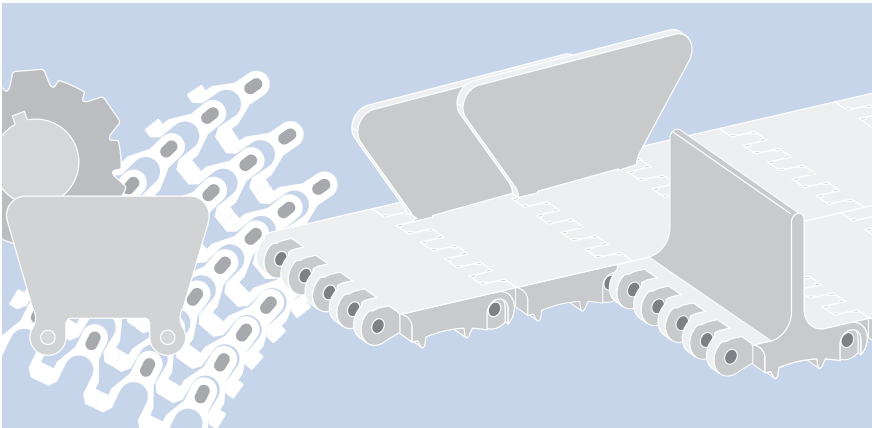


siegling prolink

modular belts

Technical information

Storage · Pre-fitting · Fitting and operation



Series

Siegling Prolink is manufactured in nine series that have been customised for different conveyor and processing tasks.

Series 1 – robust types for use in rough operating conditions. Even for high levels of pull.

Series 2 – for conveying lighter goods.

Series 3 – for lighter goods. With a very smooth surface that is stable for conveying goods, accumulation conveying and is very easy to clean.

Series 4.1 – for conveying small objects that require small end diameters on the conveyor.

Series 5/series 9 – radius belts for creating seamless combinations of straight and curved conveying lines. Extremely high level of permeability.

Series 6.1 – for hygiene-sensitive areas, modules designed to be very easy to clean without any dirt traps.

Series 7 – the strongest belt type in the Siegling Prolink range. Particularly suitable for concentrated loads and low built conveyors. Ideal for use in rough operating conditions

Series 8 – for conveying medium-weight and heavy goods in industrial applications.

You can find detailed information on Siegling Prolink modular belts and where they're used in the following brochures:

- The overview of the range (ref. no. 800)
- The data sheets on the individual series
- The information on the conveyor design (ref. no. 206)
- TecInfo 07: "Disinfectants recommended for the HACCP types"
- TecInfo 09: "Cleaning and disinfection of modular belts in the food manufacturing process".

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Pre-fitting the modular belts

Siegling Prolink belts are pre-fitted on a clean, smooth surface with the top face towards the top. Fitting plates are available for series 1 and 3 as an aid.

Longitudinal modules that are to be fitted with side guards must be prepared in the way described below.

The modules are placed according to how the belt is to be set up and each row is connected with hinge pins. (See "Fitting/removing the hinge pins").

When fitting them please note the following:

- Fit modules so that they are staggered (Fig. 1)
- Position the profiles and side modules correctly. In series 5, 7 and 9 the hinge pins are locked with clips. The side modules have to be positioned in such a way that the locks on the clips face towards the outside (fig 2). In series 5 and 9 (radius belts) the side modules on the right and left are different and can have side guards added to them.
- Make sure that side guards overlap properly (fig. 3)

Depending on the belt size, the accessibility of the conveyor and other factors, it is sometimes advisable to prefix several sections and connect them on the conveyor itself (see "Fitting").

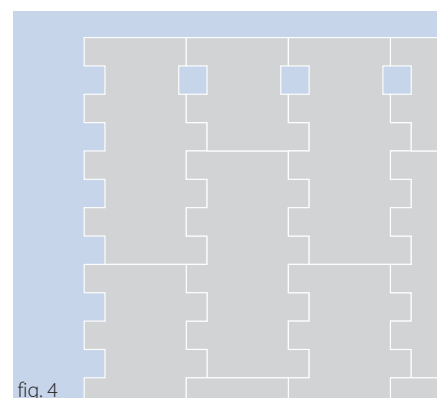
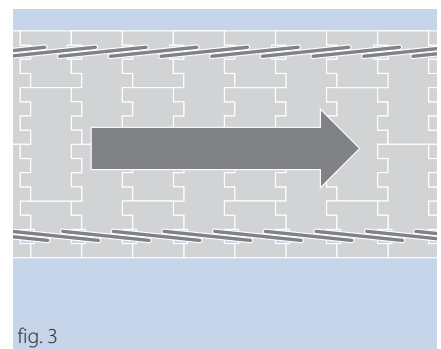
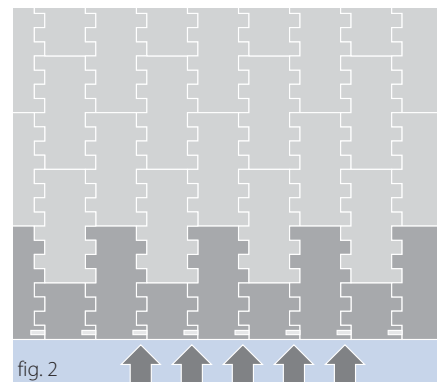
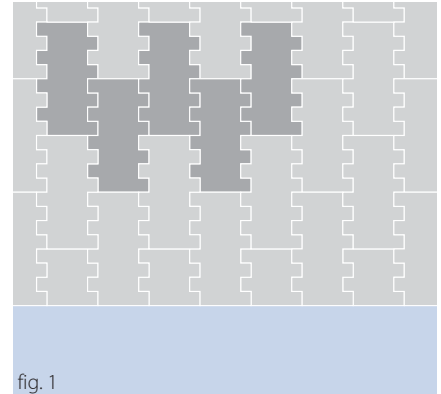
The effect of module tolerances

For belts running parallel on one shaft, modules of the same width and batch should be used, to ensure that belts are aligned and run synchronously. The same applies to belts that run parallel on different shafts and have parallel belt sections (e.g. with profiles).

Side guard preparation

In each row a modular eyelet must be removed at the place where you want to position the side guards. (fig. 4).

To do this we recommend using a special cutting tool (available from Forbo Siegling); otherwise the modular eyelet can also be sawn or milled off.



Fitting/removing the hinge pins

Caution:
only fit or remove hinge pins in
untensioned belt sections.

Series 1, 2, 3, 4.1 and 8

Hinge pins with head

Fitting:

Cut hinge pins to length and press till the stop in the hinge eyelets (fig. 5). A section with slightly increased diameter around the head helps to fix them and reduces play on the side of the belt in question. To prevent this effect from accumulating, insert the hinge pins alternating left and right.

Removing:

Pull/or press out the hinge pin from the head side.

Hinge pins without head (type A)

Fitting:

Put the hinge pin in the eyelets and cut to length so that it is flush with the edge. Create a head on both ends of the pin with a soldering iron (fig. 6).

Removing:

Cut the head off on one side and pull out or press out the hinge pin to the other side.

Hinge pin without head (type B)

Fitting:

Cut the hinge pin without head to length and put into the hinge eyelet. Secure at both sides with the hinge pin with head (fig. 7).

Removing:

Lever or pull out hinge pin at the head. Press out the extruded part with suitable rod.

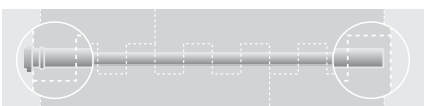


fig. 5



fig. 6



fig. 7

Series 5/Series 9

Stainless steel hinge pins

Fitting:

Put the hinge pin in hinge eyelets. Press the safety clip on both sides of the belts into the clip lock (fig. 8). The clips must lock in the grooves on the hinge pin.

Removing the unguided version:

Lever out safety clips with a thin screwdriver blade or mandril from the clip locks (fig. 9) and remove the hinge end from the side.

Removing guided version:

Select a screwdriver that fits exactly. Put the screwdriver as far as possible in the side openings of the click locks and loosen the clips by slightly turning the hinge pin (fig. 10). Lever out the clips properly and remove the hinge pin from the side.

Plastic hinge pins

Plastic extruded hinge pins are only used for linear belts of series 5 and 9.

Fitting:

Place the hinge pin in hinge eyelets and cut it to length so that is flush with the edge. Make a head on both sides of the pin with a soldering iron.

Removing:

Cut off the head on one side and remove the hinge pin to the other side.

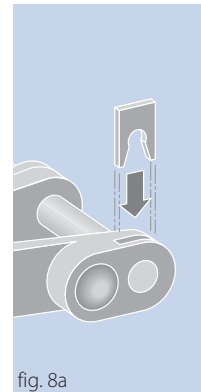


fig. 8a

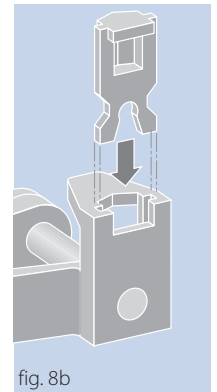


fig. 8b

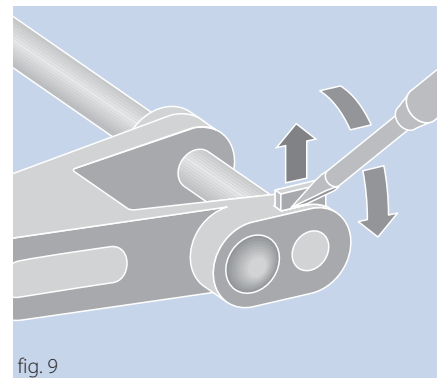


fig. 9

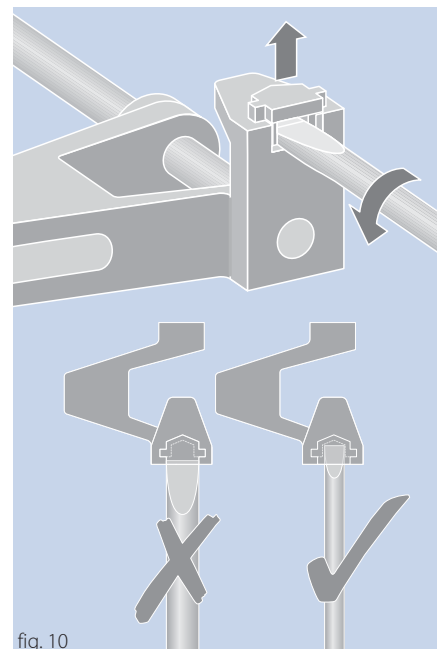


fig. 10

Series 6.1

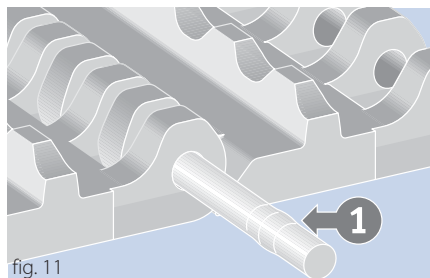
Hinge pins with shoulder

Fitting:

Cut the hinge pin to length (fig. 11) and press it completely into the hinge eyelet. A shoulder (1) at the end of the pin helps to affix and decreases the play on that side of the belt. To prevent this effect from accumulating, insert the hinge pins alternating left and right.

Removing:

Press out or pull out the hinge pin to the shoulder side.



Series 7

Hinge pins without head

Fitting:

Cut hinge pin to length and put it in the hinge eyelets. Insert the clip into the module on both sides of the belt with the safety spring (1) towards the outside (fig. 12).

Removing:

Press the safety spring on the clips with a small screwdriver towards the inside and lever out the clips (fig. 13). Press out the hinge pin with suitable rod.

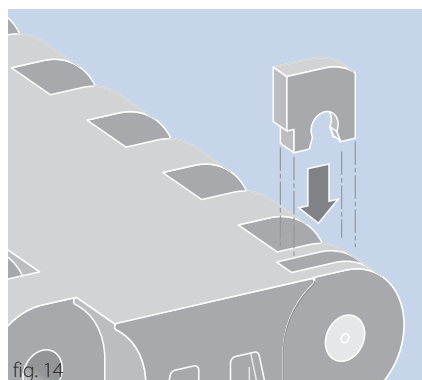
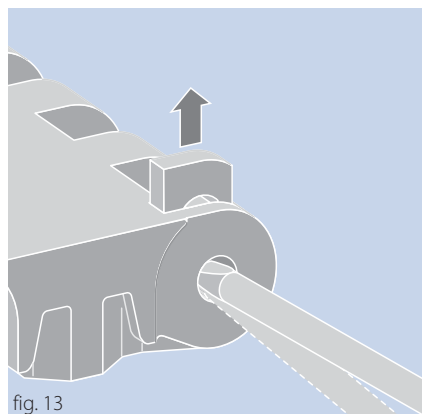
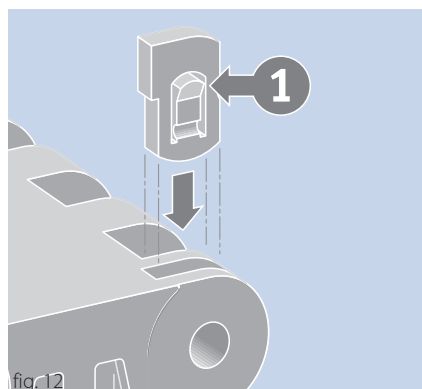
Stainless steel hinge pins

Fitting:

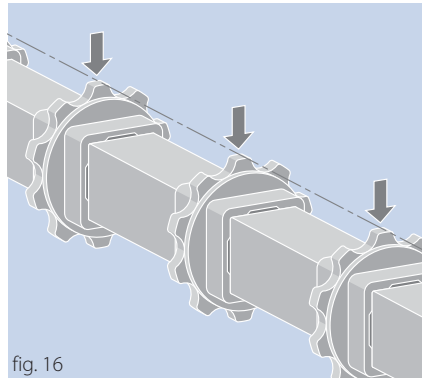
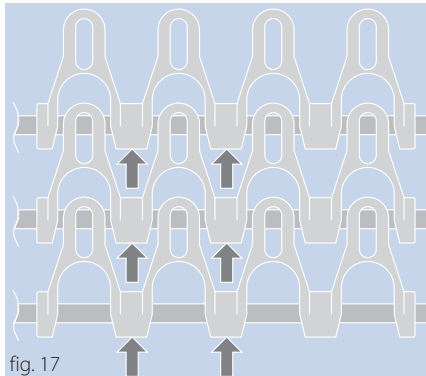
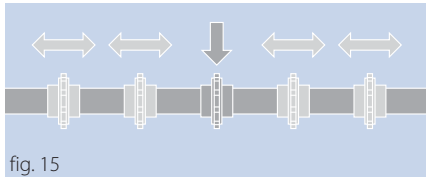
Place the hinge pin in hinge eyelets. Press the safety clips with the smooth side towards the outside on both sides of the belts into the clip lock (fig. 14). The clips must lock into the grooves on the hinge pin.

Removing:

Using a wide screwdriver lever out the clips towards the top side of the module out of the clip locks. Pull or press out the hinge pin.



Inserting sprockets



The affixed sprocket ensures perfect tracking within the conveyor. Since the belt's width changes with temperature, the remaining sprockets must be free to move sideways (fig. 15).

Please note: the sprockets must be attached in such a way that the teeth are aligned in axial direction (fig. 16).

In series 5 and 9: the teeth must engage in the belts as shown by the arrows (fig. 17).

Series 5 (does not apply to S5 ST): the single-row Z16/Z20 sprockets must not be fitted to the outside of the belt (in the area between the outside and centre module). As a result, the minimum band width increases to 175 mm.

We recommend always fixing the middle sprocket (please also see our brochure: Recommendations for constructing and calculating conveyors – ref. no. 206).

Properties/Resistances/Storage

Siegling Prolink is totally food safe.
Resistant to rot and decomposition.
Where belts come into contact with chemicals please refer to the resistances sheet, to prevent the belt from becoming damaged.

(www.forbo-siegling.com >>
Products/Plastic-modular belts/
Chemical resistance)

Siegling Prolink modules should be stored in a cardboard or a wooden box on a palette or on the shelf.

Conditions of storage:

- No direct exposure to sun
- Temperature: +10 bis +40 °C;
Humidity: 50 % (±5 %)
- Protect from chemical or mechanical influences.
- Don't store together with chemicals.



MOVEMENT SYSTEMS

Fitting and operating the modular belts

When operating and doing any work on the conveyor, ensure that the conveyor manufacturer's operating instructions and all the relevant statutory and safety regulations are complied with.

Caution:

Do not put hands into modular belts during operation. Risk of injury!

Fitting

- Check perfect state of all conveyor works components (sprockets, bearings, supports, runners etc)
- If necessary clean the conveyor, remove damaged or worn out parts and align runners.
- If possible don't remove the packaging until it arrives on-site
- Don't roll or pull belts or sections of belts over rough or dirty floors
- Insert belts or belt sections into the conveyor and splice or make them endless (please see the section on "Pre-fitting"). In doing so avoid impacts to the belts, sprockets etc. and make sure the sprockets engage properly. (See the section on "Fitting sprockets").
- When fitting belts with side guards or profiles make sure that the modules are facing in the correct direction.

Because our products are used in so many applications and because of the individual factors involved, our operating instructions, details and information on the suitability and use of the products are only general guidelines and do not absolve the ordering party from carrying out checks and tests themselves. When we provide technical support on the application, the ordering party bears the risk of the machinery functioning properly.

- When joining together or inserting or removing sections of belts, make sure that the belt is untensioned and affixed.
- Use the snub rollers or support drums or the appropriate belt sag to set the arc of contact or "pre-tensioning" of the modular belt (please also see the brochure Recommendations for constructing and calculating conveyors – ref. no. 206).
- Please follow the conveyor manufacturer's instructions on how to operate the belts or the conveyor.

Maintenance and servicing

It is possible that the length of the belt might have to be readjusted once the belt has been in operation for a certain period of time. This can happen when the following has been done:

- The take-up unit has been readjusted
- One or several modules have been removed

Inspections must be carried out at regular intervals and documented to make sure belts work properly and look perfect.

How often inspections take place, depends on the load that is placed on the belt. The following parts of each individual modular belt are checked for damage, abrasion, alignment and proper function:

- Sprockets
- Supports and runners
- Modules including profiles and side guards
- Hinge pins

Broken and/or torn parts must be exchanged immediately. To change the modules please refer to the appropriate sections ("prefitting"/"fitting").

Cleaning

We recommend cleaning the belt regularly so that it will always work perfectly. Soiling means more wear and tear on the modules, sprockets and other accessories. How often cleaning is carried out and the methods and cleaning agents depend on the level of soiling and the type of soiling. Particularly in the food industry attention must be paid to the applicable regulations on hygiene, current legislation and the specifications laid down by the manufacturer of the conveyor.

Detailed information and recommendations on "Cleaning and disinfection of modular belts the food manufacturing process" can be found in our TecInfo 09. A list of desinfectants recommended for the HACCP types you may find in our TecInfo 07 (both on request).



MOVEMENT SYSTEMS

Forbo Siegling GmbH
Lilienthalstrasse 6/8, D-30179 Hannover
Phone +49 511 6704 0, Fax +49 511 6704 305
www.forbo-siegling.com, siegling@forbo.com

Forbo Movement Systems is part of the Forbo Group,
a global leader in flooring, bonding and movement systems.
www.forbo.com