

# Operating instructions

for a MEIKO – round belt transport system  
with vertical conveyor

Type RF with VF - P (platform)

Type RF with VF - G (fork)

**TRANSLATION OF THE "ORIGINAL OPERATING INSTRUCTIONS"**

The original operating instructions can be downloaded from: <https://partnernet.meiko.de>





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## 1 Introduction and general instructions

Dear customer,

We are very pleased about your confidence in our products.

Wishing you much pleasure when working with the products of Mssrs. MEIKO, we are sure that they make your work a great deal easier and are of great service to you.

If you follow these instructions exactly, your transport system will always work to your entire satisfaction and have a long service life.

The transport system was installed in our factory and completely checked. Thus making us sure and gives you the guarantee that you always get a perfected product.

**We would therefore ask you to read these operating instructions carefully before using the installation. Any further associated operating instructions for accessories and integrated third-party products must be strictly observed!**

These operating instructions inform users of this installation about the installation, its operating methods, its use, the safety instructions and the maintenance.

These instructions help you to get detailed knowledge about the installation and to use it correctly. Besides, you could spare evtl. repair works and the loss of working hours resulting thereof.

We can accept no responsibility for damages caused by the failure to observe these instructions. We decline any liability for following damages resulting thereof.

MEIKO operates a policy of continuous development on all its appliances.

Please understand that we reserve the right to change the type, equipment and technical execution of the delivery at any time.

Information, illustrations and descriptions contained in this booklet may be superceded.

Should any further information be required or special problems arise which are not described in detail, please contact the responsible MEIKO-agency.

Further, we draw your attention to the fact that the content of these instructions makes not part of a former or existing agreement, promise or legal relationship and does not modify such a point.

All obligations of MEIKO result out of the resp. sales contract, which also contains the complete and only valid warranty regulation.

The operating instructions must exist in the local language for each EU country. if this is not the case, the conveyor system must not be commissioned.

The original operating instructions in Germany, and all operating instructions in all languages for EU countries can be downloaded from the following address: <https://partnernet.meiko.de>

The complete technical documentation is issued to you free of charge. Additional copies will be charged at cost.

The contractual warranty regulations are neither extended nor limited through these instructions.

Mssrs. MEIKO wish you much pleasure and success.



### 1.1 Safe keeping of instructions

Always keep the operating instructions next to the installation!  
The operating instructions must always be kept ready to hand!

### 1.2 Name and address of manufacturer

In case of further questions, technical problems, etc. contact directly:

**MEIKO Maschinenbau GmbH & Co. KG**  
Englerstraße 3  
D - 77652 OFFENBURG  
Telefon +49 / 781 / 203-0  
Telefax +49 / 781 / 203-1121  
<http://www.meiko.de>  
[info@meiko.de](mailto:info@meiko.de)

or:

Name and address of MEIKO-agency or dealer

(Enter company's stamp or address)

### 1.3 Designation of installation type

In case of questions and/or spare parts orders, please always indicate:

Type: \_\_\_\_\_

SN: \_\_\_\_\_

 \_\_\_\_\_

This information can be found on the plate.

## 2 Explanation of the safety symbols used

The following safety symbols are used in this booklet. These symbols should draw the attention of the reader to the text next to the safety hints.



This symbol means: danger for life and health of persons.

---



This symbol means: danger for installation, material or environment.

---



This symbol marks information contributing to a better understanding of the installation processes.

---



Warning: dangerous electrical tension!

---



Warning: injuries to hand possible!

---

### 3 General description and use for the purpose intended

#### 3.1 General description

Bi-cord conveyors are ideal for soiled tableware return.

The linear attachments of the polycord leaves virtually the whole of the conveyor surface free.

This type of soiled tableware return is greatly favoured because it allows transport of entire only, and not of individual tableware items (plates, cups, cutlery, bottles etc.), preventing them from falling off the conveyor in bends or curves and thus ensuring high levels of safety.



Bi-cord conveying technology makes any type of cornering possible.

Speeds alterations ensure the safe, centered and properly distanced transport of the around bends.

Maintenance free deflection rollers glide with minimum wear the bi-cords around all corners provided with sturdy elevated tray guides which prevent the tableware from falling off the conveyor.

Impressive solutions for a vertical system layout, the MEIKO vertical conveyors MVF-G and MVF-P:

- continuous gradual transition from the horizontal to the vertical plane
- excellent stability of the crockery items

The MEIKO infeed and outfeed system ensures gentle braking and jerk-free start-up of the trays even at high throughput rates (of up to 30 trays/min).

#### 3.2 Determined use

This transport system is **determined** to transport trays with dishes, other kind of use is not allowed.

This belt conveyor is intended solely for use in a commercial environment

If not otherwise agreed, the transport system **can be loaded with up to 5 kg/m**.

The max. speed is 20 m/min.

The admissible dimensions of trays indicated in the chapter „Technical conditions“, and all other technical specifications must be observed without exception.

If the round belt transport system is not used acc. to its' determination, a safe operation cannot be guaranteed!

For all injuries and damages to property arising of the non-determined use, not the manufacturer, but the operator of the round belt transport system is responsible!





## 4 EC Declaration of Conformity

A Declaration of Incorporation is provided with the machine if it is not supplied in fully operational state, that is, as a partially completed machine pursuant to the Machine Directive.

An EC Declaration of Conformity is provided with the machine if it is supplied in fully operational state as a complete machine.

## 4.1 CE Declaration of Conformity

**Muster** / Example / Exemple / Esempio / Ejemplo / Voorbeeld

### **EG-Konformitätserklärung**

EC Declaration of Conformity / Déclaration de conformité CE / Dichiarazione di conformità CE / Declaración de conformidad CE / CE-conformiteitsverklaring

**Firma** / Company / Société / Ditta / Empresa / Fabrikant  
**Adresse** / Address / Adresse / Indirizzo / Dirección / Adres

**MEIKO Maschinenbau GmbH & Co. KG**  
Englerstraße 3  
77652 Offenburg  
Germany

**Kontakt**  
Contact / Contact / Contatto / Contacto / Contact

Internet: [www.meiko.de](http://www.meiko.de)  
E-mail: [info@meiko.de](mailto:info@meiko.de)  
Telefon: +49(0)781/203-0

**Auftrag Nr.**  
Order no. / No. de commande / No. d'ordine / No. de pedido / Opdracht nr.

**Gewerbliche Förderanlage Typ**  
Industrial conveying system model / Convoyeur industriel modèle / Impianto di trasporto per uso industriale modello / Instalación de transporte industrial, modelo / Industriële transportband, model

**RF**

**Konformitätserklärung**  
Declaration of Conformity / Déclaration de conformité / Dichiarazione di conformità / Declaración de conformidad / Conformiteitsverklaring

**Hiermit bescheinigen wir in alleiniger Verantwortung die Konformität des Erzeugnisses mit den grundlegenden Anforderungen der folgenden EG-Richtlinien, harmonisierten Normen, nationalen Normen.**

We hereby declare at our sole responsibility that the product conforms to the essential requirements of the following EC Directives, harmonized standards, national standards.

Par la présente nous certifions sous notre seule responsabilité la conformité du produit avec les exigences fondamentales des directives CE, normes harmonisées et normes nationales suivantes.

Con la presente dichiariamo sotto la nostra responsabilità la conformità del prodotto con i regolamenti basilari delle seguenti direttive CE, normative armonizzate e normative nazionali.

Por la presente declaramos bajo nuestra sola responsabilidad que nuestros productos están en conformidad con las exigencias básicas de las siguientes directivas de la CE, normas homologadas y normas nacionales.

Hiermee verklaren wij onder geheel eigen verantwoordelijkheid de conformiteit van het product met de fundamentele en gestelde eisen volgens EG-richtlijnen, geharmoniseerde normen en nationale normen.

**EG-Richtlinie** / EC Directive / Directive CE / Regolamento CE / Directiva CE / EG-richtlijn

**2006/42/EG / 2014/30/EU**

**Dokumentationsbevollmächtigter**  
Responsible for documentation / Responsable de la documentation / Responsabile della documentazione / Responsable de la documentación / Voor deze documentatie verantwoordelijk

Viktor Maier  
**MEIKO Maschinenbau GmbH & Co. KG**  
Englerstr. 3 - 77652 Offenburg - Germany

**MEIKO Maschinenbau GmbH & Co. KG**

**ppa.**  
(per procura)

Dr. Thomas Peukert  
**Leiter Entwicklung und Konstruktion**  
Head of Development-Design / Responsable Développement-Construction / Direttore Sviluppo-Costruzione / Jefe de la sección de desarrollo y diseño / Chef Ontwikkeling-Constructie



## 4.2 Declaration of incorporation

Muster / Example / Exemple / Esempio / Ejemplo / Voorbeeld

### Einbauerklärung

Declaration of incorporation / Déclaration de montage / Dichiarazione di montaggio / Declaración de montaje / Inbouwverklaring

**Firma** / Company / Société / Ditta / Empresa / Fabrikant:

**Adresse** / Address / Adresse / Indirizzo / Dirección / Adres:

#### Kontakt

Contact / Contact / Contatto / Contacto / Contact

**MEIKO Maschinenbau GmbH & Co. KG**

Englerstraße 3

77652 Offenburg Germany

Internet: www.meiko.de

E-mail: info@meiko.de

Telefon: +49(0)781/203-0

#### Auftrag Nr.

Order no. / No. de commande / No. d'ordine / No. de pedido / Opdracht nr.:

#### Maschinentyp

Machine type / Modèle machine / Tipo di macchina / Tipo de máquina / Machinemodel

#### Einbauerklärung für eine unvollständige Maschine

Declaration of incorporation for partly completed machinery / Déclaration de montage pour une machine incomplète / Dichiarazione di montaggio per una macchina incompleta / Declaración de montaje de incorporación para una máquina incompleta / Inbouwverklaring voor een onvolledige machine

#### Hiermit bescheinigen wir:

We herewith certify / Nous certifions par la présente / Con la presente attestiamo / Por la presente certificamos / Hiermee verklaren wij:

**dass die zum Einbau in Maschinen vorgesehenen Produkte oder Baugruppen mit den grundlegenden Sicherheits- und Gesundheitsschutzanforderungen nach Anhang I der Maschinenrichtlinie 2006/42/EG übereinstimmen. Die speziellen technischen Unterlagen gemäß Anhang VII B (für unvollständige Maschinen) wurden erstellt und werden der zuständigen Behörde auf Verlangen in elektronischer Form übermittelt.**

that the product or sub-assemblies that are intended for installation in machines complies with the fundamental health and safety requirements in accordance with Annex I of the Machine Directive 2006/42/EG. The special technical documents have been created according to Annex VII B (for partly completed machinery) and shall be transferred to the responsible authority in electronic format when requested.

que les produits et modules destinés au montage dans des machines satisfont aux exigences fondamentales en matière de sécurité et de santé conformément à l'annexe I de la directive sur les machines 2006/42/CE. Les dossiers techniques spécifiques conformément à l'annexe VII B (pour les machines incomplètes) ont été rédigés et seront transmis sur demande aux autorités responsables sous forme électronique.

che i prodotti o gruppi di componenti previsti per il montaggio in macchine corrispondono ai requisiti essenziali di sicurezza e di tutela della salute secondo l'allegato I della Direttiva Macchine 2006/42/CE. La documentazione tecnica speciale secondo allegato VII B (per macchine incomplete) è stata creata e sarà trasmessa su richiesta e in forma elettronica all'ente responsabile.

que los productos o grupos previstos para la incorporación en máquinas cumplen con los requisitos básicos de seguridad y protección de la salud, conforme al anexo I de la directiva de máquinas 2006/42/CE. Se han confeccionado los documentos técnicos especiales conforme al anexo VII B (para máquinas incompletas), que se entregarán a las autoridades competentes en forma y por vía electrónica, en caso de solicitarlo las mismas.

dat de voor inbouw in de machine bestemde producten of bouwgroepen voldoen aan de fundamentele eisen met betrekking tot de veiligheid en bescherming van de gezondheid conform bijlage I van de machinerichtlijn 2006/42/EC. De speciale technische documentatie is conform bijlage VII B (voor onvolledige machines) opgesteld en wordt desgewenst in elektronische vorm ter beschikking gesteld aan de verantwoordelijke instanties.

#### die Konformität mit den Bestimmungen folgender weiterer EG-Richtlinien:

the conformity with the provisions of the following additional EC Directives:

la conformité avec les dispositions des directives européennes supplémentaires suivantes:

la conformità alle disposizioni delle seguenti ulteriori direttive CE:

la conformidad con las disposiciones de las siguientes directivas de la CE adicionales:

de conformiteit met de bepalingen van de volgende aanvullende EC-richtlijnen:

**2014/30/EU**

#### Die vorgenannten speziellen technischen Unterlagen können angefordert werden bei:

The above mentioned technical documentation can be requested from:

Les documents techniques spécifiques précités peuvent être demandés auprès de:

La suddetta documentazione tecnica speciale può essere richiesta presso:

Los documentos técnicos especiales reseñados con anterioridad se pueden solicitar a:

De bovengenoemde speciale technische documentatie kan worden opgevraagd bij:

#### Dokumentationsbevollmächtigter

Responsible for documentation / Responsable de la documentation / Responsabile della

documentazione/ Responsable de la documentación / Voor deze documentatie verantwoordelijk

Viktor Maier

**MEIKO Maschinenbau GmbH & Co. KG**

Englerstr. 3 - 77652 Offenburg - Germany

**Die Inbetriebnahme ist so lange untersagt, bis festgestellt wurde, dass die Maschine oder Anlage, in welche die o.a. unvollständige Maschine eingebaut werden soll, den Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht.**

Commissioning is prohibited until it has been determined that the machine or system into which the partially completed machinery specified above is to be incorporated also complies with the provisions of the Machinery Directive 2006/42/EC.

La mise en service de la machine est interdite jusqu'à ce qu'il ait été déterminé que la machine ou l'installation dans laquelle la machine incomplète susmentionnée doit être montée respecte les dispositions de la directive relative aux machines 2006/42/CE.

La messa in funzione è vietata fino a che non sia stato accertato che la macchina o l'impianto, in cui deve essere installata la suddetta macchina incompleta, risponda alle disposizioni della Direttiva Macchine 2006/42/CE.

La puesta en marcha estará prohibida hasta que no se haya determinado que la máquina o instalación en la que se pretenda incorporar la máquina incompleta indicada arriba cumpla las disposiciones de la directiva de máquinas 2006/42/CE.

De inbedrijfstelling is niet toegestaan voordat is vastgesteld dat de machine of installatie waarin de o.a. onvolledige machine moet worden ingebouwd aan de bepalingen van de machinerichtlijn 2006/42/EC voldoet.

**MEIKO Maschinenbau GmbH & Co. KG**

ppa. (per procura)

Dr. Thomas Peukert

**Leiter Entwicklung und Konstruktion**

Head of Development-Design / Responsable Développement-Construction / Direttore Sviluppo-Costruzione /

Jefe de la sección de desarrollo y diseño / Chef Ontwikkeling-Constructie



## 5 Technical conditions

Tray dimensions:	
Min. - max. length:	425 - 530 mm
Min. - max. width:	325 - 370 mm
Max. load:	5 kg / meter
Transport speed min.:	4 meter / min. (approx. 8 trays / min.)
Transport speed max.:	20 meter / min. (approx. 30 trays / min.)
Ascent:	8% (80 mm / meter)
Slope:	8% (80 mm / meter)
Width of conveyor table:	500 mm (standard)
Transport height:	915 mm (standard)
Transport height:	865 mm (standard)

Differing conditions regarding the admissible load or other technical conditions must be agreed with Mssrs. MEIKO.

## 6 General safety rules

### 6.1 Operator's duty of care

The round belt transport system was designed and constructed under consideration of a danger analysis and a careful selection of the harmonized standards to be observed as well as of further technical specifications. The system corresponds to the latest state of technique and guarantees maximum safety.

The safety can only be guaranteed during operation if all necessary measures are taken. The operator's duty of care comprises the planning of these measures and the supervision of their observance.



**ATTENTION!**

After the installation, setting in operation and handing-over of the round belt transport system to the customer/operator further modifications are not allowed (f. ex. electrical changes or changes in location). Any modifications to the round belt system without the written approval of MEIKO or undertaken by unauthorized persons will invalidate any right to claim and product liability.

#### The operator must especially make sure that ...

... the round belt transport system is only used acc. to its' determination. In case of other use or operation, damages or danger may arise for which we decline any responsibility (cf. chapter „Determined use“).



**ATTENTION!**

... function and safety are guaranteed by using original parts from the manufacturer. The user loses all evtl. claims if the system was altered with others than original spare parts.



... function and safety are guaranteed by using original parts from the manufacturer.

The user loses all evtl. claims if the system was altered with others than original spare parts.



**ATTENTION!**



**ATTENTION!**

... only sufficiently qualified and authorized personnel operates, maintains and repairs the system.



**ATTENTION!**

... the personnel is regularly instructed regarding working safety and environmental protection, and that the operation instructions and especially the safety regulations are known to them.



**ATTENTION!**

... the system is only operated in a functional state and that particularly the safety fittings are regularly checked for function.



**ATTENTION!**

... the required necessary protective equipment for maintenance and repair personnel is available and worn.



**ATTENTION!**

... that all safety and warning notes attached to the system are not removed and that they are legible.

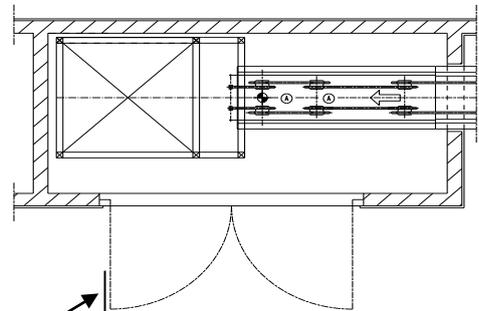


**ATTENTION!**

... in case of walled-in vertical conveyors with access through a door, this door must always remain closed. Only instructed persons are allowed to use a key.

This room must not be used as a storeroom or storage area for cleaning agents, etc... .

Observe the warning sign **“ATTENTION DANGER”** on the door (order no. 9611928) and do not remove it!



## 6.2 Basic safety measures

### 6.2.1 Basic safety measures for standard operation

The system must only be operated by instructed and authorized personnel, knowing the operation instructions and working acc. to these instructions!



**ATTENTION!**

Because of the danger of entrapment by the conveyor and the dishes when the conveyor is in motion, operating staff must not wear tight-fitting clothing; they must also remove rings, bracelets and similar articles. We also recommend wearing safety shoes with steel toe caps!

#### Before setting the installation in operation make sure that

- only authorized persons are in the working area.
- nobody could be injured by setting the installation into operation!

#### Before each setting in operation

- check the system for visible damages and make sure that it is only operated in an irreproachable state!  
Faults must immediately be reported to the superior!

remove material/parts out of the working area which are not necessary for the operation of the system!

- check and make sure that the safety equipment is irreprochably functioning!

### 6.2.2 Basic safety measures before each acknowledgement

After a switching off the reason why must be cleared and the trouble remedied. Only then the acknowledgement key 8.2.3 position 3 may be activated. In case of non-observance of the order the danger of a crash arises.

### 6.2.3 Basic safety measure for maintenance

Observe the maintenance intervals prescribed in the operating instructions!

Observe the maintenance instructions for the individual components!

Close the access to the working area for unauthorized persons before executing maintenance or repair works. Attach or put up a sign drawing the attention to the maintenance or repair works.



**ATTENTION!**



**WARNING!**

Before starting maintenance and repair works switch off the main switch for the power supply and make it secure by means of a padlock! The key belonging to this lock must be in the hands of the person executing the maintenance or repair works! In case of non-observance grievous bodily harm or damages could occur.

Before starting maintenance and repair works, make sure that all parts which may have to be touched are cooled down to room temperature!

Lubricants, cooling or cleaning agents endangering environment must be properly disposed!

**WARNING!**

### 6.2.4 Works on the electric fittings

Repair works and remedies at the electrical equipment of the system must be executed by a trained electrician acc. to VDE 0106, paragraph 3.2.1!

Electrical equipment must be regularly checked!

Fix loose connections!

Damaged lines/cables must be immediately exchanged!

Switch cabinet must always be close! Access is only allowed to authorized persons with key/tools!

Electrical parts, switch cabinets and other housing of electrical fittings must not be sprayed with a water hose or high-pressure water hose. (DIN57700 / VDE0700 part 58 and regulations for prevention of accidents).

### 6.2.5 Before setting in operation - after maintenance and repair works

Before setting in operation, after maintenance and repair works:

- check loose screw connections for tightness!
- make sure that removed sieves, panels or accident preventing fittings are incorporated again!

**ATTENTION!**

**After having finished the maintenance and repair works and before re-setting the round belt transport system in operation, make sure that**

- all materials, tools and other equipment necessary for the execution of the maintenance and repair works are no longer within the operation area of the system.
- liquids which have eventually escaped are removed.
- all safety fittings of the system are irreprochably functioning!

### 6.2.6 Observe the environment protecting regulations

During all works at and with the machine the legal duties to avoid garbage and reg. a proper recycling/disposal must be observed!

Please observe especially during installation, repair and maintenance works that water endangering matters as:

- lubricating grease and oil
- hydraulic oils
- cooling agents
- dissolvent cleaning liquids

are not charging the soil or entering the sewerage system. These substances must be kept, transported and collected in suitable containers and correspondingly disposed!

### 6.3 Notes - tray on-set section

Please observe signs for users!

## 7 Assembly instructions (for a partially completed machine)

These apply where the MEIKO product is a partially completed machine in the sense of the Machinery Directive (Directive 2006/42/EC).

Observe the following items when connecting MEIKO products to an existing conveying system/washing machine:

- The components must be aligned with one another, connected in an appropriate manner, and fastened so that safe operation is assured. (Choose conditions and fasteners on site in line with this).
- Dangers (e.g: drawing in, crushing, shearing or cutting) that potentially arised due to the connection must be safeguarded appropriately.
- The electrical connection to the supply grid on site, and any necessary electrical connections must be implemented in line with the enclosed wiring diagram.
- During installation, make sure that you avoid damage, in particular to the electrical installation.
- After completing the works, check the system for damage.
- Safety and functional tests must be performed in the scope of testing the complete system at the latest.
- The system is supplied with slide rails to optimise the transition point where applicable.

### Working on the electric fittings



#### **DANGER!**

**Risk of injury due to electric shock**

Work or repairs to the electrical equipment of the system must be conducted by a qualified electrician!

The wiring diagram for the partially completed machine delivered contains all necessary operational shut-offs known to the manufacturer MEIKO, as well as other known, necessary shut-offs and electrical connections. The connectors are clearly indicated in the wiring diagram. Always make sure that these connections are implemented prior to commissioning the machine, and that they work reliably.

If any unknown sources of danger that are not described by MEIKO arise due to connecting system parts, you must eliminate them; this may potentially mean that you must operate the machine.

## 8 Delivery, transport, installation and assembly

### 8.1 Delivery

Check that all the items listed on the shipping documents and the MEIKO order confirmation make actually part of the delivery.

Complain immediately about missing parts to the forwarding agent and inform Mssrs. MEIKO.



Check the complete installation for transport damages.

In case of suspicion on transport damages, please inform immediately in writing:

- the forwarding agent,
- Mssrs. MEIKO

and send a photo of the damaged parts to Mssrs. MEIKO.

### 8.2 Transport

- To avoid damages at the machines or highly dangerous injuries during the transport of the installation, the following points must absolutely be observed:

- Transport works must only be executed by qualified personnel under observance of the safety rules.

To assure a safe transport, all installation parts are supported by a special wooden square frame.

The transport into the wash-up area should be effected on this wooden frame, by means of a lifting trolley or fork-lifting trolley.

- Also read the chapter "General safety rules".

### 8.3 Installation and assembly

In accordance with your requirements MEIKO supplies an installation drawing showing the positioning, the connection and consumption ratings.

The installation and assembly of the appliance must be effected acc. to this installation drawing.

The transport conveyor must only be installed at the planned location - on feet or wall consoles - and only by specialists.

To avoid a moving of the installation, especially in the wash-up area, it must be fixed to the floor.

The place of installation can only be altered with approval of Mssrs. MEIKO.

Should you intend to install and assemble the installation yourself, please ask for detailed and exact installation and assembly instructions.

The installation must be connected **only** by specialists.

We decline any responsibility for damages caused by incompetent connections.



**ATTENTION!**



**ATTENTION**

### 8.4 Instructions for disposal of packing material

- The wooden square frame consisting of untreated, raw fir / spruce wood can be either used as fire wood or as building timber.
- The plastic foil (PE - foil) can be recycled.
- The cardboard used as edge protection can also be recycled.
- The hood-casing strip made of steel can be recycled together with the steel scrap.

## 9 Special dangers

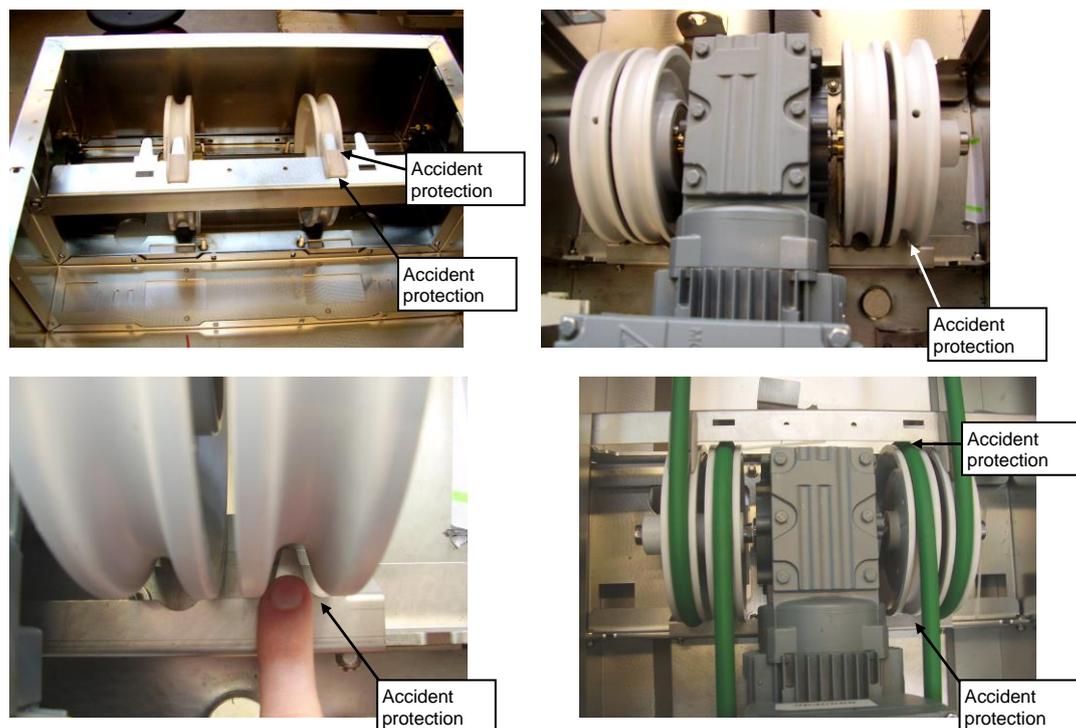
### 9.1 Accident protection at tray-onset area

If the accident protection is removed from the tray-onset area or if it is incorrectly mounted, the danger arises that somebody touches the round belt conveyor body from below so that hands could be pulled in and injured.



On the photo you can see the position, how the accident protection is mounted on the front side and below.

To avoid accidents and injuries, please take care that the accident protection is not removed!

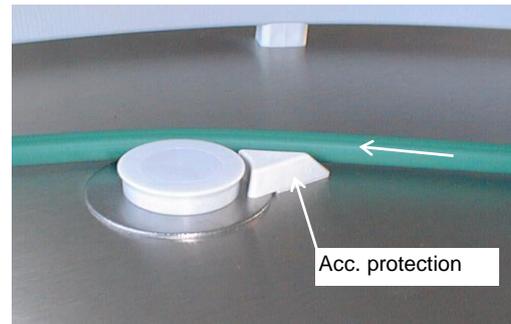
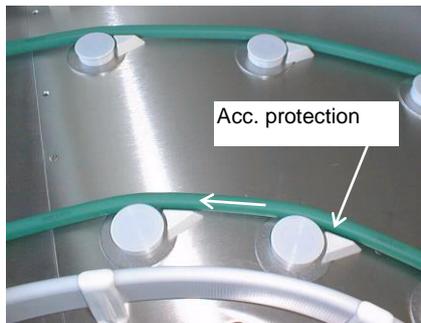


## 9.2 Accident protection at the curve guiding rollers

If the accident protection is removed from the curve guiding rollers, fingers could be pulled in and injured.

On the photo you can see the position of the accident protection.

To avoid accidents and injuries, please take care that the accident protection is not removed!



## 9.3 Accident protection in the curves

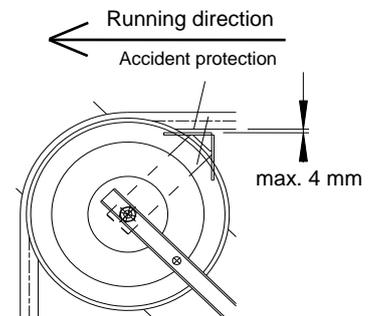
The accident protection of the curve is situated below the conveyor belt.

If the accident protection is removed from the curves or if it is incorrectly mounted, the danger arises that somebody touches the round belt conveyor body from below so that the hands could be pulled in and injured.

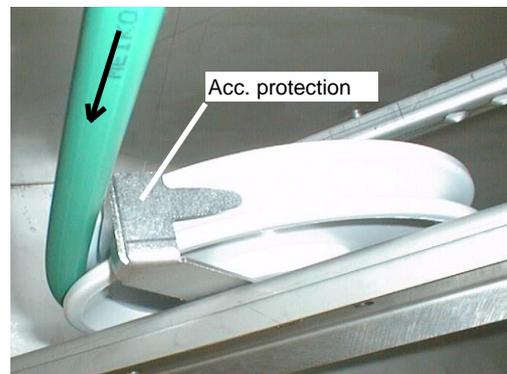
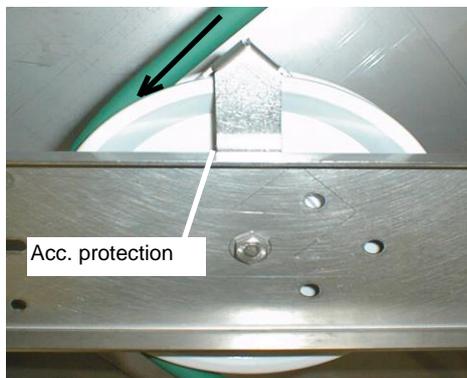
The accident protection must be mounted acc. to the drawing.

Please observe that .....

- the accident protection is incorporated in the correct edge, in running direction which means in the edge where the round belt touches the disc at first.
- the max. width of the air gap between the round belts and the accident protection is 4 mm.



To avoid accidents and injuries, please take care that the accident protection is not removed!



## 9.4 Cladding sheets on the vertical conveyor

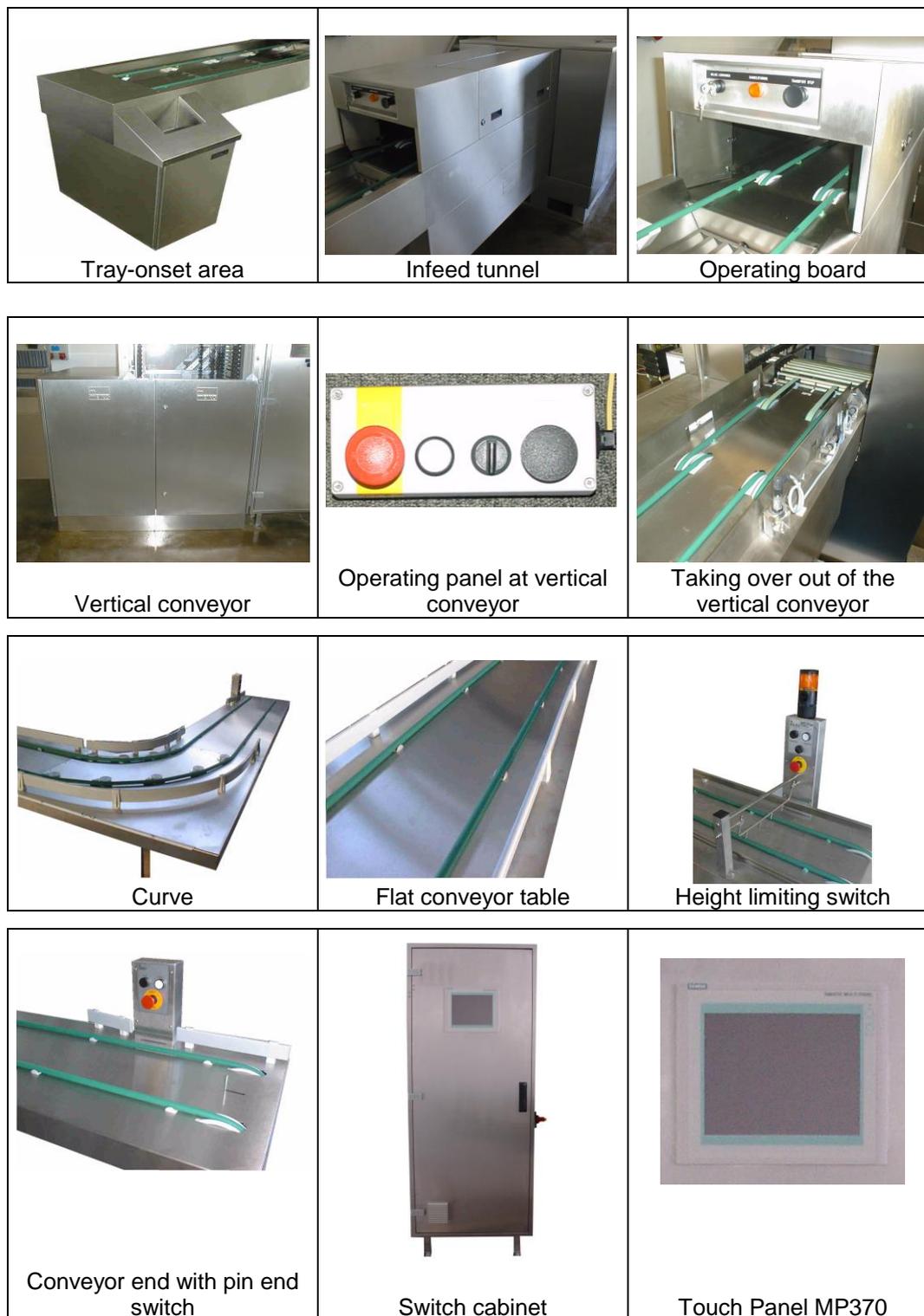


The perforated cladding sheet on the vertical conveyor is intended to serve as accident prevention guard.

To avoid accidents and injuries, ensure that the accident prevention guard is not removed!

## 10 Product description

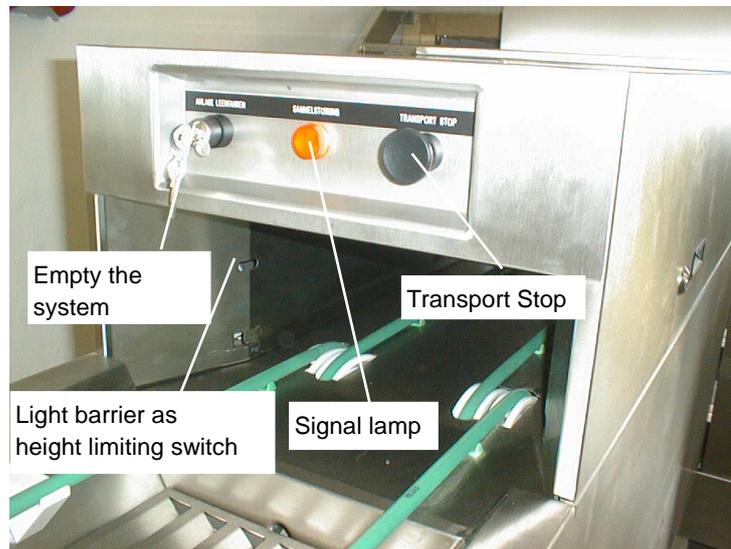
### 10.1 Construction



## 10.2 Operating elements and details

### 10.2.1 Infeed device

At the front side in the infeed tunnel there are the following indication/operating elements.



#### 10.2.1.1 Transport stop

Press the transport stop switch for switching off the tray charge. By pulling it out again the system can be re-set into operation.

#### 10.2.1.2 Signal lamp

The flashing signal lamp shows a switching off along the transport distance.

#### 10.2.1.3 Empty the system

If the last tray enters the infeed device the system can be automatically emptied by shortly activating the key switch. After activation of this key the transport of the tray onset area stops. The last tray is transported to the end of the transport distance, then the system is switched off automatically.

#### 10.2.1.4 Light barrier for height limiting

The loading height of the trays is controlled by the height limiting light barrier. If this device is activated the tray-onset conveyor stops. After having removed the excessive load the tray onset starts automatically.

### 10.2.2 Tunnel flap at infeed device



The tunnel flap can only be opened with a key. Only a sufficiently trained person is allowed to open the tunnel flap. This could be necessary if the self-monitoring device of the system is switched off. In case of danger the transport stop, see photo 8.2.1, must be activated. An emergency-off switch at the vertical conveyor see photo 8.2.3 Position 1, is available. After having eliminated the reason for the switch off, the flap must be locked again by means of the key.

### 10.2.3 Inspection doors at the vertical conveyor

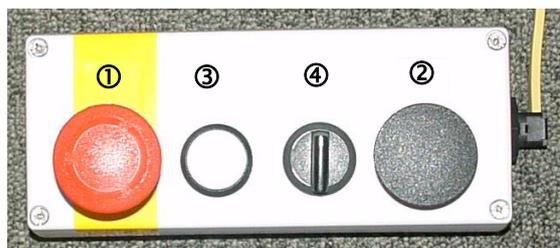
The inspection doors of the vertical conveyor are secured with a lock. In case of a switch off the the door can be opened with a key for eliminating the switch off.

Open the doors  
of the vertical conveyor  
with a key!



Behind the door of the vertical conveyor, not accessible for public, there are the following operating elements:

- ① **Emergency-off switch**  
For safety reasons there is an emergency-off switch available, switching off the complete system if it is activated.
- ② **Transport stop**  
By activating the transport stop switch the system can be stopped and started.
- ③ **Key 'Acknowledge fault'**  
for switching off the feeding and discharge section.  
After having remedied the switch-off by removing a tray or a napkin, the key 'acknowledge fault' must be pressed. Then the system starts operation again.  
**ATTENTION!** If the key 'fault' is pressed without having eliminated the reason for the switch of this may result in a crash.
- ④ **Key upwards - downwards**  
Vertical conveyor upwards, for inspection or cleaning purposes.  
Vertical conveyor downwards, for inspection or cleaning purposes.



The vertical conveyor doors must be locked with the key after removing the causes of the disconnection or after operating the switches!



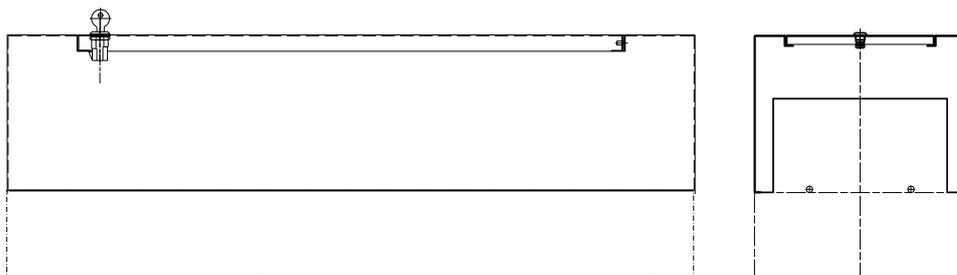
Item 4 only operates if the installation is in the OFF mode.

### 10.2.4 Discharge tunnel

The inspection flap at the discharge tunnel of the vertical conveyor is secured with two locks. For maintenance works and in case of faults the flap can be opened with a key.



Only a sufficiently trained person is allowed to open the inspection flap.



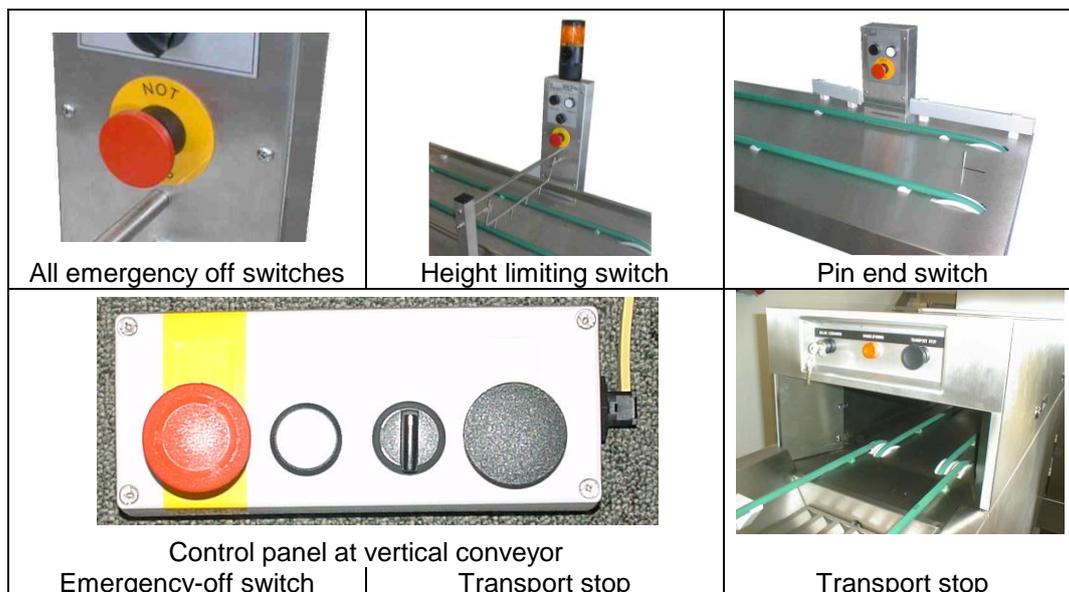
### 10.3 Function of safety fittings

To avoid damages at the systems, injuries or even death: the irreproachable function of all safety fittings must be checked

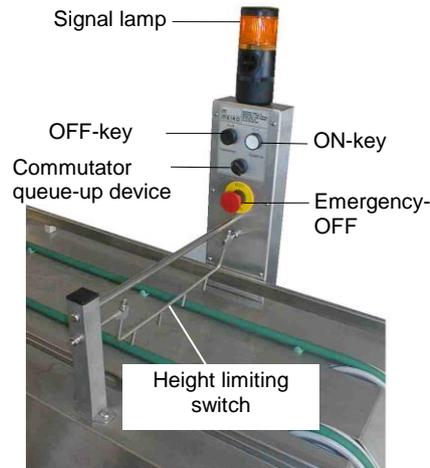


**ATTENTION!**

- before the first setting in operation,
- before the setting in operation after a longer idle period,
- and daily – before starting work –



## 10.4 Height limiting, Control board with signal lamp



At the end of the dish stripping section in the wash-up area there is a control board with integrated height limiting switch.

The height limiting switch registers all dishes protruding the tray edges.

If the end switch is activated by a dish, the system is switched off. If the registered dish is removed and the end switch free again, the system continuous operation automatically.

On the control board there are the operating elements on/off, emergency-off and if available a commutator for the queue-up device.

When activating the ON-key the system is set into operation. The system is switched off by activating the OFF-switch.

When pressing the EMERGENCY-OFF switch the complete transport system stops. By pulling out the switching button the switch becomes free. By activating the ON-key the system is set into operation. On the control board there is a signal lamp indicating all switching-off states of the transport installation.

## 10.5 Rectification of operational disconnections

The equipment has a self-protection mechanism designed to detect problems such as trays incorrectly loaded with crockery, cutlery, napkins etc. The self-protection mechanism detects, as far as possible, incorrect loading procedures, trays placed over each other or incorrectly loaded trays.

An equipment display panel is placed on the switch cabinet door so that the position of the disconnections can be very quickly located during the period when meals are being served.

In case of a disconnection a flashing light is also installed on the command position near to the crockery clearance section.

There are locked doors or removable cladding panels at both the top and the bottom of the conveyor. A group of switches is located in both areas; their functions are: Emergency off switch, transport stop, black, UP-DOWN button, an acknowledgement button for starting the equipment.

### 10.5.1 Transport systems with disconnected and cased routing

In transport systems with disconnected cased routing at the ceiling and at sites difficult to access, the following has to be observed when operational cutoffs are removed or cleaning and revision works are carried out:

- Switch off main switch!
- The casings or ceiling panels have to be removed by instructed and competent persons.
- Remove cutoff and carry out revision or cleaning works with the aid of a suited ladder or scaffold which is secured at or fixed to a bar suspension with a rope.

## 10.5.2 Sequence of events following a disconnection and its rectification

- The equipment detects that something is wrong and switches itself off.
  - The flashing light described above is the first indication of a disconnection in the conveyor system.
  - The location and cause of the disconnection can be read on the switch cabinet door.
  - An authorised person, suitably trained on the equipment, goes with the key to the disconnection location indicated.
  - This person uses the key to open the covering door.  
The equipment is inactive.
  - The cause of the disconnection, for example a napkin, must be removed. The trained person must decide whether he/she can remove the cause of the disconnection him/herself.
1. If this person is able to remove the cause of the problem him/herself, the area affected by the disconnection must be cleared.  
Once this is complete, the equipment can only be re-started by the acknowledgement button located close to the disconnection.
  2. If this person is unable to remove the cause of the problem him/herself, this person must summon the foreman or the technical department.
  3. Trolleys must be provided for the trays.
  4. Lock the doors.

In the event of a disconnection, the equipment can only be re-started using the acknowledgement button located at the disconnection display.

There is a black conveyor stop button and an EMERGENCY OFF button in the switch group for checks and operational tests.

There are UP and DOWN buttons in the switch groups; these are used by suitably trained persons when cleaning the platforms. These buttons only operate when the equipment is switched off (but not when it is switched off at the main switch). These buttons can be used to move the platforms step by step.

The following chapters in these Operating Instructions must be observed:

- The Hazard Instructions in Chapter 6
- The instructions on the removal of the causes of disconnections in Chapter 8
- Cleaning - Chapter 10.

## 10.6 Special function queue-up device

If there is no peak time, the queue-up device is switched on.

At the stripping station no personnel - permanently stripping dishes - is necessary during the queue-up operation.

The queue-up device is switched on by activating the commutator located at the ON/OFF switch of the control panel.

Commutator to be turned to queue-up operation!

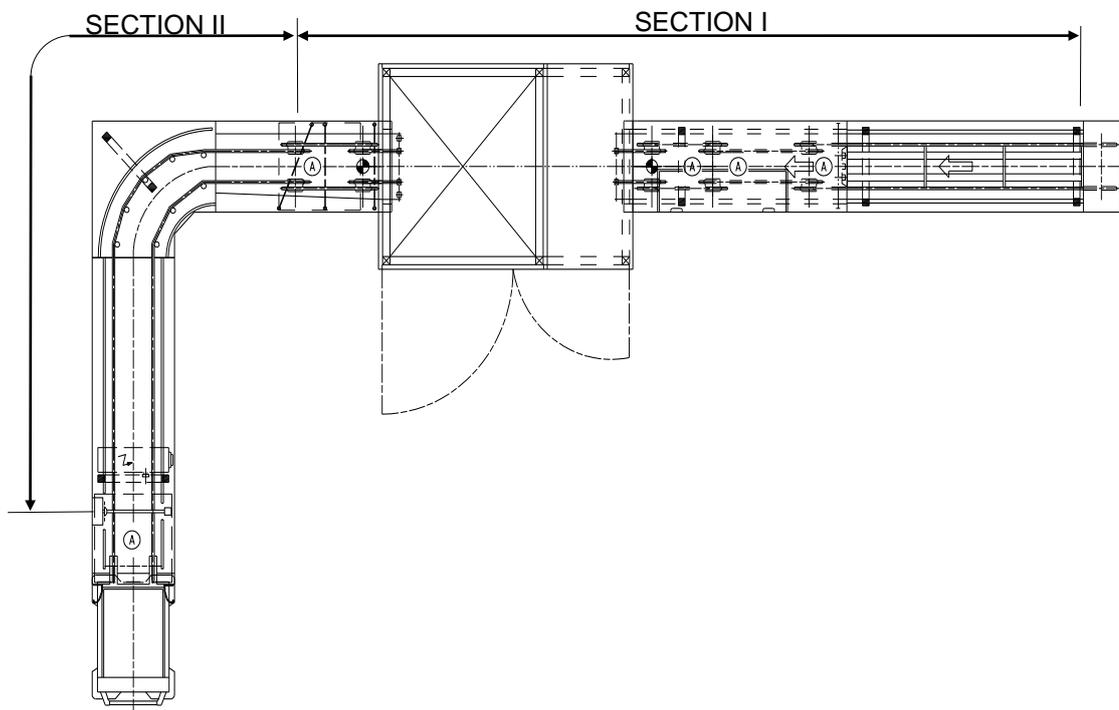
The first part of the transport distance section I (tray on-set area) is always in operation. The trays are transported up to the light barrier/light key situated at the end of section I.



Commutator for queue-up device or permanent oper.

If a tray activates the light barrier/light key, the following transport system, section II, is switched on. If a tray passes the light barrier/light key the transport system, section II, stops. This results in a serie of trays with a small distance in between.

If the first tray of the accumulated distance activates the height limiting switch at the end of the transport system, then the complete system stops and a signal horn sounds. This signal can be switched off by switching over from queue-up operation to permanent operation.



## 11 Operation

### 11.1 Setting in operation



**ATTENTION!**

To avoid damages or dangerous injuries during the setting in operation of the system, please observe the following points:

- The setting in operation must be executed by qualified personnel under consideration of the safety standards.
- When operating the transport system follow the regulation of the UVV (accident prevention rules)-permanent transport system (VBG10).
- Before the first start, check if all tools and foreign parts are removed out of the installation.
- Activate all safety fittings and emergency-off switchings before setting the system in operation.
- Read the chapter „General safety rules“.

**- Please read the supplementary "Operating Manual Touch Panel MP370" too.**

Instructions will be given by the service engineers installing the system, setting in operation will also be executed by them. The system can only be used by the operator after he has been carefully instructed.

### 11.2 Operation

The trays with the dishes are normally charged at the tray-onset area and transported into the wash-up area.

There, the trays with the dishes are sorted and loaded into the dishwashing machine.

The installation is switched on and off at the stripping and sorting stations in the wash-up area.

Acc. to the stripping system a height limiting or pin end switch is provided.

Special functions as f. ex. a queue-up device, etc. are separately described.

In the section of the tray-onset area an emergency-off switch must be provided.

Each 20 m of transport length a second emergency-off switch must be installed.

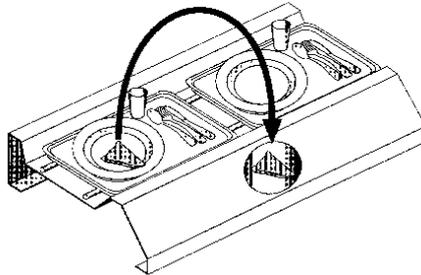
This is not necessary for the section where the conveyor is guided inside a canal.

During operation do not put your hand underneath the cords.



**ATTENTION!**

### 11.3 Tray onset (illustrations of wrongly loaded trays)

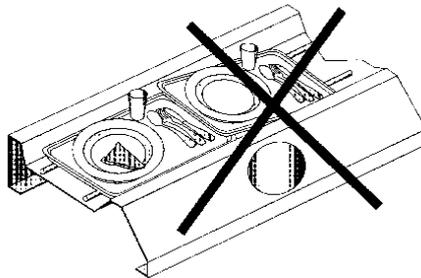


Please observe that the tray is loaded with dishes in such a way that they are not protruding the tray edges.

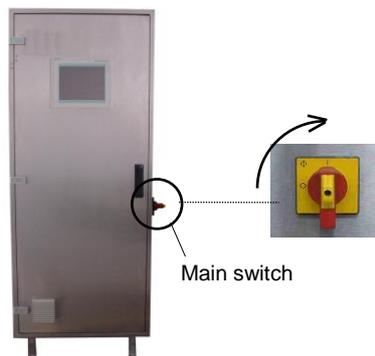
Bottles and glasses can only be safely transported in an upright position.

Trays with dishes cannot be stacked one upon the other.

Signs showing the correct loading of the trays must be attached at the tray-onset area.

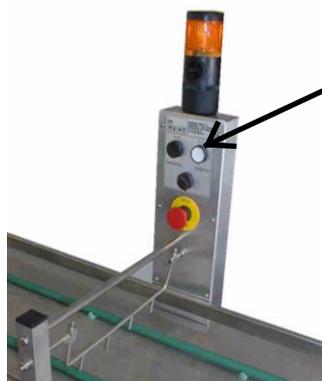


### 11.4 Setting the round belt conveyor into operation



Switch on the main switch laterally at the switch cabinet!

Main switch



Press the white push button „ON“ at the control board!

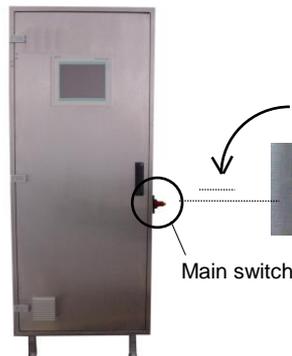
The round belt conveyor is running!

## 11.5 Setting out of operation



Press the black push button „OFF“ at the control panel!

The round belt conveyor stops!



Switch off the main switch laterally at the switch cabinet!

Now the round belt conveyor is out of operation!

By machines with fire barrier and emergency operation must the main switch of the control of the fire barrier also be put on hold by turning it on “Stop”!

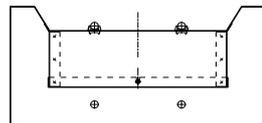
## 12 Cleaning

For a long service life of the transport system a daily thorough cleaning is very important in the tray-onset area and in the wash-up area especially in the dish stripping area.

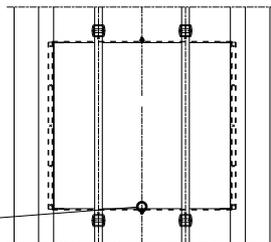
Please observe that the emergency-off or the main switch is activated in case of cleaning, inspection or maintenance works.

The removing of the safety claddings necessary for the execution of these works must then be re-set into the original state.

### 12.1 Dish chutes in the conveyor table



Dishes, food residues, napkins etc., falling down the tray during transport are collected in the conveyor table troughs.



Light key

The chutes are controlled by means of a light barrier.

In case of overload the installation is switched off.

Take care that the troughs are daily emptied.

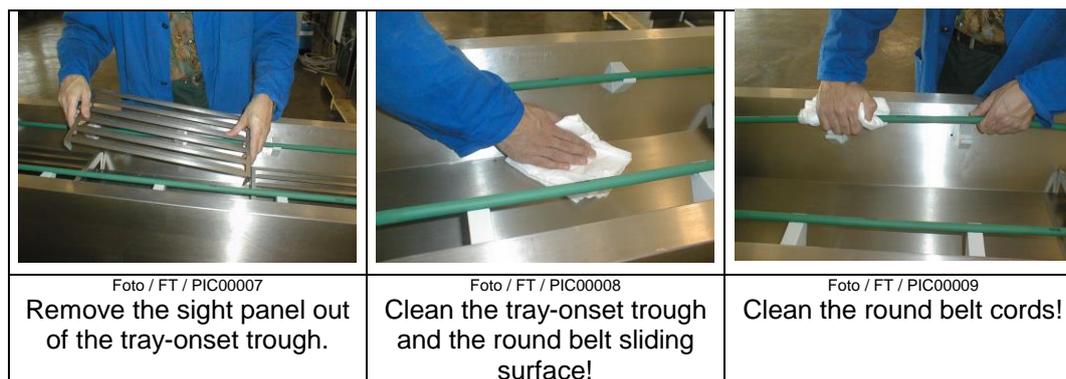
## 12.2 Daily cleaning

Adhesive dirt must be removed from the round belt sliding surface and the round belts.

Please observe that no detergents are used which will get adhesive after drying.

We recommend not to use alcoholic, acid and chloric cleaning products, as well as no disinfectants as these products would affect the bi-cords and discs..

For the cleaning ,we recommend to use a product with low alkaline concentration.



For the other transport area a weekly cleaning, as f. ex. the removing of napkins is sufficient.

For reasons of hygiene and functions the installation must be cleaned acc. to the degree of soilness.

In the drive and reverse section and near the switch cabinet the installation **must not** be cleaned by means of a high-pressure cleaning unit.

Do not spray electrical switching elements and appliances as on/off switches, drive motors, etc.

## 12.3 Care of stainless steel surfaces

We recommend cleaning the stainless steel surfaces only when needed with cleaner and care products suitable for stainless steel.

Lightly soiled parts can be wiped with a (possibly damp) cloth or sponge.

Be sure to wipe dry after cleaning to avoid traces of scale. Use demineralised water if possible.

Do not use aggressive cleaning or scouring agents.

The care products must not attack the stainless steel, form deposits, or cause discoloration.

Never use cleaning agents that contain hydrochloric acid or bleaches based on chlorine.

Never use cleaning equipment that you have used previously by non-stainless steel to avoid external corrosion.

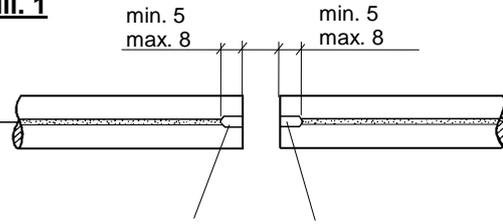
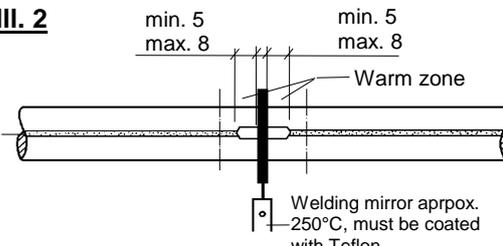
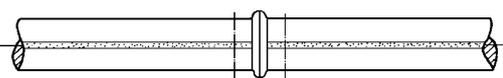
Aggressive external influences due to cleaning and care products that evaporate in the vicinity of the dish-washing machine, or caused by direct application, can lead to machine damage and put the material at risk (e.g., aggressive tile cleaners).

### Caution!

Respect the safety rules of the manufacturers on the original packing as well as on the safety data sheets.

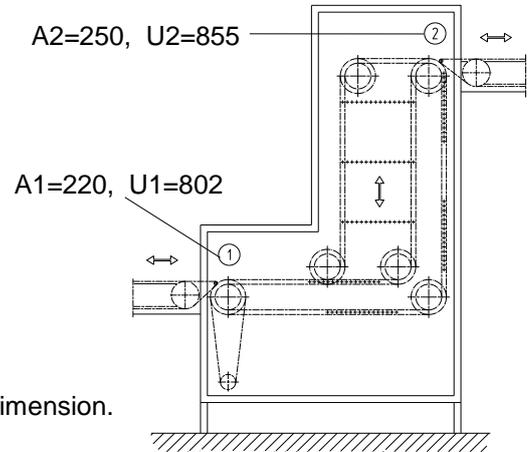
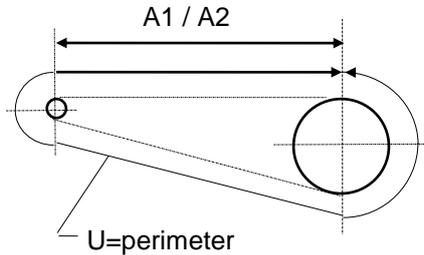
### 13 Welding instructions for a round belt with core

Both ends of the round belt cords must be smoothly and rectangularly cut off.

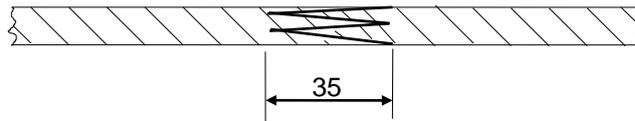
<p><b>III. 1</b></p>  <p>Bore core by means of a 4,2 mm drill. Bore chips to be completely removed (blow out).</p>	<p>Round belts must be clean and free from grease. Core to be drilled <b>acc. to III. 1</b>, bore chips must be completely removed (blow out).</p> <p>By means of a piece of string or a tension device <b>both ends</b> must be pulled together and <b>freed from stresses</b>.</p>
<p><b>III. 2</b></p>  <p>Welding mirror approx. 250°C, must be coated with Teflon</p>	<p>Welding mirror to be heated up to operating temperature (approx. 250°C).</p> <p>Ends of round belt cords must be clamped into the welding tongs.</p> <p>Both cords to be <b>heated up at the same time</b>.</p> <p>The welding surfaces must be thoroughly heated and swollen - <b>III. 2</b>.</p>
<p><b>III. 3</b></p>  <p><b>Attention!!!</b> Do not press the cords too strongly together, otherwise the cold surfaces come into contact. <b>Result:</b> The welding joint tears apart!</p>	<p><b>Press</b> the heated up round belt ends <b>only slightly</b> together until formation of a small bead. Please do not press the belts too strongly together, otherwise the cold surfaces inside may come into contact, the heated material may be pressed to the outside causing a welding of the outside surfaces only. The external welding would not resist the tension and tear apart.</p> <p>Keep on pressing during 15 minutes (<b>III. 3</b>).</p>
<p><b>III. 4</b></p> 	<p>Remove the tension device. Cut the bead. After cooling, fold the welding point sharply. If the cords present any kind of tear, they have to be welded again. Please observe that the cord tension does not exceed 1 % due to this new shortening. An overstraining of the cords could lead to a shaft or belt pulley breakage.</p>

## 14 Welding of the flat cords 20 wide with Z-connection

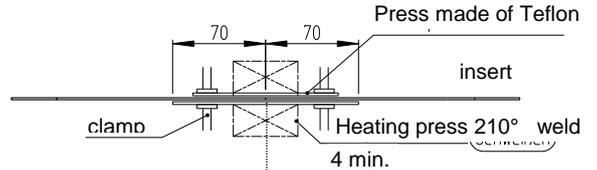
**See separately instructions 9638489**



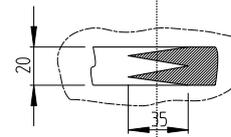
1. Bring shaft centre distance A to desired dimension.
2. Perimeter to be measured with a string or a roller meter..
3. Measured perimeter less 0,5% tension, plus 35 mm for the Z-connection..



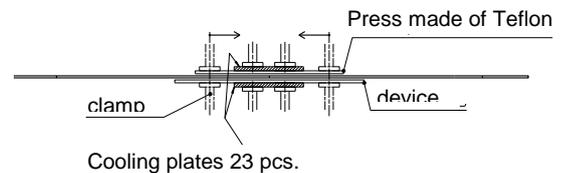
4. Insert belt into device acc. to instructions, to be fixed with clamp and pre-heated press to be put on.  
Heating time 4 min. temperature 210°C.  
(see drawing, right hand side)



5. Heating press to be removed, cooling plates 60x50 to be put on and clamps to be put above welding connection.



6. Cooling down period 10 min.
7. Residual welding to be cut off.



8. Then welding is completed. It can be immediately charged.

MEIKO item nos. for tools:	
Item	Item no.
Flat belt welding device for heating tongs SHZ6/5	8232940
Welding pressure tongs	9637759

## 15 Instructions for personnel

Only trained and instructed personnel is allowed to work at the round belt transport system.

The responsibilities of the personnel must be clearly determined, reg. operation, maintenance and repair.

Personnel to be instructed must always work at the round belt transport system under the supervision of an experienced person.

Persons	Instructed persons	Technically trained persons	Electrician	Superior with corresponding competence
<b>Work</b>				
Installation and assembly				
Setting in operation				
Operation				
Check safety fittings				
Operation				
Trouble shooting				
Remedy, mechanical				
Remedy, electrical				
Maintenance				
Cleaning				
Repair works				
Maintenance				

Only trained personnel is allowed to activate the control.

The instructions should be acknowledged in writing.

## 16 Disposal of the installation

In case of a disposal of the installation (disassembly/scraping) the components must be preferably recycled acc. to their material. Below a list of all materials arising frequently with a disassembly:

- Chromium nickel steel
- Aluminium
- Copper
- Brass
- Electrical and electronical parts
- PP and other plastic materials



## 17 Maintenance

Maintenance works must always be executed in a switched off state. Further, the main switch belonging to the transport system must be switched off and locked.

The accident protection fittings at the draw-in and crush positions (round belt reverse and curves) must be regularly checked. This should be done twice a year.

**Existing safety protections must not be disassembled!**

We recommend to conclude a maintenance contract with our agency to guarantee a long service life.

<b>Maintenance work</b>	<b>daily</b>	<b>monthly</b>	<b>quarterly</b>	<b>twice a year</b>	<b>Measured values/ work done</b>
<b>17.1 RF tray infeed</b>					
Check all bearings for quiet running, temperature and wear.			◆		
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check round belt guides for damage.				◆	
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise and ventilation.				◆	
Check tray guides in front of, in and after curves.				◆	
<b>17.2 Automatic tray infeed into the vertical conveyor</b>					
Check the light barriers and photo-electric sensors for correct operation.				◆	
Secure the light barriers				◆	
Check the flat belts for tension and damage.				◆	
Check all bearings for quiet running, temperature and wear.			◆		
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise and ventilation.				◆	
Check tray guides in front of, in and after curves.				◆	



<b>Maintenance work</b>		daily	monthly	quarterly	twice a year	Measured values/ work done
<b>17.3 Vertical conveyor</b>						
Check the inductive proximity switch for correct operation, and that it is firmly secured in position					◆	
Check the light barrier for correct operation and that it is firmly secured in position.					◆	
Check all bearings for quiet running, temperature and wear.				◆		
Type RF with VF-P	Clean the platforms between the block chains (if the platform is bowed, this must also be cleaned)		◆			
Type RF with VF-G	Clean the forks					
Type RF with VF-P	Check the platforms for damage.					
Type RF with VF-G	Check the forks for damage.		◆			
Check that the maximum distance between the inductive proximity switch and the switching rod does not exceed 3 mm.			◆			
Type RF with VF-P	Check the platform fixing in the toothed belt (check the sleeve for position).					
Type RF with VF-G	Check the fork fixing in the toothed belt (check the sleeve for position). Re-adjust the fork.		◆			
Check drive motors for noise and ventilation.					◆	
Check drive chains for lubrication, and grease if necessary.			◆			
Clean the forward and reverse guide rails.			◆			
<b>17.4 Vertical conveyor - Exit</b>						
Type RF with VF-P	Check the transfer platform height / tray conveyor					
Type RF with VF-G	Check the tray conveyor				◆	
Check the lateral tray guides for damage					◆	
Check the flat belts for tension and damage.					◆	
Check all bearings for quiet running, temperature and wear.				◆		
Check round belt pulleys for correct running and damage.					◆	
Check the light barrier and photo-electric sensors for correct operation.					◆	
<b>Maintenance work</b>						
<b>Maintenance work</b>		daily	monthly	quarterly	twice a year	Measured values/ work done
<b>17.5 Upper, covered section</b>						
Check all bearings for quiet running, temperature and wear.				◆		
Check round belt pulleys for correct running and damage.					◆	
Check round belts for damage, tension and surface condition (sticky).			◆			
Check position of return round belts in the support angle clips					◆	



Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise.				◆	
Check tray guides in front of, in and after curves.				◆	
Check the cleanliness of the equipment.				◆	
Check the light barriers and photo-electric sensors for correct operation.				◆	
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise.				◆	
Check tray guides in front of, in and after curves.				◆	
Check the cleanliness of the equipment.				◆	
Check the light barriers and photo-electric sensors for correct operation.				◆	

### 17.6 Round belt transport system in the wash-up area

Check the height limit switch for correct operation.				◆	
Check the tray stacking mechanism				◆	
Check the ON/OFF switch and the emergency OFF switch for correct operation.				◆	
Check all bearings for quiet running, temperature and wear.			◆		
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check belt guides for damage.				◆	
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise and ventilation.				◆	
Check tray guides in front of, in and after curves.				◆	
Check the switch-gear cabinet ventilator and filter, and replace if necessary.				◆	
Check the function of the electrical controls and switches for correct operation.				◆	

<b>Maintenance work</b>	daily	monthly	quarterly	twice a year	Measured values/ work done
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### 17.7 Tray junction, TZF

Check that the tray brake moves easily.				◆	
Clean the tray brake guide and spray with silicone.				◆	
Check the photo-electric sensor for correct operation and that it is firmly secured in position.				◆	
Check all bearings for quiet running, temperature and wear.			◆		
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise and ventilation.				◆	



Check tray guides for damage				◆	
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check upper and lower curve rollers for correct operation and damage.				◆	
Check drive motors for noise and ventilation.				◆	
Check tray guides for damage				◆	
<b>17.8 Tray infeed device, TST 6 / TST 7</b>					
Check drive motor for noise and ventilation.				◆	
Check all bearings for quiet running, temperature and wear.			◆		
Check round belt pulleys for correct running and damage.				◆	
Check round belts for damage, tension and surface condition (sticky).		◆			
Check round belts for even running				◆	
Check all the tray guide system				◆	
Check the lifting magnet reaction time				◆	
Tighten all fixings and connections				◆	
Check the wiring				◆	
Check all switches for correct operation, damage and that they are fixed securely in place				◆	
Check that all the functions of TST 7 work correctly together. Check infeed procedure (see "Settings for Infeed" in the TST 7 Operating Instructions)				◆	



<b>Maintenance work</b>	<b>daily</b>	<b>monthly</b>	<b>quarterly</b>	<b>twice a year</b>	<b>Measured values/ work done</b>
<b>17.9 Safety!!!</b>					
Instruct the operators thoroughly on the operation of the equipment and on "(Chapter 8.5)" Rectification of Operational Disconnections				◆	
Check that safety cladding sheets are correctly installed and securely fastened (Chapter 7)				◆	
Check whether all access doors are locked and whether the key is kept by a properly trained person.				◆	
Check whether a danger warning notice has been fixed to the access door of an enclosed vertical conveyor (see 9552501) and behind the cladding doors of the vertical conveyor (see 9548718).				◆	



## 18 Documentation vertical conveyor

Please observe the separate documentation regarding the vertical conveyor provided by Messrs. NERAK!

## 19 Fire protection

Conveyor systems leading through a fire danger zone have to be provided with a suitable fire protection. We will be always at your disposal for giving advice in case of need.

## 20 Tiltable conveyor table

A tiltable conveyor table is used if a passage is required in the transport system. It can serve for maintenance, revision, as an access to a workplace or as escape route.

### Function:

The tiltable conveyor table is equipped with two gas pressure springs which have the task of absorbing the major part of the weight of the conveyor table when the tilting function is used. Furthermore, two handles are attached to the side by means of which the tiltable table can be opened and closed. If the tiltable table is opened, the belt conveyor in front of it is switched off by means of a contact switch.

### Opening:

Firmly hold the handle at the side with your hand and swivel the table upwards to the end position. Do not remove your hand from the handle before the upper end position is reached.

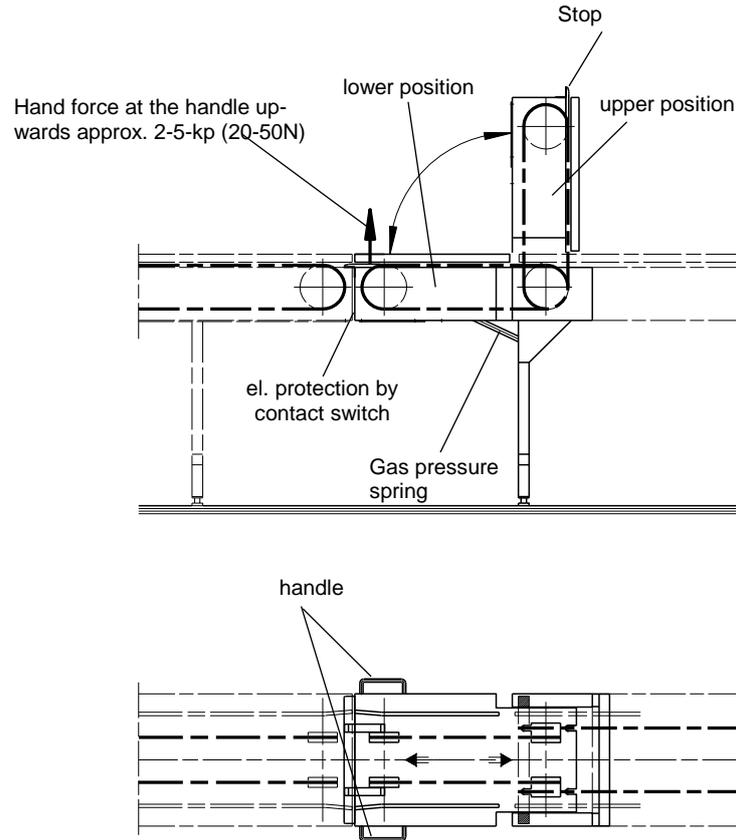
### Closing:

Firmly hold the handle at the side with your hand and evenly swivel the table downwards. Do not remove your hand from the handle before the lower end position is reached and the support angle rests on the stopped conveyor table.

### Safety note:

The conveyor belt must by no means be opened or closed jerkily without the guiding hand being at the handle.

If this is not observed, the user is liable for damages.



## 21 Escape route

Conveyor systems crossing an escape route have to be provided with a separation in a suitable section. (F. ex. tiltable conveyor table, see photo).

The separation of the conveyor system has to be effected in an emergency case as fast as possible.

We will be at your disposal in case of any further questions.

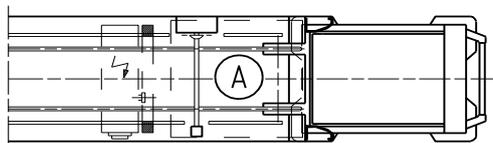


## 22 Noise level

According to the 3<sup>rd</sup> regulation of the law considering the safety of appliances the noise level is lower than 70 dB(A).

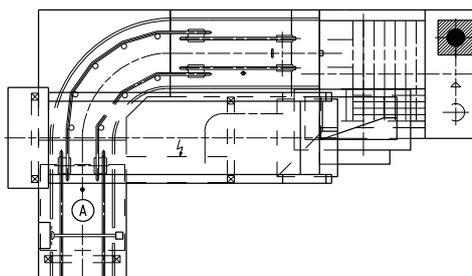


## 23 Peripheral elements for the round belt transport system



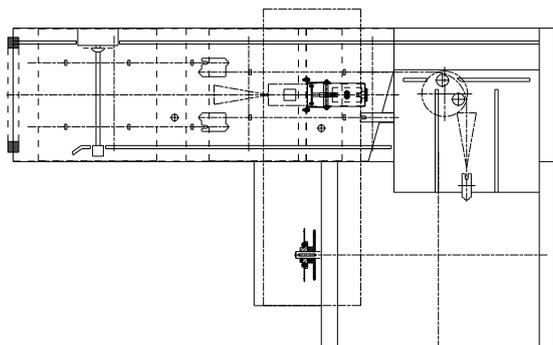
Round belt transport system with tray stacking device!

(Please observe the technical documentation for the tray stacking device!)



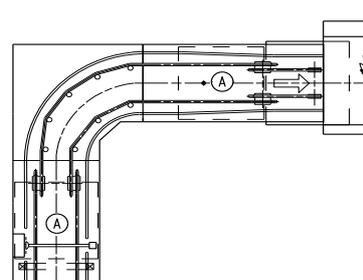
Round belt transport system with TST 6 and semi-automatic dishwashing machine (HA20 / HA30)!

(Please observe the technical documentation for the TST 6 device and the dishwashing machine!)



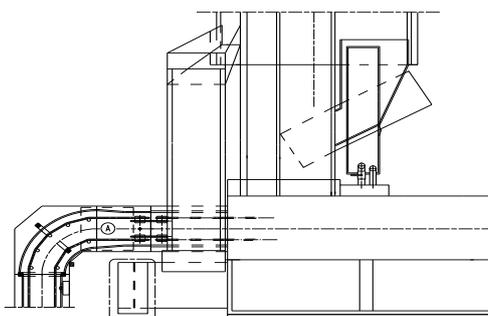
Round belt transport system with TST 7 and semi-automatic dishwashing machine (HA20 / HA30)!

(Please observe the technical documentation for the TST 7 device and the dishwashing machine!)



Round belt transport system with tray washing machine BTA 160/240!

(Please observe the technical documentation for the tray washing machine!)



Round belt transport system with fully-automatic dishwashing installation!

(Please observe the technical documentation for the dishwashing installation!)



The clean solution

**MEIKO Maschinenbau GmbH & Co. KG**  
Englerstraße 3  
77652 Offenburg  
Germany  
Tel. +49 (0)781/203-0  
[www.meiko.de](http://www.meiko.de)  
[info@meiko.de](mailto:info@meiko.de)