	BD	0335	02	77 x 24	335	50 / 100	2.6

**TB - 02**

Type code				Cross section W x T [mm]	Length L [mm]	Thread holes 2x M8 A / B [mm]	Weight [kg]
stand	ard rail						
TB	AA	0100	02	77 x 24	100	20 / 60	0.9
TB	AA	0300	02	77 x 24	300	75 / 150	2.6
TB	AA	0500	02	77 x 24	500	75 / 350	4.2
TB	AA	0750	02	77 x 24	750	75 / 600	6.2
TB	AA	1000	02	77 x 24	1000	75 / 850	8.3
TB	AB	0300	02	77 x 24	300	75 / 150	2.6
TB	AC	0300	02	77 x 24	300	75 / 150	2.6
TB	AD	0300	02	77 x 24	300	75 / 150	2.6
TB	AE	0300	02	77 x 24	300	75 / 150	2.6
TB	AF	0300	02	77 x 24	300	75 / 150	2.6
TB	AG	0300	02	77 x 24	300	75 / 150	2.6
TB	BA	0335	02	77 x 24	335	50 / 100	2.6
TB	BB	0335	02	77 x 24	335	50 / 100	2.6
TB	BC	0335	02	77 x 24	335	50 / 100	2.6
TB	BD	0335	02	77 x 24	335	50 / 100	2.6

Device description

**TB - 03**

Type Code standard rail				Cross section W x T [mm]	Length	Thread holes 2xM8 A/B (mm)	Weight [kg]
TB	AA	100	03	102 x 24	100	20 / 60	1.1
TB	AA	300	03	102 x 24	300	75 / 150	3.1
TB	AA	500	03	102 x 24	500	75 / 350	5.1
TB	AA	750	03	102 x 24	750	75 / 600	7.6
TB	AA	1000	03	102 x 24	1000	75 / 850	10.1
TB	AB	300	03	102 x 24	300	75 / 150	3.1
TB	AC	300	03	102 x 24	300	75 / 150	3.1
TB	AD	300	03	102 x 24	300	75 / 150	3.1
TB	AE	300	03	102 x 24	300	75 / 150	3.1
TB	AF	300	03	102 x 24	300	75 / 150	3.1
TB	AG	300	03	102 x 24	300	75 / 150	3.1
TB	BA	335	03	102 x 24	335	50 / 100	3.1
TB	BB	335	03	102 x 24	335	50 / 100	3.1
TB	BC	335	03	102 x 24	335	50 / 100	3.1
TB	BD	335	03	102 x 24	335	50 / 100	3.1

**TB - 04**

Code standard rail				Cross section W x T [mm]	Length L [mm]	Thread holes 2x M8 A / B [mm]	Weight [kg]
TB	AA	0100	04	102 x 44	100	20 / 60	1.7
TB	AA	0300	04	102 x 44	300	75 / 150	4.9
TB	AA	0500	04	102 x 44	500	75 / 350	8.1
TB	AA	0750	04	102 x 44	750	75 / 600	12.1
TB	AA	1000	04	102 x 44	1000	75 / 850	16.1
TB	AB	0300	04	102 x 44	300	75 / 150	4.9
TB	AC	0300	04	102 x 44	300	75 / 150	4.9
TB	AD	0300	04	102 x 44	300	75 / 150	4.9
TB	AE	0300	04	102 x 44	300	75 / 150	4.9
TB	AF	0300	04	102 x 44	300	75 / 150	4.9
TB	AG	0300	04	102 x 44	300	75 / 150	4.9
TB	BA	0335	04	102 x 44	335	50 / 100	4.9
TB	BB	0335	04	102 x 44	335	50 / 100	4.9
TB	BC	0335	04	102 x 44	335	50 / 100	4.9
TB	BD	0335	04	102 x 44	335	50 / 100	4.9

**TB – 14**

Type code standard rail				Cross section W x T [mm]	Length L [mm]	Thread holes 2x M8 A / B [mm]	Weight [kg]
TB	AA	0100	14	102 x 44	100	20 / 60	2.1
TB	AA	0300	14	102 x 44	300	75 / 150	6.2
TB	AA	0500	14	102 x 44	500	75 / 350	10.2
TB	AA	0750	14	102 x 44	750	75 / 600	15.2
TB	AA	1000	14	102 x 44	1000	75 / 850	20.3
TB	AB	0500	14	102 x 44	500	75 / 350	10.1
TB	AC	0500	14	102 x 44	500	75 / 350	10.1
TB	AD	0300	14	102 x 44	300	75 / 150	6.2
TB	AE	0300	14	102 x 44	300	75 / 150	6.2
TB	AF	0300	14	102 x 44	300	75 / 150	6.2
TB	AG	0300	14	102 x 44	300	75 / 150	6.2
TB	BA	0335	14	102 x 44	335	50 / 100	6.2
TB	BB	0335	14	102 x 44	335	50 / 100	6.2
TB	BC	0535	14	102 x 44	535	50 / 300	10.2
TB	BD	0535	14	102 x 44	535	50 / 300	10.2

## TB – 54

Type				Cross section W x T	Length L [mm]	Threaded holes 2 x M8 A/B (mm)	Weight (kg)
code	standard	rail					
TB	AA	100	54	102 x 44	100	20 / 60	2.3
TB	AA	300	54	102 x 44	300	75 / 150	6.6
TB	AA	500	54	102 x 44	500	75 / 350	10.9
TB	AA	750	54	102 x 44	750	75 / 600	16.2
TB	AA	1000	54	102 x 44	1000	75 / 850	21.6
TB	AB	500	54	102 x 44	500	75 / 350	10.8
TB	AC	500	54	102 x 44	500	75 / 350	10.8
TB	AD	300	54	102 x 44	300	75 / 150	6.6
TB	AE	300	54	102 x 44	300	75 / 150	6.6
TB	AF	300	54	102 x 44	300	75 / 150	6.6
TB	AG	300	54	102 x 44	300	75 / 150	6.6
TB	BA	335	54	102 x 44	335	50 / 100	6.6
TB	BB	335	54	102 x 44	335	50 / 100	6.6
TB	BC	535	54	102 x 44	535	50 / 300	10.9
TB	BD	535	54	102 x 44	535	50 / 300	10.9

**TG – 43**

Type				Cross section	Length	Threaded holes 2 x M8	Weight
code standard rail				W x T	L [mm]	A/B (mm)	(kg)
TG	AA	100	43	103 x 22	100	20 / 60	1.8
TG	AA	300	43	103 x 22	300	75 / 150	5
TG	AA	500	43	103 x 22	500	75 / 350	8.3
TG	AA	750	43	103 x 22	750	75 / 600	12.4
TG	AA	1000	43	103 x 22	1000	75 / 850	16.5
TG	AB	500	43	103 x 22	500	75 / 350	8.3
TG	AC	500	43	103 x 22	500	75 / 350	8.3
TG	AD	300	43	103 x 22	300	75 / 150	5
TG	AE	300	43	103 x 22	300	75 / 150	5
TG	AF	300	43	103 x 22	300	75 / 150	5
TG	AG	300	43	103 x 22	300	75 / 150	5
TG	BA	335	43	103 x 22	335	50 / 100	5
TG	BB	335	43	103 x 22	335	50 / 100	5
TG	BC	535	43	103 x 22	535	50 / 300	8.3
TG	BD	535	43	103 x 22	535	50 / 300	8.3

**TG – 44**

Type code				Cross section	Length	Threaded holes 2 x M8	Weight
standard rail				W x T	L [mm]	A/B (mm)	(kg)
TG	AA	100	44	153 x 22	100	20 / 60	2.6
TG	AA	300	44	153 x 22	300	75 / 150	7.4
TG	AA	500	44	153 x 22	500	75 / 350	12.3
TG	AA	750	44	153 x 22	750	75 / 600	18.4
TG	AA	1000	44	153 x 22	1000	75 / 850	24.5
TG	AB	500	44	153 x 22	500	75 / 350	12.3
TG	AC	500	44	153 x 22	500	75 / 350	12.3
TG	AD	300	44	153 x 22	300	75 / 150	7.4
TG	AE	300	44	153 x 22	300	75 / 150	7.4
TG	AF	300	44	153 x 22	300	75 / 150	7.4
TG	AG	300	44	153 x 22	300	75 / 150	7.4
TG	BA	335	44	153 x 22	335	50 / 100	7.4
TG	BB	335	44	153 x 22	335	50 / 100	7.4
TG	BC	535	44	153 x 22	335	50 / 300	12.3
TG	BD	535	44	153 x 22	335	50 / 300	12.3

Magnetic Roller Ferrite					
Type	Number	Dimensions	Group	Description	
TR AA	400130	400x105x130	ATRA	Magnetic Roller Ferrite	
TR AA	400145	400x105x145	ATRA	Magnetic Roller Ferrite	
TR AA	400340	400x105x340	ATRA	Magnetic Roller Ferrite	
TR AA	400077	400x105x77	XTRA	Magnetic Roller Ferrite	
TR AA	400094	400x105x94	XTRA	Magnetic Roller Ferrite	
TR AA	400110	400x105x110	XTRA	Magnetic Roller Ferrite	
TR BB	220090	220x30x90	XTRA	Magnetic Roller Ferrite	
TR BB	220120	220x30x120	XTRA	Magnetic Roller Ferrite	
TR BD	050001	50x16x25	XTRA	Magnetic Roller Ferrite	
TR BD	063001	63x20x32	XTRA	Magnetic Roller Ferrite	
TR BD	100003	100x30x50	XTRA	Magnetic Roller Ferrite	
TR BD	120004	120x20x130	XTRA	Magnetic Roller Ferrite	
TR BD	160001	160x50x80	XTRA	Magnetic Roller Ferrite	
TR BD	400097	400x105x110	XTRA	Magnetic Roller Ferrite	
TR BE	080001	80x20x39	XTRA	Magnetic Roller Ferrite	
TR BE	100001	100x25x51	XTRA	Magnetic Roller Ferrite	
TR BD	100008	100x30x77	ATRA	Magnetic Roller Ferrite	
TR BD	160002	160x50x80	ATRA	Magnetic Roller Ferrite	

Magnetic Roller Ferrite Special					
Type	Number	Dimensions	Group	Description	
TR AD	400011	400x105x94	ATRD	Magnetic Roller Ferrite Special	
TR BD	032002	32x80	ATRD	Magnetic Roller Ferrite Special	
TR BD	041001	42x110	ATRD	Magnetic Roller Ferrite Special	
TR BD	050006	50x15x110	ATRD	Magnetic Roller Ferrite Special	
TR BD	050007	50x75	ATRD	Magnetic Roller Ferrite Special	
TR BD	050008	50x15x110	ATRD	Magnetic Roller Ferrite Special	
TR BD	050009	50x75	ATRD	Magnetic Roller Ferrite Special	
TR BD	050010	50x125	ATRD	Magnetic Roller Ferrite Special	
TR BD	050011	50x100	ATRD	Magnetic Roller Ferrite Special	
TR BD	050012	50x125	ATRD	Magnetic Roller Ferrite Special	
TR BD	050013	50x225	ATRD	Magnetic Roller Ferrite Special	
TR BD	050014	50x175	ATRD	Magnetic Roller Ferrite Special	
TR BD	050015	50x125	ATRD	Magnetic Roller Ferrite Special	
TR BD	050016	50x18x110	ATRD	Magnetic Roller Ferrite Special	
TR BD	050017	50x18x120	ATRD	Magnetic Roller Ferrite Special	
TR BD	050018	50x18x110	ATRD	Magnetic Roller Ferrite Special	
TR BD	063002	63x20xB32Ticonax	ATRD	Magnetic Roller Ferrite Special	
TR BD	080005	80x30x40	ATRD	Magnetic Roller Ferrite Special	
TR BD	080008	80x30x40	ATRD	Magnetic Roller Ferrite Special	
TR BD	080009	80x75	ATRD	Magnetic Roller Ferrite Special	
TR BD	082001	82x30x55	ATRD	Magnetic Roller Ferrite Special	
TR BD	090005	90x90	ATRD	Magnetic Roller Ferrite Special	
TR BD	090006	90x70	ATRD	Magnetic Roller Ferrite Special	
TR BD	090007	90x125	ATRD	Magnetic Roller Ferrite Special	
TR BD	100009	100x20x90	ATRD	Magnetic Roller Ferrite Special	
TR BD	110001	110x25x50	ATRD	Magnetic Roller Ferrite Special	
TR BD	110002	111.7x20x70	ATRD	Magnetic Roller Ferrite Special	
TR BD	110003	111.7x70	ATRD	Magnetic Roller Ferrite Special	
TR BD	118000	118x30x104	ATRD	Magnetic Roller Ferrite Special	
TR BD	120003	120x30x100	ATRD	Magnetic Roller Ferrite Special	
TR BD	125003	125x40x62	ATRD	Magnetic Roller Ferrite Special	
TR BD	136001	136x25x40	ATRD	Magnetic Roller Ferrite Special	
TR BD	137001	137.2x20x55	ATRD	Magnetic Roller Ferrite Special	
TR BD	137002	137.2x15x55	ATRD	Magnetic Roller Ferrite Special	
TR BD	137003	137.2x20x55	ATRD	Magnetic Roller Ferrite Special	
TR BD	140001	140x25x80	ATRD	Magnetic Roller Ferrite Special	
TR BD	150001	150x20x120	ATRD	Magnetic Roller Ferrite Special	
TR BD	186001	186x25xB85	ATRD	Magnetic Roller Ferrite Special	
TR BD	210001	210x30x110<110	ATRD	Magnetic Roller Ferrite Special	
TR BD	220002	220x30x100	ATRD	Magnetic Roller Ferrite Special	
TR BD	220017	220x30x105	ATRD	Magnetic Roller Ferrite Special	
TR BD	220021	220x30x80	ATRD	Magnetic Roller Ferrite Special	
TR BD	220024	220x30x90	ATRD	Magnetic Roller Ferrite Special	
TR BD	220025	220x30x120	ATRD	Magnetic Roller Ferrite Special	
TR BD	220026	220x30x130	ATRD	Magnetic Roller Ferrite Special	
TR BD	220027	220x40x90	ATRD	Magnetic Roller Ferrite Special	
TR BD	220028	220x30x120	ATRD	Magnetic Roller Ferrite Special	
TR BD	220029	220x30x130	ATRD	Magnetic Roller Ferrite Special	
TR BD	270001	270x50x170<110	ATRD	Magnetic Roller Ferrite Special	
TR BD	270003	270x50x170<110	ATRD	Magnetic Roller Ferrite Special	
TR BD	288001	288x50x180	ATRD	Magnetic Roller Ferrite Special	
TR BD	362130	PULLEY BATK10/114	ATRD	Magnetic Roller Ferrite Special	
TR BD	363130	ERBATK10/114	ATRD	Magnetic Roller Ferrite Special	

Device description

TR	BD	385002	385.8x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	385003	385.8x105x145	ATRD	Magnetic Roller Ferrite Special
TR	BD	395003	395x60x56	ATRD	Magnetic Roller Ferrite Special
TR	BD	395004	395x105x60	ATRD	Magnetic Roller Ferrite Special
TR	BD	400005	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400007	398x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400010	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400012	400	ATRD	Magnetic Roller Ferrite Special
TR	BD	400013	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400015	400	ATRD	Magnetic Roller Ferrite Special
TR	BD	400029	400	ATRD	Magnetic Roller Ferrite Special
TR	BD	400031	400x105x77	ATRD	Magnetic Roller Ferrite Special
TR	BD	400038	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400039	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400068	400x105x145	ATRD	Magnetic Roller Ferrite Special
TR	BD	400074	400x40x100	ATRD	Magnetic Roller Ferrite Special
TR	BD	400091	400x105x120	ATRD	Magnetic Roller Ferrite Special
TR	BD	400100	400x40x100	ATRD	Magnetic Roller Ferrite Special
TR	BD	400102	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400103	400x105x79	ATRD	Magnetic Roller Ferrite Special
TR	BD	400107	400x105x165	ATRD	Magnetic Roller Ferrite Special
TR	BD	400108	400x105x52	ATRD	Magnetic Roller Ferrite Special
TR	BD	400109	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400110	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400111	400x40x110	ATRD	Magnetic Roller Ferrite Special
TR	BD	400112	400x105x144	ATRD	Magnetic Roller Ferrite Special
TR	BD	400113	400x105x144	ATRD	Magnetic Roller Ferrite Special
TR	BD	400115	400x105x110	ATRD	Magnetic Roller Ferrite Special
TR	BD	400116	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400117	400x105x145	ATRD	Magnetic Roller Ferrite Special
TR	BD	400118	400x105x110	ATRD	Magnetic Roller Ferrite Special
TR	BD	400119	400x105x180	ATRD	Magnetic Roller Ferrite Special
TR	BD	400120	400x105x121	ATRD	Magnetic Roller Ferrite Special
TR	BD	400123	400x40x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400124	400x105x94	ATRD	Magnetic Roller Ferrite Special
TR	BD	400125	400x105x130	ATRD	Magnetic Roller Ferrite Special
TR	BD	405001	405x65x20	ATRD	Magnetic Roller Ferrite Special
TR	BD	413001	413x65x20	ATRD	Magnetic Roller Ferrite Special
TR	BD	416001	416x105x110	ATRD	Magnetic Roller Ferrite Special
TR	BD	500002	500x200	ATRD	Magnetic Roller Ferrite Special
TR	BD	541002	541x80x20	ATRD	Magnetic Roller Ferrite Special
TR	BD	546003	546x80x20	ATRD	Magnetic Roller Ferrite Special
TR	BD	600002	600x105x110	ATRD	Magnetic Roller Ferrite Special
TR	BD	600003	600x105x190	ATRD	Magnetic Roller Ferrite Special
TR	BE	120002	120x400	ATRD	Magnetic Roller Ferrite Special



Magnetic Roller Ferrite Reinforced					
Type	Number	Dimensions	Group	Description	
TR BB	220105	220x30x105	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	220110	220x30x110	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	220150	220x30x150	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	220220	220x30x220	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	400120	400x105x120	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	400130	400x105x130	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	400165	400x105x165	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	416440	416x105x110	ATRB	Magnetic Roller Ferrite Reinforced	
TR BB	220075	220x30x75	XTRA	Magnetic Roller Ferrite Reinforced	
TR BB	400077	400x105x77	XTRA	Magnetic Roller Ferrite Reinforced	
TR BB	400094	400x105x94	XTRA	Magnetic Roller Ferrite Reinforced	
TR BB	400125	400x105x125	XTRA	Magnetic Roller Ferrite Reinforced	
TR BB	400145	400x105x145	XTRA	Magnetic Roller Ferrite Reinforced	
TR BD	385001	385	ARTZ	Magnetic Roller Ferrite Reinforced	
TR BD	400121	400x105x230	ATRB	Magnetic Roller Ferrite Reinforced	
TR BD	400126	400x105x145	ATRB	Magnetic Roller Ferrite Reinforced	
TR BD	400114	400x105x110	XTRA	Magnetic Roller Ferrite Reinforced	

Magnetic Roller Ferrite Multipole					
Type	Number	Dimensions	Group	Description	
TR BE	038001	38x11x60	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	040002	40x120	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	050004	50x75	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	052000	52x110	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	067002	67x20x285.5	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	080003	80x25x39	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	080005	79x160	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	080010	80x40x37	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	085001	85x42x28	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	097001	97x20x510	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	100006	100x20x29	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	100007	94x20x540	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	108001	108x25x30	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	108002	108x25x30	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	115001	114.8x35x35	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	120004	120x415	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	150006	150x120	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	158001	158.5x75x186	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	159001	159x62x273	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	160001	160	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	200002	200x30x432	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	200003	200x30x252	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	200004	200x20x110	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	200005	200x20x90	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	215001	215x25x90	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220014	220x30x280	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220017	220x50x470	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220023	220x50x665	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220033	220x30x140	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220037	220x30x130	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220038	220x30x180	ATRE	Magnetic Roller Ferrite Multipole	
TR BE	220039	220x30x220	ATRE	Magnetic Roller Ferrite Multipole	

Device description

TR	BE	220040	220x35x220	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	220041	220x30x150	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	220042	220x30x220	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	220043	220x30x225	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	300013	300x60x340	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	300014	300x60x440	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	300017	300x35x172	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	300021	300x60x260	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	300022	300x60x250	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	350001	350x60x340	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400001	400x105x94	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400002	400x105x360	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400005	400x105xB94	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400016	400x50x620	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400026	400x105x400	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400029	400x105x94	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400030	400x60x455	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400031	400x60x455	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400032	400x105x220	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400033	400x60x355	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400034	400x60x455	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	400035	400X105X130	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	500001	500x300	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	590003	590.2x425x132	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	032001	32x10x15	ATRE	Magnetic Roller Ferrite Multipole
TR	BE	063004	63x16x39	ATRE	Magnetic Roller Ferrite Multipole

<b>Magnetic Roller NdFeB Special</b>					
Type		Number	Dimensions	Group	Description
TR	GG	400110	400x105x110	ATRG	Magnetic Roller NdFeB Special
TR	GG	500110	500x40x110	ATRG	Magnetic Roller NdFeB Special
TR	BD	042001	42x15x54	ATRD	Magnetic Roller NdFeB Special
TR	BD	052001	52x22x54	ATRD	Magnetic Roller NdFeB Special
TR	BD	100010	100x30x100	ATRD	Magnetic Roller NdFeB Special
TR	BD	111001	111x20x20<100	ATRD	Magnetic Roller NdFeB Special
TR	BD	220015	220x30x75	ATRD	Magnetic Roller NdFeB Special
TR	BD	379001	379x65x20	ATRD	Magnetic Roller NdFeB Special
TR	BD	395002	395x65x20	ATRD	Magnetic Roller NdFeB Special
TR	BD	400105	400x105x220	ATRD	Magnetic Roller NdFeB Special
TR	BD	400106	400x320x12	ATRD	Magnetic Roller NdFeB Special
TR	BD	421001	421x65x20	ATRD	Magnetic Roller NdFeB Special
TR	BD	426001	426x65x20	ATRD	Magnetic Roller NdFeB Special
TR	BD	439001	439x80x20	ATRD	Magnetic Roller NdFeB Special
TR	BD	499003	93-99	ATRD	Magnetic Roller NdFeB Special
TR	BD	514003	514x80x20	ATRD	Magnetic Roller NdFeB Special
TR	NH	030000	30x50	ATRH	Magnetic Roller NdFeB Special
TR	NH	041000	41x16x50.5	ATRH	Magnetic Roller NdFeB Special
TR	NH	092025	92-0.5x30.1x20	ATRH	Magnetic Roller NdFeB Special
TR	NH	100001	100x30x50	ATRH	Magnetic Roller NdFeB Special
TR	NH	100002	100x30x50	ATRH	Magnetic Roller NdFeB Special
TR	NH	125001	125x40x62	ATRH	Magnetic Roller NdFeB Special
TR	NH	400000	400x65x110	ATRH	Magnetic Roller NdFeB Special

Magnetic Roller NdFeB Multipole					
Type	Number	Dimensions	Group	Description	
TR	BE	030001	30x125	ATRE	Magnetic Roller NdFeB Multipole
TR	BE	030002	30x225	ATRE	Magnetic Roller NdFeB Multipole
TR	BE	039001	39x10x62	ATRE	Magnetic Roller NdFeB Multipole
TR	NI	081001	81x40x39+19	ATRI	Magnetic Roller NdFeB Multipole
TR	NI	100001	100x47x40+5	ATRI	Magnetic Roller NdFeB Multipole

**Arcs and bends table**

**D A : Magnetic arc design**

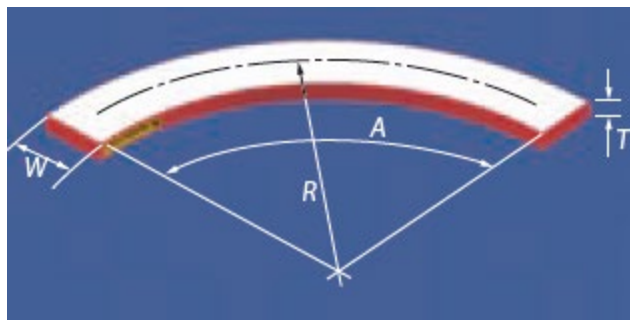
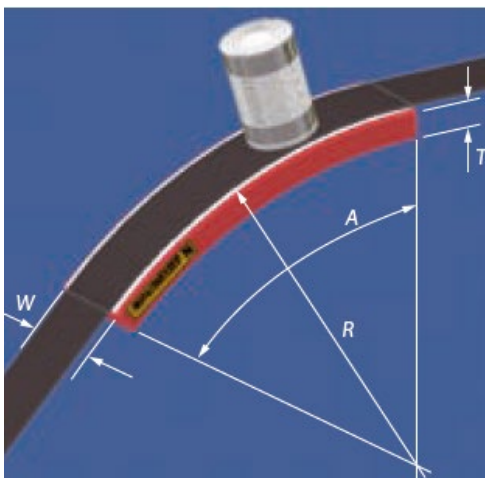
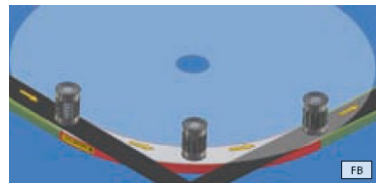
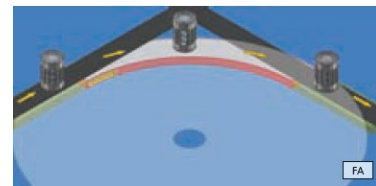
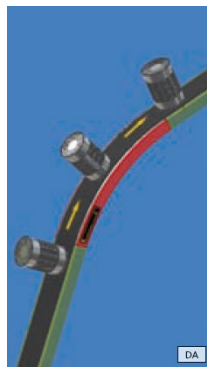
Magnetic arc rail for straight product flow with constant magnetic force.  
Suitable for fitting in between other magnetic rails, as alternative to a magnetic roller.

**F A F B : Magnetic curve design**

Magnetic curve rail for a product flow that branches off is usually combined with a powered disc and crossed conveyor belts. The magnetic force is constant.

Type FA for branching off to the right (curve rail clockwise).

Type FB for branching off to the left (curve rail counter-clockwise).



Device description

With this table it is possible to determine the transition between the various magnet rails and roles.

Type code standard arc rail				Cross section W x T (mm)	Angle A (°)	Radius R (mm)	Gewicht kg	Type code standard curve rail				Cross section W x T (mm)	Angle A (°)	Radius R (mm)	Weight (kg)
TB	DA	4550	01	52x17	45	500	2,0	TB	FA	9050	02	77x24	90	500	5,2
TB	DA	4570	01	52x17	45	700	2,6	TB	FA	9070	02	77x24	90	700	7,3
TB	DA	9050	01	52x17	90	500	3,8								
TB	DA	9070	01	52x17	90	700	5,3	TB	FA	9050	03	102x24	90	500	7,1
								TB	FA	9070	03	102x24	90	700	10,0
TB	DA	4550	02	77x24	45	500	3,3								
TB	DA	4570	02	77x24	45	700	4,6	TB	FA	9050	04	102x24	90	500	11,6
TB	DA	9050	02	77x24	90	500	6,7	TB	FA	9070	04	102x24	90	700	16,4
TB	DA	9070	02	77x24	90	700	9,3								
TB	DA	4550	03	102x24	45	500	4,2	TB	FA	9050	14	102x44	90	500	14,1
TB	DA	4570	03	102x24	45	700	5,9	TB	FA	9070	14	102x44	90	700	20,0
TB	DA	9050	03	102x24	90	500	8,6	TB	FA	9050	54	102x44	90	500	15,2
TB	DA	9070	03	102x24	90	700	12,0	TB	FA	9070	54	102x44	90	700	21,4
TB	DA	4550	04	102x44	45	500	6,8	TB	FB	9050	02	77x24	90	500	5,2
TB	DA	4570	04	102x44	45	700	9,7	TB	FB	9070	02	77x24	90	700	7,3
TB	DA	9050	04	102x44	90	500	13,5								
TB	DA	9070	04	102x44	90	700	19,4	TB	FB	9050	03	102x24	90	500	7,1
								TB	FB	9070	03	102x24	90	700	10,0
TB	DA	4550	14	102x44	45	500	7,3								
TB	DA	4570	14	102x44	45	700	10,5	TB	FB	9050	04	102x44	90	500	11,6
TB	DA	9050	14	102x44	90	500	14,6	TB	FB	9070	04	102x44	90	700	16,4
TB	DA	9070	14	102x44	90	700	21,0								
								TB	FB	9050	14	102x44	90	500	14,1
TB	DA	4550	54	102x44	45	500	13,9	TB	FB	9070	14	102x44	90	700	20,0
TB	DA	4570	54	102x44	45	700	23,2								
TB	DA	9050	54	102x44	90	500	27,6	TB	FB	9050	54	102x44	90	500	15,2
TB	DA	9070	54	102x44	90	700	46,2	TB	FB	9070	54	102x44	90	700	21,4

**Magnet materials**

Magnet rails can be equipped with Neoflux® or with Ferroxdure magnets:

*Executions with other magnet materials are also possible, but in practice only these 2 materials are used so far.*

**Ferroxdure magnets**

- Cheaper (in reality, depending on the position of the magnet)
- Have good penetration (up to max. 400 mm)
- Can be employed up to approximately 250°C
- Value at magnetic poles; app. 2800 Gauss → depends on type
- Not suitable for capturing stainless steel particles

**Neoflux® magnet rails**

- Are minimum 4 times as powerful, but more sensitive to temperature than Ferroxdure magnets
- As a result they can be constructed in a light and compact manner
- Standard model can be employed up to 80°, special model to 220° (so far)
- Value at magnetic poles; app. 10.000 Gauss → depends on type
- Model is completely of stainless steel and is completely waterproof (IP67)

For a wide overview of plate magnets and their positioning in relation to the material flow, also read the brochure on our website.

**Installation****STRONG MAGNET FIELD**

Make sure to have read the safety chapter before installation with magnets.  
This may prevent for serious injuries!!!

**Extra attention when unwrapping / unpacking / installing the magnet rail:**

Always be aware that the magnets can be powerfully attracted or repelled, depending on whether the magnetic fields attract or repel, when they are close to another.

***Danger - jamming of body parts***

**Start-up****Before start-up, make sure that:**

- The device or the installation has no damages or malfunctions.
- All connections (electrical, mechanical, pneumatic) have been made properly.
- The device or the installation is placed and situated correctly.
- All protective covers (if applicable) have been fitted correctly.
- There are no other sources of danger present.

**During start-up, make sure that:**

- The device or the installation has no damages or malfunctions.
- All other parts of the device or installation function as described.

**STRONG MAGNET FIELD**

Make sure to have read the safety chapter before startup an installation with magnets.  
This may prevent for serious injuries!!!

**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.



**STRONG MAGNET FIELD**

Make sure to have read the safety chapter before doing maintenance work with magnets; this may prevent for serious injuries!!!

**The magnetic field is permanent, so also active during maintenance and/or cleaning of the magnet!**

**Only do maintenance works to the magnet when the material stream is halted.**

*Maintenance activities are indicated in the icons below:*

**Inspection**



- Inspect regularly on magnet power and wear;
- Inspect regularly whether warning pictograms and identification plate / sticker / etching are still present and readable;

**Cleaning**



- Magnetic systems attract dust and ferromagnetic material, so regularly cleaning is necessary to prevent for further damage.



**Wear security gloves, glasses, and other necessary safety clothing while cleaning the magnet!!!**

**Replace / Revise**



- Replace worn out or broken parts immediately.
- Also replace any warning pictograms immediately if they are damaged or lost.



**Magnet system**

Wear caused by abrasive belt can be minimized by coating with a protective coating.  
For information, consult: **GOUDSMIT magnetic systems**

- When the magnetic surface of the magnet rail is bumped, then probably the magnets inside are damaged to.

**Bumped magnets** should be revised or replaced, to prevent for further damage inside the magnet system and for the magnetic force lowering as a consequence.

**Malfunctions/Service**

**CAUTION!**

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
Magnet does not attract the ferromagnetic cans, lids, caps, plates or other product, or attracts them too little.	Not attracted products are not (enough) ferromagnetic.	Check if particles to be transported are (enough) ferromagnetic, using a small permanent magnet. <ul style="list-style-type: none"> <li>• not attracted: the particles cannot be separated with a (any) magnet.</li> <li>• slightly attracted: possibly a magnet with a higher capacity can do the job, so contact Goudsmit for consultancy.</li> </ul>
	In case of cans, the cans are not placed with bottoms on the belt (towards the magnets), causing them to have too little ferromagnetic material to attract.	Place cans with bottoms on the belt.
	Belt is too thick, causing the product to be too far away from the magnets to get attracted.	<ol style="list-style-type: none"> <li>1. Use a thinner belt, The thinner the better the attraction.</li> <li>2. Use stronger magnets when belt cannot be thinner.</li> </ol>

**Customer service**

Please have the following information available if you require customer service assistance:

- 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:

Only the slide plate of the magnet might have to be replaced/revised after time, when constantly submitted to an abrasive belt.

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.