

# Installation and Operating Instructions Interroll Ultra Hygienic Transfer

**HT 1000** 

 $1500 \times 1300 \times 1200 \text{ mm (S)}$ 

 $1700 \times 1300 \times 1400 \text{ mm (M)}$ 

1900 x 1300 x 1600 mm (L)

#### Manufacturer's address

Interroll Trommelmotoren GmbH
Center of Excellence Hygienic Solutions
Opelstraße 3
41836 Hueckelhoven/Baal (Germany)
www.interroll.com

#### Interroll Service

Our Service Team will gladly provide advice in case of questions or problems:

Hotline: +49 (0) 2193 - 23 222 E-mail: ceu.service@interroll.com

#### Contents

We strive for the information presented to be correct, up to date and complete. We have carefully developed the contents of this document. Nevertheless, errors and changes are expressly subject to change.

#### Copyright / intellectual property right

Texts, images, graphics and the like as well as their arrangement are protected by copyright and other protection laws. Reproduction, modification, transfer or publication of any part or the entire content of the document in any form is prohibited. This document is intended exclusively for information purposes and for intended use and does not authorize replicating the respective products. All signs contained in this document (registered trademarks, such as logos and business designations) are the property of Interroll Trommelmotoren GmbH or third parties and may not be used, copied or distributed without prior written consent.



## Table of contents

ntroduction	•••••
Notes about working with the installation and operating instructions	
Contents of these installation and operating instructions	
Integrated part of the product	
Installation and operating instructions are part of the module	
Warning notices in this document	•••••
Symbols	
ıfety	
State of the art	
Intended use	
Field of use	
Changes to the module	
Unintended use	
Personnel qualification	
Operators	
Service personnel	
Electricians	
Personal protective equipment	
Dangers	
Safety devices	
Heat	
Electricity	
Rotating parts	
Parts lying around or falling off	
Risk of injury due to faults during operation	
Insufficient hygiene	
Maintenance intervals	
Interfaces to other devices	
Operating modes	
Normal mode	
Special mode	
oduct identification	
Components	•••••
Property	•••••
Technical data	
Nameplate	
RFID chip	
Scope of supply	•••••
ansport and storage	
Transport	
After the delivery	•••••
Storage	



#### **Table of contents**

nstallation	18
To be observed during installation	18
Torque	18
Anchoring	18
Protective cover	18
Installing the module	19
Installation at cut up	19
Installation on the stand	20
Installing containers	21
Electrical installation	22
Notes for the integrator	22
nitial startup and operation	23
Initial startup	23
Operation	23
Before every operation start	23
During operation	23
Procedure in case of accident or fault	23
Cleaning	24
Preparation for cleaning by hand	26
Cleaning with high-pressure cleaner	26
Maintenance and repair	28
Observe the following for maintenance and repair	28
Preparing for maintenance	29
Maintenance	29
Checking the UHT	29
Replacing the drive	30
Replacing the (complete) drive	31
Replacing the drum motor	32
Replacing the drive wheel	33
, e	34
Replacing a segment	35
, , ,	
Replacing the guide ring	36
Replace round belt	
Replacement of carrier unit	39
Replacing containers	41
Froubleshooting	42
In case of a fault	42
Troubleshooting	42
Spare and wear parts	44
Ordering information	44
Spare parts drawing	45
Spare parts list	46
Decommissioning and disposal	47
Environmental protection regulations	47



#### Table of contents

Declaration of incorporation	48
Declaration of incorporation	50
Appendix	52
Warranty for Interroll Ultra Hygienic Transfer	
Restrictions	52
Exceptions	52
Interroll Service	52



#### Introduction

#### Notes about working with the installation and operating instructions

The Interroll Ultra Hygienic Conveyor product is generally referred to as "module" in this document.

## Contents of these installation and operating instructions

These installation and operating instructions contain important notes and information about the various operating phases of the module:

- Transport, assembly and startup
- · Safe operation, required maintenance tasks, removal of any faults
- Spare parts, supplementary accessories

## Integrated part of the product

The installation and operating instructions describe the module at the time of its initial delivery after manufacturing.

In addition to these installation and operating instructions, special contractual agreements and technical documents apply to special versions of the module and its additional equipment.

## Installation and operating instructions are part of the module

- ▶ To ensure trouble-free and safe operation, as well as the settlement of possible warranty claims, always read these installation and operating instructions first and observe all information contained herein.
- ▶ Keep the installation and operating instructions close to the module.
- Pass the installation and operating instructions on to any subsequent operator or occupant. Interroll does not accept any liability for faults or defects due to non-observance of these installation and operating instructions.
- ▶ If you have any questions after reading the installation and operating instructions, please contact Interroll customer service. Contact persons near you can be found on the Internet under: www.interroll.com/contact.



#### Introduction

#### Warning notices in this document

The warning notices refer to risks which may arise while using the module. They are available in four danger levels identified by the signal word:

Signal word	Meaning
DANGER	Identifies a danger with high risk that will result in death or serious injury if it is not avoided.
WARNING	Identifies a danger with medium risk that could result in death or serious injury if it is not avoided.
CAUTION Identifies a danger with low risk that may result in minor or med it is not avoided.	
NOTICE	Identifies a danger that results in property damages.

#### **Symbols**



- ☑ This symbol represents a prerequisite to be met prior to installation and maintenance work.
- ▶ This symbol marks the steps to be carried out.



### **Safety**

#### State of the art

The module has been built to comply with the state of the art. Nevertheless, users may encounter hazards during its use.



Disregarding the notices in these installation and operating instructions may lead to life-threatening injuries!

- ▶ Carefully read the installation and operating instructions and follow their content.
- Observe local accident prevention regulations and general safety regulations that apply in the area of use.

#### Intended use

The module is intended only for industrial purposes and use in industrial environments and is suited solely to transporting chicken parts within a slaughter process.

The module is an incomplete machine and must be integrated into a complete system prior to operation.

Field of use

The module is dimensioned only for a certain field of use and may not be operated outside of these specific limits. For additional information, see the chapter "Technical Data".

Any other use is considered inappropriate. Deviating operating conditions require additional clarifications, a special release of the module and new contractual agreements.

Changes to the module

Any modifications that affect the safety are not permitted.



#### **Safety**

#### Unintended use

Any use beyond the intended use is considered inappropriate or, if required, must be authorized by Interroll Trommelmotoren GmbH. Setup and operation in explosive atmospheres is prohibited. The use in a medical-pharmaceutical area requires the approval from Interroll.

The transport of persons is prohibited.

The transport of hazardous or damaging goods is prohibited.

The transport of hot or hygroscopic goods is prohibited.

Installation in unprotected rooms exposed to the weather or in areas where the technology deteriorates and can fail due to the prevailing climatic conditions is considered inappropriate use.

Use of the module is not intended for private end customers! Use in a residential area is prohibited without additional assessment and without the use of EMC protective measures that have been adapted accordingly!

#### Personnel qualification

Unqualified personnel cannot recognize risks and, as a result, is subject to greater dangers.

- ▶ Authorize only qualified personnel to perform the activities described in these instructions.
- ▶ The operating company must ensure that personnel follow locally applicable regulations and rules about safety and hazards while working.

The following target groups are addressed in these instructions:

Operators

Operators have been instructed in the operation and cleaning of the module and follow the safety guidelines.

Service personnel

The service personnel features a technical training and performs the maintenance and repair tasks.

**Electricians** 

Persons working on electrical installations must have pertinent technical training.



#### Safety

#### Personal protective equipment



▶ For all work, such as assembly, maintenance and cleaning tasks, wear personal protective equipment that is suitable and appropriate for the hazard situation.





#### Safety

#### **Dangers**



The following list informs you about the various types of danger or damage that may occur while working with the module.

#### Safety devices

- Install fixed and movable electrically secured protective devices.
- ▶ Perform any maintenance and repair work on the module only when it is powered down and ensure that it cannot be started accidentally.
- ▶ Take additional protective measures in an area frequented by persons or when persons can reach between moving baskets and their fastening and guide elements in the complete system area.
- Also take additional protective measures for the area of the drive wheel as well as between moving and fixed system components in the entire system area.
- Do not remove protective covers or housings.
- ▶ Regularly check safety devices.

#### Heat

Do not touch the drum motor during operation. Risk of burns.

#### **Electricity**

- Reach into the module only if the module is powered down.
- ▶ Before performing the work, de-energize the electrical system, measure that no voltage is present and secure it against reactivation.

#### **Rotating parts**

- ▶ Keep your fingers and hair away from moving parts.
- If you have long hair, always wear a hair net.
- ▶ Never wear loose clothing.
- ▶ Never wear jewelry, such as necklaces or bracelets.

## Parts lying around or falling off

- ▶ Remove equipment and material that is not required from the workspace.
- Wear safety shoes.
- ▶ Specify and monitor placement of the conveying goods.

## Risk of injury due to faults during operation

- ▶ Regularly check the module for visible damage.
- Stop the module at once and ensure that it cannot be started accidentally in case of: Smoke from a fire, unusual noise, blocked or defective conveying good, defective supports, side guides or accessory devices, unauthorized removal of safety covers.
- ▶ Promptly have qualified personnel determine the cause of the fault.
- Immediately remove any escaping gear oil.
- Do not step onto the module during operation.

#### Insufficient hygiene

- ▶ Clean the module regularly.
- ▶ Follow all notices relevant to hygiene in these instructions.

#### Maintenance intervals

- ▶ Regularly perform maintenance and inspection work.
- ▶ Use only OEM spare parts.



#### Safety

#### Interfaces to other devices

New hazard zones may arise if the module is integrated into a complete system. These zones are not part of these instructions and must be analyzed during installation and startup of the complete system.

- ▶ When combining the module with other modules or machinery, check for new hazards before initial startup.
- ▶ If necessary, take further construction measures.

#### **Operating modes**

#### Normal mode

The module is installed at the customer in a complete system and operated as part of the system.

#### Special mode

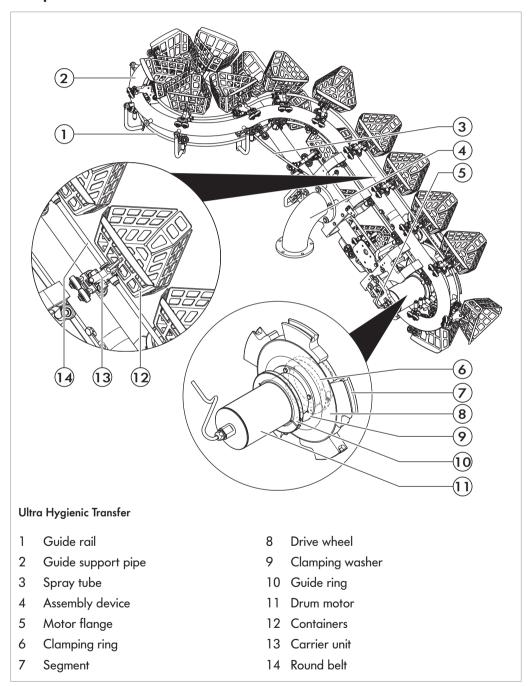
Special operation refers to all operating modes that are required to guarantee and maintain regular operation.

Special operating mode	Explanation	Comment
Transport/storage	Loading and unloading, transport and storage	-
Assembly/initial startup	Installation at the end customer and performing the test run	-
Cleaning	External cleaning without removing protective devices	When powered down
Maintenance/repairs	Maintenance and inspection tasks	When powered down
Troubleshooting	Troubleshooting in the event of a fault	-
Fault elimination	Eliminating the fault	When powered down
Decommissioning	Removal from the complete system	When powered down
Disposal	Removal from the complete system and disassembly	When powered down



#### **Product identification**

#### **Components**





#### **Product identification**

#### **Property**

The Ultra Hygienic Transfer (UHT) is suited for transporting chicken parts within a slaughtering process.

The module is available in the sizes S, M and L with 17 (S), 19 (M) or 21 (L) containers each. The transport containers of the module are driven by a round belt that runs along a guide support pipe. It is driven by a drum motor.

The module can be divided into two main components.

- 1. **The conveyor unit** essentially consists of drive motor, piping, tension member, baskets, stand or mounting clamp and CIP (Clean In Place) system.
- 2. **The control cabinet** with electronic components for controlling the drive and CIP (Clean In Place) station.

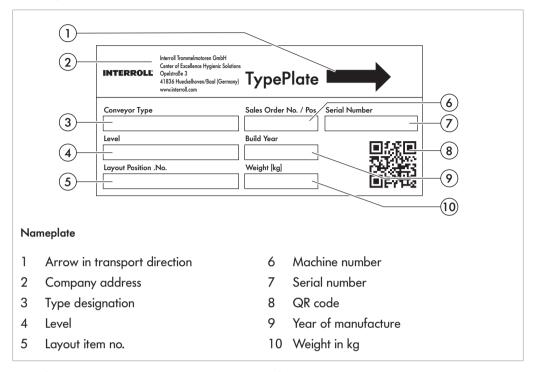
#### Technical data

	UHT
Dimensions L x W x H (without stand)	1500 x 1300 x 1200 mm (S)
	1700 x 1300 x 1400 mm (M)
	1900 x 1300 x 1600 mm (L)
Stand dimensions D x H	1300 x 1000 - 1400 mm
Basket dimensions 50 x 143 x 215 (triangular with 60° ang	
Number of baskets	17 (S)
	19 (M)
	21 (L)
Conveying speed	0.28 m/s @ 200 Hz
Ambient temperature	−5 to 40 °C
Motor type Synchronous drum motor DM 0113	
Rated voltage	400 V 50 Hz
	460 V 60 Hz
Electrical power	440 W (without oil)
Protection rating	Drum motor: IP 69 K



#### **Product identification**

#### Nameplate



The information on the nameplate is used to identify the conveyor. The type designation is required to use the conveyor according to its intended use.

The nameplate is located on the main support element between the motor flanges.

#### RFID chip

The information in the RFID chip at the head of the drum motor is used for identifying the drive. Scanning the chip enables identifying the specification of the drive and its features.



#### **Product identification**

#### Scope of supply

The module is delivered completely assembled.

The scope of delivery includes:

- Main support element including assembly device
- Tube run with rotary guiding
- Drive unit (drum motor, motor flanges, drive wheel, clamping washer, guide ring and clamping ring)
- Spray tube
- Carrier units
- Containers
- Round belt, equipped with 17-21 clamping units (clamping sleeve, guiding sleeve, joint bearing, snap ring)
- Two Emergency Stop pushbuttons

#### Optional:

- Spare belt
- · Control cabinet for electronic control
- · Control cabinet for CIP control
- · Stand with lifting device
- Clamping unit for cross ties



#### Transport and storage

#### **Transport**

#### **⚠ WARNING**

#### Risk of injury during transport

- ▶ Fasten the module securely and slip-proof for transport.
- ▶ Ensure that the lifting device (e.g. fork lift) is rated for the weight of the module.
- Ensure that there are no persons under the suspended load while lifting and moving the module.
- ▶ Have any persons leave the danger zone.
- ▶ Wear safety shoes.
- ▶ Check correct fastening for transport.

The module is transported in a wooden crate. Loosen the transport locks around the package. The load lifting points are marked on the module. The module is lifted out of the wooden crate using a suitable lifting device.

#### After the delivery

- Inspect module for transport damages.
- Immediately notify the carrier and manufacturer in case of damages to avoid losing any claims for compensation.

#### Storage

#### **△ WARNING**

#### Risk of injury due to improper storage

- Do not stack modules. Do not place any other objects on the module.
- ▶ Check module for stability.
- ▶ If the module is not immediately placed in operation, store it at a location protected against humidity and dust.



#### Installation

#### **M** WARNING

#### Risk of injury due to improper installation

- ▶ Mechanical installation tasks are to be performed only by service personnel. Observe the safety information.
- ▶ Electrical installation tasks are to be performed only by authorized electricians. Observe the safety information.
- Carefully install all terminals and connections, such as cables, hoses and pipes, and check for tight fit.
- Wear safety shoes and cut-resistant safety gloves.

The module is delivered to the installation site as a pre-assembled unit and must be set up, connected and integrated into a system on site.

Integrating the module in an overall system requires the following installation tasks:

- Setting up the module
- Install module at cut up or on the stand
- · Connect module to control cabinet
- Installing containers

#### To be observed during installation

#### **Torque**

When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard thread lockers must be replaced as needed.

Property class A2-70		
Thread	Tightening torque [Nm]	
M6	5.9	
M8	14.5	
M10	30.0	
M12	50.0	

#### Anchoring

Anchor or fasten the module torsion-free, e.g. to the floor or to adjacent components.

#### Protective cover

Attach protective covers to the module before startup according to the country-specific regulations for accident prevention.



#### Installation

#### Installing the module

The following options are available for integrating the module in an overall system:

- The module is attached to the cross ties of the cut up
- The module is delivered with stand

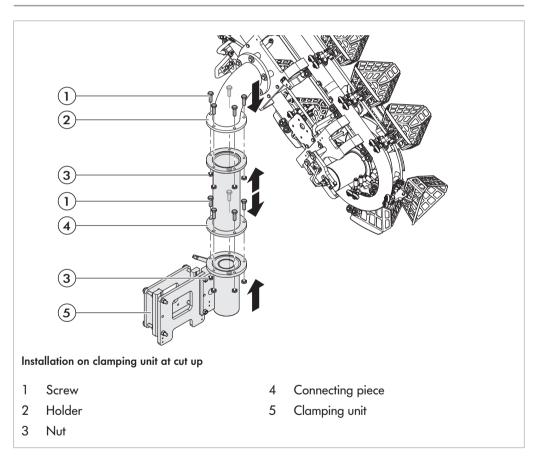
Installation at cut up

The module is fastened to the cut up using a clamping unit.

## **▲ CAUTION**

#### Risk of injury when lifting heavy loads

During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable lifting equipment.



- ☑ Unload the module.
- ▶ Install spacer (4) with screws (1) and nuts (3) on terminal unit (5) that is fastened to the cross ties of the cut up machine.
- Lift the module with a suitable lifting device and position it on the clamping unit.
- ▶ Fasten the holder (2) of the module with screws (1) and nuts (3) on the connecting piece (4).



#### Installation

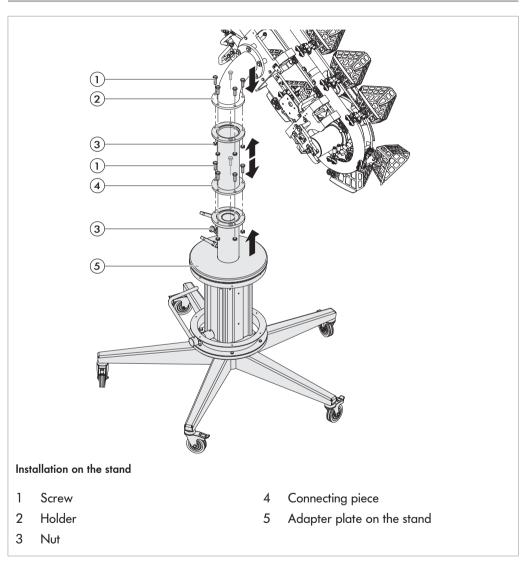
#### Installation on the stand

The module is installed on the supplied stand.

#### **⚠ CAUTION**

#### Risk of injury when lifting heavy loads

During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable lifting equipment.

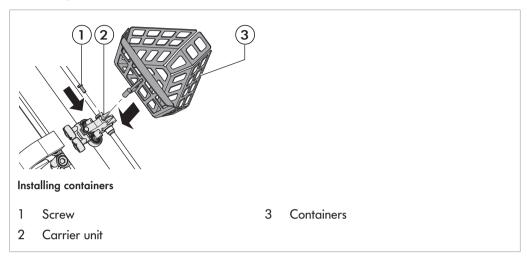


- $\ensuremath{\square}$  Unload the module.
- ▶ Install connecting piece (4) with screws (1) and nuts (3) on adapter plate (5) on the stand.
- Lift the module with a suitable lifting device and position it on the stand.
- ▶ Fasten the holder (2) of the module with screws (1) and nuts (3) on the connecting piece (4).



#### Installation

#### **Installing containers**



#### **⚠ WARNING**

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- ▶ Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- ▶ Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.

- ☑ The module is shut down.
- ☑ Emergency Stop pushbutton is pressed.
- ▶ Loosen screw (1) in carrier unit (2).
- ▶ Hang the container (3) into the carrier unit (2) and secure it with the screw (1).



#### Installation

#### **Electrical installation**



#### **⚠ DANGER**

#### Danger - energized cable ends!

- ▶ Electrical installation should only be performed by qualified electricians.
- Ensure that the device is powered down.
- Minimum bending radii of cables, hoses and lines must be maintained.



#### **⚠ DANGER**

#### Danger to life from electrocution and crushing

Installation and maintenance tasks on 400-V conveyor systems while they are in operation can cause life-threatening electrocution and serious crushing.

Power down the entire conveyor module and ensure that it cannot be started accidentally.

The module is provided with voltage either via CEE plug or direct installation in the control cabinet.

- ▶ Check cables and components for damage before installation.
- ▶ The connection values of the module are listed on the motor nameplate.
- Static electricity

  Take proper measures for grounding and potential equalization.
- i Use only original fuses with specified amperage.

#### Notes for the integrator

#### **Control cabinet**

#### Requirement:

- ☑ Observe the operating and cleaning instructions of the control cabinet.
- ▶ The container in the CIP control cabinet must be filled with water or cleaning/disinfecting agent, see "Cleaning", page 24.
- A hose must be connected between the CIP pipes and the control cabinet.

#### **Protective devices**

To prevent anyone from reaching inside the hazard zone (drive wheel, guide rollers of the baskets, baskets, electrical components), the module must be equipped with a fixed separating protective device. Selection and installation of suitable protective devices are the responsibility of the integrator.



#### Initial startup and operation

#### Initial startup

#### **⚠ WARNING**

#### Risk of injuries due to incorrect handling

- ▶ Check electrical connections and protective devices.
- Remove the materials from the module.
- ▶ Remove unauthorized persons from the danger zone.
- ▶ Wear safety shoes and work clothing.

The module has been checked at the factory.

#### **Operation**

## Before every operation start

- ▶ Check the module for visible damage.
- ▶ Ensure that all safety devices operate flawlessly.
- Ensure that only authorized persons are in the operating area of the module.
- ▶ Ensure that the module is running freely and that no parts are jammed.
- Remove equipment or material that is not required from the operating area.
- ▶ Specify and monitor correct placement of the conveying good.

#### **During operation**

#### **△ WARNING**

#### Danger from rotating parts

Crushing and serious injuries due to parts of the body and clothing being pulled into the module!

- Do not remove the protective covers.
- Wear personal protective equipment.
- Avoid jewelry and bracelets.
- ▶ If the conveying goods are outside of the container, switch off the module and ensure that it cannot be started accidentally, then remove the conveying goods.

## Procedure in case of accident or fault

- Press the Emergency Stop pushbutton, power it down and ensure that it cannot be switched on accidentally.
- In case of an accident: Provide first aid and make an emergency call, if necessary.
- Inform qualified personnel.
- ▶ Have the fault corrected by qualified personnel.
- ▶ Restart the module only after this has been approved by qualified personnel.



#### Cleaning

#### **↑** WARNING

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- ▶ Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- ▶ Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.

#### **⚠** CAUTION

#### Risk of injury due to improper handling or accidental motor starts

- Maintenance and cleaning work must only be performed by service personnel.
- Perform maintenance work only after switching off power. Ensure that the Ultra Hygienic Transfer (UHT) cannot be switched on accidentally.
- ▶ Set up signs indicating that maintenance work is in progress.



#### **⚠** CAUTION

#### Risk of injury from slipping on the floor!

Slipping on a wet floor can lead to a fall. The fall can cause injuries.

Immediately pick up leaking and spilled fluids using suitable means.



Cleaning

#### **⚠** CAUTION

#### Risk of infections due to non-observance of hygiene regulations for the food industry!

If the cleaning intervals are not followed, the Ultra Hygienic Transfer could harbor dangerous bacteria. They could lead to health risks for the end consumer.

- ▶ Observe all legal regulations and hygiene regulations for food safety.
- Use solely food-safe lubricants as well as cleaning and disinfecting agents.
- Observe the cleaning intervals.

The Ultra Hygienic Transfer (UHT) can be divided into two main components.

- 1. **The conveyor unit** essentially consists of drive motor, piping, tension member, baskets, stand or mounting clamp and CIP (Clean In Place) system.
- 2. **The control cabinet** with electronic components for controlling the drive and CIP (Clean In Place) station.

The majority of the contamination originates from the cut up (not part of the Ultra Hygienic Transfer). Since the conveyor unit of the Ultra Hygienic Transfer (UHT) is located below the cut up, it may be seriously affected by contamination and require intensive cleaning at the end of the production day or after every standstill of over 30 minutes.



#### Cleaning

#### Preparation for cleaning by hand

- ▶ Switch off the power supply to the Ultra Hygienic Transfer (UHT).
- ▶ Switch off the main switch to de-energize the UHT.
- ▶ Attach a sign to the control cabinet that maintenance work is in progress.
- ▶ Ensure that the main switch cannot be switched on accidentally. (LOTO: "lock out, tag out")
- In general, the supplied operating instructions of the installed components must be observed.

#### Cleaning with high-pressure cleaner

- Material deposited on the piping, the conveyor unit of the Ultra Hygienic Transfer (UHT), can cause the baskets to run unevenly and damage it. Material deposited between the rollers of the baskets and the piping can also lead to increased power consumption of the drive motor and, in the worst case scenario, to a switch-off due to blocking. Regular (daily) cleaning guarantees a high operating reliability and correct functioning of the Ultra Hygienic Transfer (UHT).
  - ▶ Remove foreign material from the piping.
  - Do not use a sharp-edged tool for cleaning, particularly not for the blue tension member.

The **conveyor unit** of the Ultra Hygienic Transfer (UHT) is generally suited for cleaning with a high-pressure cleaner since the installed components inside the contamination circle have a protection rate of at least IP66/IP69k.

For additional important information, observe the operating instructions of the components installed in the conveyor unit.

If possible, the control cabinet should be positioned outside of the contamination circle. The control cabinet has the protection rate IP66.

For additional important information, observe the operating instructions of the control cabinet and the electronic components installed in the conveyor unit.

#### NOTICE

#### Seal not tight due to excessive pressure

- ▶ Do not direct the nozzle directly on the seals during cleaning.
- Observe attached operating instructions of the installed components.
- Observe water pressures and protection rates of the installed components.
- Move the nozzle continuously and evenly over the entire UHT.



#### Cleaning

#### **NOTICE**

#### Risk of damage to the Ultra Hygienic Transfer (UHT) from improper cleaning.

- ▶ Never use an acidic cleaner together with a chlorinated cleaner since the resulting dangerous chlorine gases can damage stainless steel and elastomers.
- Avoid temperatures over 35 °C so that no proteins can be deposited on the surface. Remove greases at lower temperatures and with suitable cleaners.
- Maintain a distance of 30 cm between the nozzle and the surface to be cleaned.
- Do not direct the nozzle directly on the seals during cleaning.

#### Cleaning of conveyor unit

The following must be observed when using a high-pressure cleaner for the **conveyor unit** of the Ultra Hygienic Transfer (UHT):

- ▶ Ensure that the distance between high-pressure nozzle and the conveyor unit of the Ultra Hygienic Transfer (UHT) is at least 30 cm.
- ▶ The maximum water cleaning pressure is 80 bar.
- ▶ The maximum water temperature is 35 °C.
- If possible, only perform the high-pressure cleaning of the conveyor unit of the Ultra Hygienic Transfer (UHT) if needed, that is, in case of heavy and dried-on contamination.
- ▶ Since high-pressure cleaning can result in aerosols, which may distribute germs into the environment, it is recommended to clean with low water pressure whenever possible.

## Cleaning of the control cabinet

The following must be observed when using a high-pressure cleaner on the **control cabinet** of the Ultra Hygienic Transfer (UHT):

#### Requirement:

☑ Observe the operating and cleaning instructions of the control cabinet.

- ▶ Wipe off larger, loose contamination.
- ▶ Pre-clean with water (20 bar, 35 °C).
- Direct the nozzle down onto the surfaces at an angle of 45°.
- For a more thorough cleaning, clean seals, grooves and other recesses with a soft brush.
- ▶ In case of heavy contamination, use a soft brush and/or a plastic scraper together with spraying water.
- ▶ Clean for approx. 15 minutes using a cold alkaline or acidic agent.
- ▶ Spray off cleaner with water (20 bar, 35 °C).
- Disinfect with cold agents for approx. 10 minutes.
- ▶ Spray off with water (20 bar, 35 °C).
- ▶ After cleaning, check surfaces, grooves and other recesses for residues.
- ▶ Wipe the floor dry.

For scale deposits, we recommend the use of an acidic cleaner 1 to 4 times per month. If a cleaning with chlorine is permissible, we recommend alkaline cleaners and disinfectants. In this case, the last disinfecting step can be omitted depending on the degree of contamination. Observe the corresponding certificates at www.interroll.com.





#### Maintenance and repair

#### Observe the following for maintenance and repair



#### **↑** DANGER

#### Danger to life from electrical voltage!

Switch off the power supply system, ensure that it cannot be switched on accidentally and check that there is no voltage.

#### **△ WARNING**

#### Risk of crushing and injuries

Installation and maintenance tasks on a conveyor system while it is in operation can cause crushing and electric shock.

- ▶ Disconnect the module from the power supply before assembly and maintenance tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- ▶ Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.
- ▶ Observe the weight of the module (see nameplate), if necessary, work in pairs.
- ▶ Use suitable loading and lifting equipment. Secure the module against falling or tipping.

#### **A** CAUTION

#### Risk of injury due to improper handling or accidental motor starts

- Maintenance and cleaning work must only be performed by service personnel.
- Perform maintenance work only after switching off power. Ensure that the Ultra Hygienic Transfer (UHT) cannot be switched on accidentally.
- Set up signs indicating that maintenance work is in progress.
- When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard thread lockers must be replaced as needed.
- Torx screws and nuts used in elongated holes must have a washer so that they can be loosened again if necessary (e.g., for disassembly).



Maintenance and repair

#### **Preparing for maintenance**

- ▶ Switch off the power supply to the Ultra Hygienic Transfer (UHT).
- ▶ Switch off the main switch to de-energize the UHT.
- Attach a sign to the control cabinet that maintenance work is in progress.
- ▶ Ensure that the main switch cannot be switched on accidentally. (LOTO: "lock out, tag out")
- ▶ In general, the supplied operating instructions of the installed components must be observed.

#### Maintenance

In general, the Ultra Hygienic Transfer (UHT) does not have to be maintained and does not require any special care during its regular service life, except for the blue tension member of the conveyor unit, which should be replaced once a year. It is the nature of the Ultra Hygienic Transfer (UHT) that more contaminations can accumulate in its immediate vicinity than in the subsequent areas of the poultry slaughtering line.

To avoid he function being affected by excessive contamination, certain checks should be performed at regular intervals:

#### Checking the UHT

- ▶ Before every production start: Check the function of the Emergency Stop pushbutton.
- ▶ Ensure every day that the Ultra Hygienic Transfer (UHT) can move without restriction.
- Inspect the Ultra Hygienic Transfer (UHT) daily for visible damage.
- ▶ Ensure every day that the blue tension member is not sagging or damaged.
- ▶ After every installation of the baskets, ensure that the holding mechanism is correctly engaged.
- ▶ Ensure every week that the drum motor is firmly seated in the holder.
- Ensure weekly that cables, lines and connections are in good condition and securely fastened.



#### Maintenance and repair

#### Replacing the drive

There are two options when replacing the drive:

- · Replacing the complete drive unit
- · Replacing individual components

#### **⚠ WARNING**

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- Electrical maintenance and repair work must only be performed by authorized electricians.

  Observe the safety information.

#### **⚠ CAUTION**

#### Risk of injury when lifting heavy loads

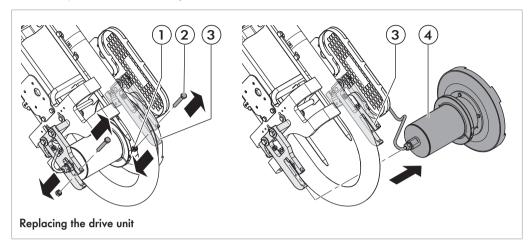
▶ During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable lifting equipment.



#### Maintenance and repair

## Replacing the (complete)

If necessary, the drive can be replaced as a whole.



- 1 Nut (at motor flange)
- 2 Screw (at motor flange)
- 3 Motor flange
- 4 Drive (complete)

 $(\mathbf{i})$ 

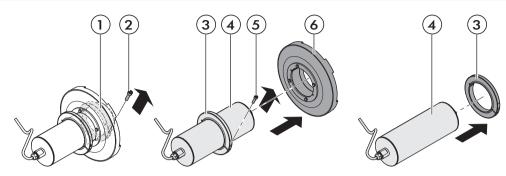
Fasten screws with a tightening torque of 14.5 Nm.

- ☑ The module is shut down.
- Disconnect the drum motor from the power supply.
- ▶ Disassemble the segments, see "Replacing a segment", page 34.
- ▶ Slacken the belt.
- Remove drive unit from the motor flanges: Loosen screws (2) and nuts (1) of the motor flanges (3) and remove drive wheel with drum motor from the motor flange on both sides. To do so, move the drive (4) completely down out of the motor flanges and remove it from the guide support pipe to the side.
- Insert the new drive unit (4) in reverse order into the motor flanges (3) and fasten it with screws (2) and nuts (1).
- Adjust screw size at middle screw of the motor flange to approx. 15 mm on both sides.
- Install the segments and tension the belts again.
- ▶ Connect drum motor to the power supply.



#### Maintenance and repair

#### Replacing the drum motor



#### Replacing the drum motor

- 1 Clamping ring
- 2 Cylinder head screw (clamping ring)
- 3 Guide ring

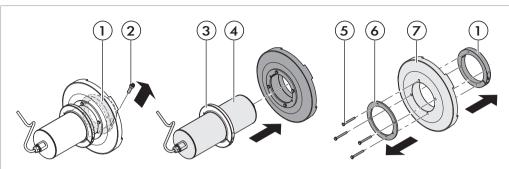
- 4 Drum motor
- 5 Cylinder head screw (guide)
- 6 Drive wheel

- Disconnect the drum motor from the power supply.
- ▶ Remove drive from motor flanges, see "Replacing the (complete) drive", page 31.
- ▶ Loosen cylinder head screw (2) in clamping ring (1) and pull drive wheel (6) (with clamping ring and clamping washer) off the drum motor (4).
- ▶ Loosen cylinder head screw (5) in the guide ring (3) and pull it off the drum motor (4).
- ▶ Install new drum motor in reverse order in the guide ring, drive wheel with clamping washer and clamping ring.
  - Observe: a) The drive wheel must be 50 mm from the end of the drum motor. 40.2 mm between clamping washer and guide ring. Use a tool (vernier caliper) for the alignment.
- Install drive in motor flanges.
- ▶ Connect new drum motor to the power supply.



#### Maintenance and repair

#### Replacing the drive wheel



#### Replacing the drive wheel

- 1 Clamping ring
- 2 Cylinder head screw (clamping ring)
- 3 Guide ring
- 4 Drum motor

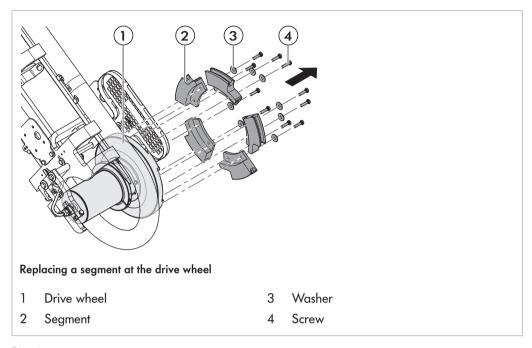
- 5 Hexagon head screw (clamping washer)
- 6 Clamping washer
- 7 Drive wheel

- ☑ The module is shut down.
- Disconnect the drum motor from the power supply.
- ▶ Remove drive from motor flanges, see "Replacing the (complete) drive", page 31.
- ▶ Loosen cylinder head screw (2) in clamping ring (1) and pull drive wheel (7) (with clamping ring and clamping washer) off the drum motor (4).
- ▶ Remove clamping ring (1) from drive wheel (7).
- ▶ Loosen four hexagon head screws (5) in the clamping washer (6) and remove it from the drive wheel (7).
- Assemble new drive wheel with clamping washer and clamping ring in reverse order with the drum motor.
  - Observe: a) The drive wheel must be 50 mm from the end of the drum motor. 40.2 mm between clamping washer (6) and guide ring (3). Use a tool (vernier caliper) for the alignment.
- Install drive in motor flanges.
- ▶ Connect drum motor to the power supply.



#### Maintenance and repair

#### Replacing a segment

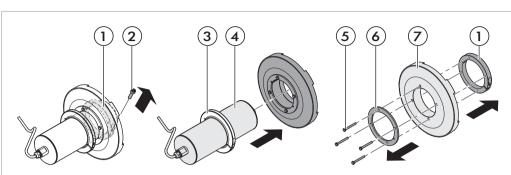


- $\ \ \, \square$  The module is shut down.
- Disconnect the drum motor from the power supply.
- ▶ Loosen two screws (4) and washers (3) per segment (2) and remove segments from drive wheel (1).
- ▶ Slacken the belt.
- ▶ Position new segments (2) on drive wheel (1) and fasten with two screws (4) and washers (3) each.
- ▶ Tension the belt again.
- ▶ Connect drum motor to the power supply.



#### Maintenance and repair

## Replacing the clamping washer



#### Replacing the clamping washer

- Clamping ring
- 2 Cylinder head screw (clamping ring)
- 3 Guide ring
- 4 Drum motor

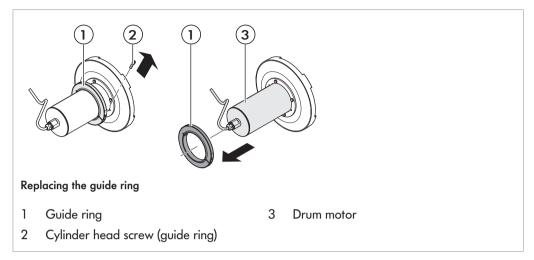
- 5 Hexagon head screw (clamping washer)
- 6 Clamping washer
- 7 Drive wheel

- $\square$  The module is shut down.
- Disconnect the drum motor from the power supply.
- ▶ Remove drive from motor flanges, see "Replacing the (complete) drive", page 31.
- ▶ Loosen cylinder head screw (2) in clamping ring (1) and pull drive wheel (7) (with clamping ring and clamping washer) off the drum motor (4).
- ▶ Remove clamping ring (1) from drive wheel (7).
- ▶ Loosen four hexagon head screws (5) in the clamping washer (6) and remove it from the drive wheel (7).
- ▶ Assemble drive wheel with new clamping washer and clamping ring in reverse order with the drum motor.
  - Observe: a) The drive wheel must be 50 mm from the end of the drum motor. 40.2 mm between clamping washer (6) and guide ring (3). Use a tool (vernier caliper) for the alignment.
- Install drive in motor flanges.
- ▶ Connect drum motor to the power supply.



#### Maintenance and repair

#### Replacing the guide ring

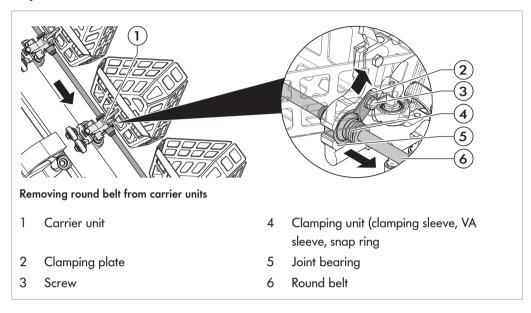


- ▶ Disconnect the drum motor from the power supply.
- ▶ Remove drive from motor flanges, see "Replacing the (complete) drive", page 31.
- ▶ Loosen cylinder head screw (2) in the guide ring (1) and pull it off the drum motor (3).
- ▶ Push new guide ring onto the drum motor and screw it in place with cylinder head screw. Observe: a) The drive wheel must be 50 mm from the end of the drum motor. 40.2 mm between clamping washer and guide ring. Use a tool (vernier caliper) for the alignment.
- Install drive in motor flanges.
- ▶ Connect drum motor to the power supply.



#### Maintenance and repair

#### Replace round belt



## **▲ WARNING**

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- ▶ Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- ▶ Wear safety shoes and cut-resistant safety gloves.
- ▶ Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.

#### Requirement:

- ☑ The module is shut down.
- ▶ Remove endless round belt from all carrier units: Loosen screw (3) and push clamping plate (2) to the top. Pull round belt (6) with joint bearing (5) and clamping unit (4) out of the retaining plate of the carrier unit (1).
- ▶ Properly dispose of the old round belt.



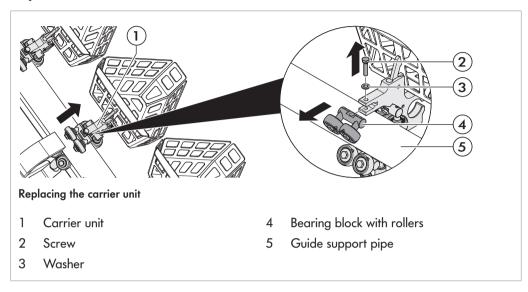
#### Maintenance and repair

- ▶ Install new endless round belt with all pre-installed clamping units in the carrier units: Insert round belt (6) with joint bearing (5) and clamping unit (4) into the retaining plate of the carrier unit (1). Pu sh the clamping plate (2) downward along the elongated hole up to the limit stop and secure it with the screw (3).
- Allow the motor to run slowly and check the belt run.



#### Maintenance and repair

#### Replacement of carrier unit



## **△ WARNING**

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- ▶ Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- ▶ Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.

#### Requirement:

- ☑ The module is shut down.
- ▶ Remove the round belt from the carrier unit, see "Replace round belt", page 37.
- ▶ Loosen screw (2) and washer (3) on the carrier unit to be replaced (1) in the upper bearing block (4) and push bearing block with rollers out of the retaining plate of the carrier unit and remove it from the guide support pipe (5).
- Lower the carrier unit, thread guide rollers out of guide rails and swivel them out of the carrier unit.
- Install new carrier unit on the guide support pipe and thread guide rollers onto guide rails.



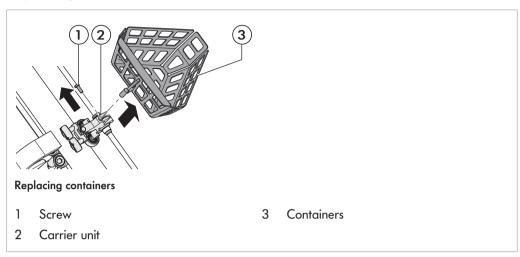
#### Maintenance and repair

- ▶ Push the new bearing block right up to the limit stop into the retaining plate and fasten it with screw and washer.
- Install round belt in carrier unit.



#### Maintenance and repair

#### Replacing containers



## **⚠ WARNING**

#### Risk from moving parts and acceleration/deceleration

Crushing and severe injuries in the area of the moving and fixed system components.

- Use of fixed or moving electrically secured protective devices. In particular, reaching into the hazard areas (drive wheel, guide rollers of the containers, containers, electrical components) must be prevented effectively.
- ▶ Disconnect the module from the power supply before maintenance and cleaning tasks and ensure that it cannot be started accidentally.
- Wear safety shoes and cut-resistant safety gloves.
- Ensure that personnel involved in maintenance and repair work have a secure footing and sufficient room to move.
- Mechanical maintenance and repair work must only be performed by service personnel. Observe the safety information.
- ▶ Electrical maintenance and repair work must only be performed by authorized electricians. Observe the safety information.

#### Requirement:

- ☑ The module is shut down.
- ☑ Emergency Stop pushbutton is pressed.
- ▶ Loosen screws (1) in carrier unit (2) and remove container (3) from carrier unit.
- ▶ Hang the new container (3) into the carrier unit (2) and secure it with the screw (1).





## **Troubleshooting**

#### In case of a fault



#### **▲ DANGER**

#### Danger to life from electrocution

- ▶ Only perform maintenance and repair work after you have switched off power.
- Faults on electrical equipment may be rectified only by a trained electrician!
- ▶ Immediately power down the module and ensure that it cannot be started accidentally.
- Remove conveying goods and objects that block the conveyor.
- ▶ Before switching the equipment on again, ensure that no persons are at risk.
- ▶ Properly dispose of any gear oil that has leaked. Have the motor replaced by service personnel if necessary.

## **Troubleshooting**

Fault	Cause	Remedy	
Transport process cannot be started and motor does not run	Main switch and/or control turned off	Check the switch position; turn on main switch and/or key switch of the control as required	
	Supply line damaged	Check supply line	
Transport shows jerky movements	Foreign objects in belt or in roller area	Immediately actuate Emergency Stop pushbutton. Remove foreign objects. Check transfer for damage and repair as required.	
	Carrier unit is rubbing	Fasten or replace carrier unit, see "Replacement of carrier unit", page 39	
	Belt stretching due to excessive stress	Increase travel distance of drum motor or replace belt, see "Replace round belt", page 37	



## **Troubleshooting**

Fault	Cause	Remedy	
Conveying goods are not being transported	Defective drum motor	Replace defective motor, see "Replacing the drum motor", page 32	
	Defective roller	Replace defective carrier unit, see "Replacement of carrier unit", page 39	
	Defective drive wheel	Replace defective drive wheel, see "Replacing the drive wheel", page 33	
	Obstacle / conveying goods outside of containers	Remove obstacle / place conveying goods in containers	
	Belt too loose or defective	Replace the belt, see "Replace round belt", page 37	
Motor circuit breaker is triggered due to excessive current consumption	Gear box or bearing defective	Replace the defective part	
	Short circuit	Check electrical connections and replace defective parts	
	Unit weight too high	Observe maximum weight	
Power consumption too high	Pipe track dirty	Visual inspection and cleaning of module, see "Cleaning", page 24	
Friction too high	Blocking of a carrier unit by bones/gristle	Visual inspection and cleaning of module, see "Cleaning", page 24	
Noise development/	Bearing defective	Replace bearing	
squeaking/whistling	Belt is touching	Align the belt	
	Dirty roller	Clean roller	



# Spare and wear parts

All spare and wear parts are available from Interroll. Maintenance and repair work may be performed only by qualified personnel. Interroll offers training sessions about required maintenance and repair tasks upon request.

#### **Ordering information**

Ordering spare and wear parts requires the exact identification of the module, see type plate.

The following information is required for an order:

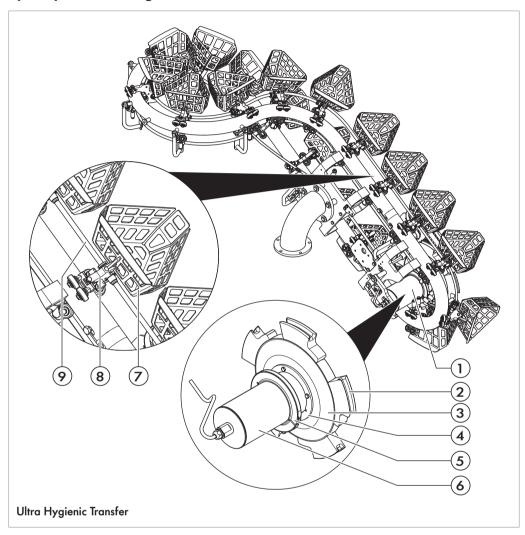
- Machine number
- Type
- Item number in spare parts list
- Designation
- Material number

For additional information about the spare parts portfolio, please contact your supplier.



Spare and wear parts

## Spare parts drawing





## Spare and wear parts

## Spare parts list

S = spare part, W = wear part, T = tool

Type: UHT					
Item No.:	Designation	Material number	S/W/T		
1	Complete drive (drive unit)		S		
2	Segment	63174112	S		
3	Drive wheel	63174097	S		
4	Clamping washer	63174102	S	0 0	
5	Guide ring	63174104			
6	Drum motor	see project data			
7	Welded container	63174101		\$555 VVI	
8	Carrier unit (without container)	see project data			
9	Round belt fitted with clamping unit (clamping sleeve, VA sleeve, joint bearing, snap ring) and welded	1130587	S		



## Decommissioning and disposal

- ▶ When disposing the motor oil, observe the disposal documents of the motor manufacturer.
- ▶ The packaging must be recycled to provide environmental relief.

#### **Environmental protection regulations**

For all work on and with the module, the legal regulations concerning waste avoidance and proper disposal and recycling must be followed.

#### **NOTICE**



Substances with a water hazard class, such as greases and oils, hydraulic oils, coolants or cleaning agents with solvents may not be allowed to come into contact with the ground or reach the sewer system!

- ▶ Store, transport, catch and dispose these substances in suitable containers!
- Observe the notices on the supply containers.
- ▶ Observe any additional national regulations.

# INTERROLL

#### Interroll Ultra Hygienic Transfer HT 1000

## **Declaration of incorporation**

In accordance with EC Machinery Directive 2006/42/EC, Appendix II 1 B

Manufacturer and person authorized to prepare the technical documents Interroll Trommelmotoren GmbH

Center of Excellence Hygienic Solutions

Opelstraße 3

41836 Hueckelhoven/Baal (Germany)

herewith declares that the conveyor module described below is an incomplete machine in accordance with the EC Machinery Directive:

Interroll Ultra Hygienic Transfer - S, M, L

The incomplete machine may only be started up if it has been determined that the complete machine/system into which the incomplete machine is to be installed meets the requirements of this directive.

The following safety and occupational health requirements as stated in Appendix I have been applied:

• 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.6, 1.3.7, 1.3.8, 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.5.4, 1.5.5, 1.5.6, 1.5.8, 1.5.9, 1.6.1, 1.6.2, 1.6.4, 1.7.1, 1.7.2, 1.7.3, 1.7.4

The special technical documents mentioned in Appendix VII B have been prepared and will be transmitted to the responsible authority if necessary. Transmission is performed electronically.

#### Applicable EC Directives:

- Machinery Directive 2006/42/EC
- EMC Directive 2014/30/EU

#### Applicable EC/EU regulations:

- Regulation 10/2011/EU
- Regulation 1935/2004/EU

#### Applied harmonized standards:

- EN 415-10:2014 "Safety of machinery Ergonomic design principles Part 1: Terminology and classification of packaging machines and associated equipment"
- EN 619:2011-02 "Continuous handling equipment and systems Safety and EMC requirements for equipment for mechanical handling of unit loads"
- EN ISO 12100:2011-03 "Safety of machinery General principles for design Risk assessment and risk reduction"
- EN 1672-1:2014-12 "Food processing machinery Basic concepts Part 1: Safety requirements"
- EN ISO 13854:2020-01 "Safety of machinery Minimum gaps to avoid crushing of parts of the human body"
- EN ISO 13849-1:2016-06 "Safety of machinery Safety-related parts of control systems -Part 1: General principles for design"



#### **Declaration of incorporation**

Hueckelhoven/Baal, dated 16 May 2022

Dr. Hauke Tiedemann Managing Director





## **Declaration of incorporation**

**UK Supply of Machinery (Safety) Regulations 2008** 

#### The manufacturer

Interroll Trommelmotoren GmbH Opelstr. 3 D - 41836 Hueckelhoven/Baal Germany

#### represented in the UK by

Interroll Limited
Unit 1a, Orion Way Kettering, Northants
NN15 6NL
England

#### hereby declares that the "incomplete machine"

• Interroll Ultra Hygienic Transfer

is an incomplete machine in the sense of the EC Machinery Directive (2006/42/EC), but complies with the following requirements according to Annex I of this Directive:

1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.6, 1.3.7, 1.3.8, 1.4.1, 1.4.2, 1.5.1, 1.5.2, 1.5.4, 1.5.5, 1.5.6, 1.5.8, 1.5.9, 1.6.1, 1.6.2, 1.6.4, 1.7.1, 1.7.2, 1.7.3, 1.7.4

The specific technical documentation according to Annex VII B has been prepared and will be submitted to the competent authority if required.

The commissioning of the incomplete machine is prohibited until the conformity of the overall machine/system in which it is installed with the UK Supply of Machinery (Safety) Regulations 2008 has been declared.

#### Further applied guidelines and resulting UKCA marking:

- UK Electromagnetic Compatibility Regulations 2016
- UK Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 212

#### Applied harmonized standards:

- EN ISO 12100:2011-03
- EN 60204-1:2019-06
- EN IEC 63000:2019-05
- EN 619:2011-02
- EN 1672-1:2014-12

#### Other standards applied:

- EN 60034-1:2011-02
- EN 60034-11:2005-04
- EN IEC 60034-14:2019-04
- EN IEC 60034-5:2021-05
- EN 60034-6:1996-08
- EN 61984:2009-11



#### **Declaration of incorporation**

• EN 61800-1:2018:11

The partly completed machine may only be put into operation when it has been established that the complete machine/system in which the partly completed machine is to be installed is to be installed, complies with the provisions of this directive.

#### Authorised for compiling technical documentation:

Interroll Trommelmotoren GmbH, Opelstr. 3, Germany - 41836 Hueckelhoven Hueckelhoven, 16th May 2022

Dr. Hauke Tiedemann

(Managing Director)

A. Vielman



## **Appendix**

#### Warranty for Interroll Ultra Hygienic Transfer

Interroll grants a two-year warranty on the Ultra Hygienic Transfer; the warranty applies to manufacturing and material defects and starts with the delivery or pickup at the factory. The warranty period is based on the regular operation of the product eight hours per day, provided no written agreement to the contrary is in effect.

As part of this warranty, Interroll repairs or replaces any defective product, free of charge, that is returned to the factory before the warranty period expires. The warranty period shall not be extended by repairs performed within the framework of the warranty.

#### Restrictions

Interroll and its dealers do not assume any liability for shutdowns or damage to the product that is due to the following causes:

- Non-observance of the installation or maintenance notes from Interroll
- · Operation of the motor without suitable motor protection
- Not connecting the internal Internal thermal circuit breaker (if available)
- · Reversing the rotational direction before the motor has reached complete standstill
- Use of the Ultra Hygienic Transfer under other conditions than those listed on the nameplate and/or in the current Interroll catalog or in the quote

Repairs, modifications or conversions to the product that are not performed by a qualified Interroll technician or service partner, void the warranty, unless such work was clarified beforehand with Interroll in writing.

#### **Exceptions**

The Interroll warranty excludes any liability for the following damages:

- · Damages caused by incorrect use or normal wear on materials used
- Costs for removal and return shipment of the product to Interroll as part of this warranty
- · Damage to other systems that are used in conjunction with the product
- Loss of income, injuries or other costs in conjunction with the failure of the product

#### Interroll Service

Do you any questions or issues?

Our Service Team will gladly provide support:

Hotline: +49 (0) 2193 - 23 222 E-mail: ceu.service@interroll.com







