



Installation and operating instructions

Spaceguard rotary packing table

For more information on
Wiring, further safety instruction, signage - please visit
www.spaceguard.co.uk

Safety note: A relevant risk assessment and safe working
method, must be carried out by the customer prior to use.
This manual contains important safety information regarding
your conveyor

Rotary Packing Tables



Rotary packing tables (Lazy Suzy) are used to increase accumulation capacity at the end of process lines, packing lines and conveyors.

Specifications

Table diameters: 800, 1000, 1200 & 1500mm
Top material: Food grade nylon

Frame material: Stainless steel
Guide material: Stainless steel
Leg material: Stainless steel
Table finish: 2b or dp1

Table Height: To suit application
Conveyor loading: 100 kg

Support detail: Welded 'H' section (+/- 50mm)

Drive detail; Geared motor
Input voltages: 1ph 240V, 3ph 240V or 3ph 400V

Table options

- Product diverter
- Start / Stop Button
- Variable speed control
- Emergency stop

This product is manufactured with stainless steel frames and support stands for food applications



Conveyor Training

Prior to operation, a process risk assessment should be carried out and a safe working procedure adopted. Followed by training of operators and maintenance people along with any person exposed to this machine.

**Further to your valued conveyor order, Spaceguard as a conveyor manufacturer is able to offer conveyor and safety training if you require.
This will be at an additional cost**

Additional Training

We would always recommend application specific training for your staff prior to using any conveyor or automation item. This would normally also include manual handling techniques and use of PPE. When using, loading and unloading conveyors correct manual handling techniques should be used. We would also recommend as part of your training, you highlight any areas of residual risk, (and guard if required) and ensure they do not go underneath a moving conveyor.

Assembly and installation

Assembly

The conveyor is supplied part pre assembled - if 3m or under or part assembled if over 3m, at the customers site, assembly has to be completed by the customer and then erected and connected.

- Wind the locking nut onto the adjustable foot of castor and wind the foot into the leg, fix legs onto the conveyor
- Ensure all conveyor fixings are tight
- Set the conveyor to the required height using the adjustable feet and use the locking nuts to secure them - Use a spirit level for this task
- If using adjustable feet, secure the conveyor to the ground, with the relevant fixing kit, ensuring the frames are not warped.
- When aligning the conveyor ensure, ensure there is no contact between moving parts.
- Once the conveyor is fixed in position fit and join the belt



WARNING

Risk of injuries due to incorrect assembly

- A risk assessment and method statement must be carried out prior to final assembly and installation.
 - Assembly must be carried out by competent and qualified personnel in accordance with the relevant safety instructions.
 - Carefully assembly all connections, eg cables, hoses and pipes and check they are corrected correctly
-
- Pay attention to the tension of the belt—ensuring it locates in sprockets
 - After conveyor installation, make sure passageways are clear. If conveyors are to be crossed, put in walkways
 - When integrating conveyor into a system or a process, a risk assessment must be carried out for the conveyor to reach conformity, Always consider possible danger zones including areas where crushing and cuts can occur.

Electrical Installation



DANGER

Danger of death due to live cable ends!

- Electrical installation should only be carried out by qualified / competent electrical personnel
 - Disconnect from power supply
 - Observe the minimum bending and wear
-
- Power is to be supplied to the conveyor by relevant isolated plug or direct into a control panel through an isolator
 - Always check cable for damage
 - Connect motor in accordance with EN-IEC 60204-1 - refer to motor wiring pages for wiring information

Start up and operation

Initial Start up - *To be carried out by competent persons*

WARNING



Risk of injuries due to incorrect handling

- Check risk assessment and method statement have been carried out.
 - Check electrical connections and protective equipment
 - Ensure all unauthorised / untrained personnel are removed from the area
 - Wear appropriate PPE
-
- Check direction of travel prior to initial start up. If required correct the direction. (The belt must be pulling towards the motor.)
 - Check the belt tension and adjust if required.

Operation

Prior to each operation

- Check the conveyor for signs of visual damage. Pay special attention to belts, support stands and wiring
- Ensure that all safety equipment is functioning properly
- Make sure only authorised and trained personnel are in the conveyor work area
- Ensure the work area is clear from obstruction and is tidy
- Provide instructions and monitor, loading and unloading the conveyor

WARNING



Rotating parts!

Crushing and serious injury due to being caught and pulled into the conveyor

- Do not remove any guarding
 - Never wear loose clothes and tie long hair back
 - Keep hands and body parts away from moving parts
 - Follow safe working practice when using conveyors
-
- If goods become trapped, switch off and isolate the conveyor prior to eliminating the fault

Procedure for accidents or malfunctioning

- Stop the conveyor and isolate
- Accident - Apply first aid and call emergency services
- Inform a specialist (A specialist must eliminate the fault)
- Only restart after the conveyor has been deemed safe by a specialist

Disposal

- Adhere to the manufacturers disposal documents when disposing of oil, recycle parts if possible.

Environmental - considerations

- Turn off the power to the conveyor when not in use
- Ensure waste oils, belts etc are disposed of in accordance to regulations

Conveyor Safety

Basic Safety instructions



The conveyor was generally safe to operate at time of delivery, however dangers may still arise during use. A safe working practice, risk assessments must be carried out by the user covering all aspects of use within the incorporated system, process or machine. All staff to be properly trained in all aspects.

- Danger of personal injury or death for operators and others
- Adverse effects on the conveyor and other items

Non adherence to the information in these instructions can result in life threatening injury.

Intended use

The modular belt conveyor is intended for incorporation in a wide range of industrial systems, machines and food environments to transport goods.

Do not exceed the conveyor limits, if unsure contact your conveyor supplier

Incorrect Use

The conveyor is not intended to transport, people and some powered items

Specialists

Specialists are people who have knowledge of conveyor items and understand the instructions, and have the ability to carry out work professionally whilst observing regulations

Competent Person

A person is regarded as competent if they have 'sufficient training and experience or knowledge and other qualities to properly and safely carry out the required operation ' without causing risk to themselves or others.

Electricians

Electricians must be able to assess and recognise possible dangers when performing tasks, due to training, experience and knowledge of regulations.

Motor wiring diagrams are available In this manual

EMC

All applicable components within Spaceguard conveyors conform to the relevant EMC standards, A copy of the relevant certificates are held within our technical files. EMC testing should be carried out on the machine as a whole in its finished form by the customer.

Conveyor Safety

Dangers



The following dangers are some of the various dangers which may occur when operating, maintaining or cleaning the conveyor.

Safety Equipment

- Only carry out maintenance when the conveyor is switched off and measures taken so it cannot be started
- Organise additional measures to restrict access to the conveyor
- Never remove any guarding whilst the machine is running.
- Regularly inspect safety equipment and barriers

Electricity

- Never reach into a live machine

Rotating parts

- Never wear loose clothing
- Never wear jewellery
- If long hair - wear a hair net

Work environment

- Keep work area tidy and clear of obstruction
- Wear safety shoes + other site minimum PPE
- Monitor work practice

Malfunctioning

- Inspect the conveyor for damage
- Be aware of any smoke or unusual noises, (Isolate at mains and seek advise)
- Clean up any oil spills
- Do not climb on the conveyor

Maintenance

- Carry out maintenance regularly
- Only use original spare parts

Incorporation

Danger zones can arise when integrating the conveyor into a system, machine or process. These danger zones are not covered in these instructions. These must be analysed during final assembly and installation and first start up. *Safe working practices and relevant training should be given to personnel.*

If necessary, implement and add further constructional methods

Conveyor Safety

 <p>Do Not Climb, Sit, Stand, Walk, Ride, or Touch the Conveyor at Any Time</p>	 <p>Do Not Perform Maintenance on Conveyor Until Electrical, Air, Hydraulic and Gravity Energy Sources Have Been Locked Out and Blocked</p>	 <p>Operate Equipment Only With All Approved Covers and Guards in Place</p>
 <p>Do Not Load a Stopped Conveyor or Overload a Running Conveyor</p>	 <p>Ensure That All Personnel Are Clear of Equipment Before Starting</p>	 <p>Allow Only Authorized Personnel To Operate or Maintain Material Handling Equipment</p>
 <p>Do Not Modify or Misuse Conveyor Controls</p>	 <p>Keep Clothing, Body Parts and Hair Away from Conveyors</p>	 <p>Remove Trash, Paperwork and Other Debris Only When Power is Locked Out</p>
 <p>Ensure That ALL Controls and Pull Cords are Visible and Accessible</p>	 <p>Know the Location and Function of All Stop and Start Controls</p>	 <p>Report All Unsafe Conditions</p>

POST IN PROMINENT AREA

Transport, movement and storage

The conveyors will be delivered generally on a pallet, secured with strapping and heat shrunk. On the pallet, there will be the conveyor items, supports, fixings etc along with a incorporation paperwork and drum motor wiring.

Transport and movement

CAUTION



Risk of injuries due to incorrect transport or movement

- Transport must be carried out by qualified authorised and trained personnel. Spaceguard recommends a risk assessment and safe working method assessments are carried out prior to any transport or movement.
- Ensure people are not in danger - lift zone
- Ensure pallet and conveyors are lifted and moved safely, we would recommend due to the size and nature of the items moved a specific risk assessment and safe working procedure should be carried out and adopted.
- Wear appropriate PPE

Delivery

- Prior to signing from the carrier the pallet must be inspected for damage. Notify the driver, by writing on their paperwork as damaged and contact your supplier. The carrier must be notified at time of delivery, to prevent any claims being refused.

Storage

WARNING



Risk of injuries due to incorrect Storage

- Do not stack conveyors on top of each other
- Do not place other objects on the conveyor
- Ensure conveyor is safely positioned prior to leaving it
- If the conveyor is not to be used straight away, protect from moisture and dust.

Electrical Installation

DANGER



Danger of death due to live cable ends!

- Electrical installation should only be carried out by qualified / competent electrical personnel
 - Disconnect from power supply
 - Observe the minimum bending and wear
-
- Power is to be supplied to the panel by relevant isolated plug or direct into a control panel through an isolator
 - Always check cable for damage
 - Connect motor in accordance with EN-IEC 60204-1 - refer to motor wiring pages for wiring information

WARNING



Risk of injuries due to incorrect assembly

- A risk assessment and method statement must be carried out prior to final assembly and installation.
- Assembly must be carried out by competent and qualified personnel in accordance with the relevant safety instructions.
- Carefully assembly all connections, eg cables, hoses and pipes and check they are corrected correctly

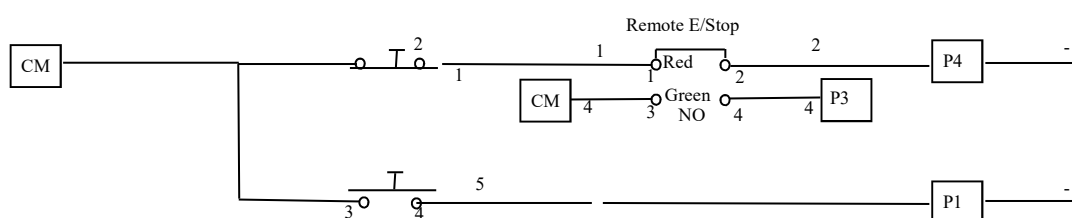
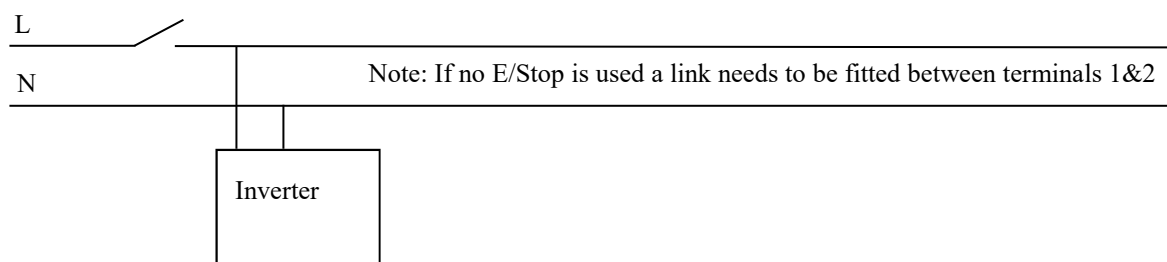


Notice

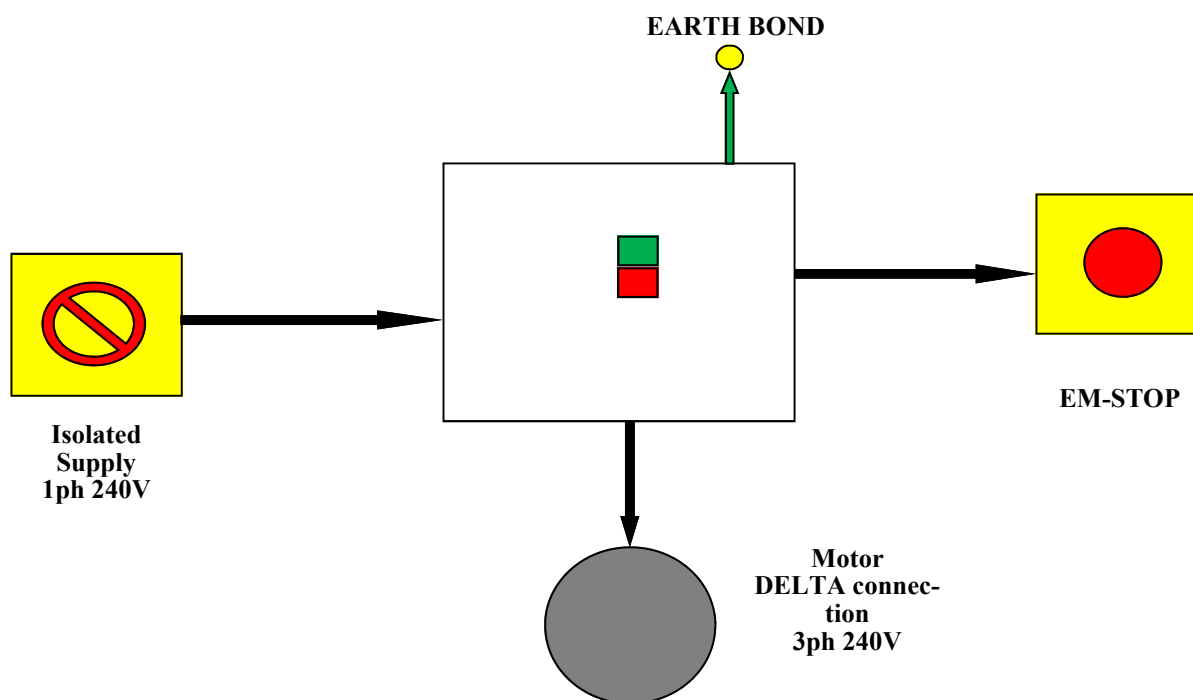
Risk of injuries or death due to incorrect assembly

- Always ensure panels and electrical items are correctly earth bonded.
- Earth bonding and testing must be carried out by competent and qualified personnel in accordance with the relevant safety instructions, prior to putting this panel into service.

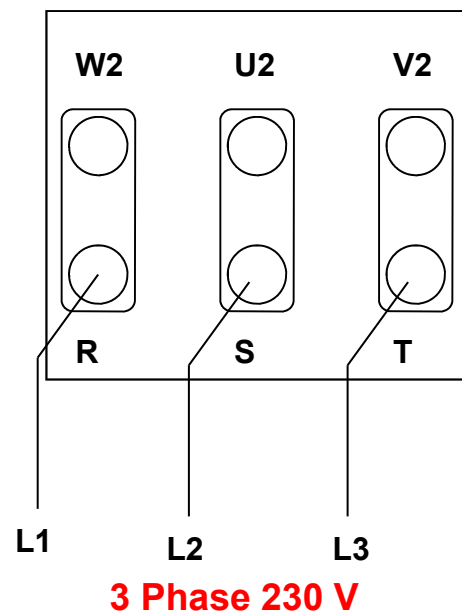
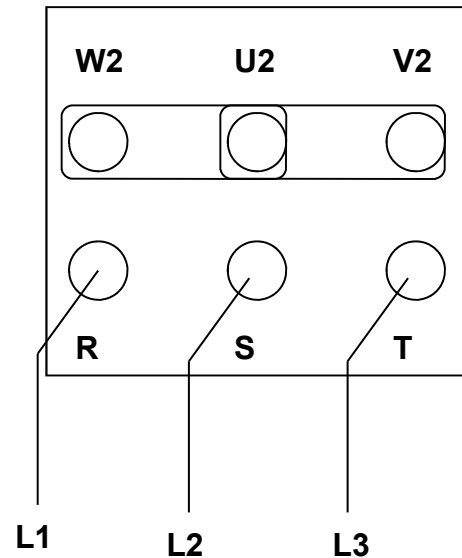
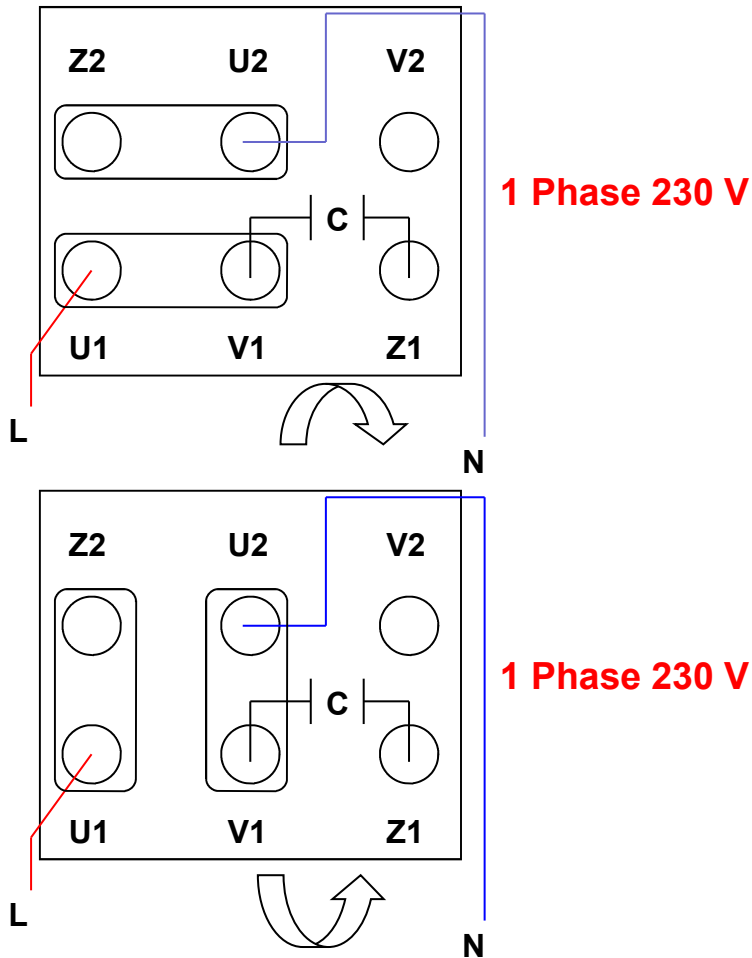
Wiring diagram: Panel
Single drive. Start / Stop / Estop
Input Voltage : 1ph 240V
Output Voltage: 3ph 240V (Delta wiring)



Panel Connection



Geared Motor Wiring



Motor Rating Plate

Control panel inspection certificate

The manufacturer
Spaceguard Limited
Bergen Way, Hull, UK

Hereby declares that the control panel supplied

- Serial numbers between: 11000 - 13000

Is not a ready to use panel according to the EC machinery directive and therefore does not fully comply with the requirements of this directive.

Initial start up of these panels is not permitted until conformity of the entire machine / system / process in which they are installed has been declared via the EC machinery directive!

Insulation resistance test 1000V		
Control cables > 200MΩ	L1 to N > 200MΩ	N to PE > 200MΩ L1 to PE > 200MΩ

General

Panel wiring to BSEN 60204

All conveyor wiring to BS 7671 IEE regulations



Neil Ellerby
Director
29.08.2015

Safety Data Sheets for Plastic materials

Storage

Keep in a neutral environment and do not expose products to direct sunlight.

Do not expose modules to extreme temperatures or open flame.

Plastic products are flammable. If exposed to open flame

Installation

Use foot protection.

Use eye protection.

Use Gloves.

To avoid personal injury or damage to product, do not attempt to connect or disconnect conveyor modules unless you are familiar with conveyor module construction.

Before installing ensure materials are suitable for the application.

When connecting or disconnecting mechanisms

Always lock out equipment power switch before removing or installing conveyor modules.

Use proper tools which should be in good condition.

Support the belt or chain to prevent uncontrolled movement.

Warnings

Fire

Modular plastic products are, unless clearly specified, made from materials which support open flame.

Products made from POM material (D, I, LF and SLF), when so exposed, will emit toxic fumes. Modular plastic products should therefore not be exposed to extreme temperatures or open flame. Special care should be taken when undertaking repair work particularly when welding at a conveyor if the conveyor is fitted with plastic chains or belts.

Personal Protection

Always use safety glasses when mounting or repairing chains and belts and while securing or removing pins.

Use only suitable tools in good condition.

The weight of some products calls for the use of safety shoes. When installing/removing or repairing chains or belts on a conveyor, the motor must be turned off.



SPACEGUARD

Safety Data Sheets for Plastic materials

Material: POM (D, D-I, LF and SLF)

Hazards identification:

Health hazard - general	No known danger
Health hazard - inhalation	Inhalation of vapours can cause irritation to the nose, throat and respiratory tract.
Health hazard - skin	Is non irritating to skin. Contact with molten product should however be avoided.
Health hazard - eyes	In normal use exists no danger. Heating can give vapours that might be irritating on eyes.

First-aid measures:

First aid - inhalation	Not ordinarily required. Inhale fresh air if necessary.
First aid - skin	If contact with molten product occurs, treat as for ordinary burns.
First aid - eyes	Flush eyes with water. If irritation remains, get medical attention.
First aid - ingestion	Flush mouth and give some water. Get medical attention if a larger quantity has been ingested.

Fire-fighting measures:

Fire and explosion hazard	If material burns hazardous vapours may occur.
Preventive measures in case of fire	Avoid inhalation of vapour. In a large fire use protective inhalation equipment to avoid vapours.
Emergency action in case of fire	Use foam, dry chemical or carbon dioxide.

Material: Polypropylene - PP

Hazards identification:

Health hazard - general	This product has been evaluated and does not require any hazard warning on the label under EU.
Health hazard - inhalation	No significant irritation expected other than possible mechanical irritation.
Health hazard - skin	No significant health hazards identified. Particles or fibres may cause slight discomfort similar to rubbing sand against the skin. Heated material can cause thermal burns.
Health hazard - eyes	No significant health hazards identified. Particles or fibres may cause slight discomfort similar to getting dust in the eye.

First-aid measures:

First aid - inhalation	If adverse effects occur, remove to uncontaminated area. Get medical attention.
First aid - skin	Wash exposed skin with soap and water. Get medical attention.
First aid - eyes	Flush eyes with plenty of water.
First aid - ingestion	If a large amount is swallowed, get medical attention.

Fire-fighting measures.

Fire and explosion hazard	High dust concentrations have a potential for combustion or explosion.
Preventive measures in case of fire	High-voltage static electricity build-up and discharge must be avoided when significant quantities of dust are present.
Emergency action in case of fire	Agents approved for Class A hazards (e.g. foam, steam) or water fog.

Safety Data Sheets for Rotary table top

Material: Polyethylene - PE

Hazards identification:

Health hazard - general	This product is not a hazardous material according to EEC Directive 67/548
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First-aid measures:

First aid - inhalation	Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.
First aid - skin	If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
First aid - eyes	Flush thoroughly with water. If irritation occurs, call medical assistance.
First aid - ingestion	Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

Fire-fighting measures:

Extinguishing Media	CO2, dry chemicals and water fog, foam
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Warnings

Fire

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Personal Protection

Always use safety glasses when mounting or repairing chains and belts and while securing or removing pins.

Use only suitable tools in good condition.

The weight of some products calls for the use of safety shoes. When installing/removing or repairing chains or belts on a conveyor

The logo for SPACEGUARD, featuring the word "SPACEGUARD" in a bold, blue, sans-serif font. The letters are slightly shadowed, giving it a 3D appearance as if it's floating above a reflective surface.



Cleaning Guidelines

Following is a method for cleaning a conveyor. When cleaning a conveyor, always clean top to bottom and from the center out. This will be the most efficient method.

1. Dry Clean

Remove large pieces of debris from the belting/chain. Make sure that the sprockets, shafts and supporting features (guide rails, product supports, etc.) are also cleaned of debris.

Conveyor Maintenance Schedule + Spares requirements

Conveyor maintenance, service and daily checks are an essential part of the reliable, safe running of any conveyor. Failure to carry out these simple checks, may have a detrimental effect on the conveyor. Below is the outlined recommended checks and maintenance detail for Rotary Packing Tables.

Daily checks by nominated operator

- Check condition of Table
- Check for obvious signs of wear or loose fixings
- Check for foreign bodies lodged on or in the Table
- Check condition of warning signs and operating procedure
- Check condition of electric buttons and knobs - (Do not open panels)
- Check all personal using have had relevant training
- Check rotation is ok. (inform maintenance if this need adjusting)

Conveyor Maintenance - To be carried out by suitable qualified person

- Check condition of table
- Investigate Drive sprockets and support rollers for signs of wear.
- Check condition of external wiring.
- Tighten any loose fixings
- Grease any bearings as required
- Check and adjust shaft as required
- Check condition of warning signs and operating procedure
- Check condition of electric buttons and knobs
- Look over conveyor body for signs of damage
- Check condition and functionality of guarding directly associated with the conveyor and conveyor process + report

Conveyor maintenance should be carried out on a regular basis by a competent person, Contact us to ascertain service interval for your product.

Spare parts

We would always recommend the stocking of spare parts which minimises down time on conveyors, in the event of a part failure.

Geared motor (Normally 2 to 5 days)

Drive shafts (Normally 1 week)

Drive bearings (Normally next day)

Idler roller (Normally 2 to 5 days)

Table top (Normally 7 days)

Costing and accurate delivery details, available on request

Conveyor Number: _____

Conveyor Maintenance check list. Please fill out date and sign once work complete

[illegible]

Manufacturers declaration

According to EC Machinery Directive 2006/42/EC

The manufacturer

Spaceguard Limited

Bergen Way, Hull, UK

Hereby declares that the conveyor module described

- Rotary Packing Table
- Serial numbers between: 12000 - 15000

Is not a ready to use machine according to the EC machinery directive and therefore does not fully comply with the requirements of this directive.

Initial start up of these conveyor modules is not permitted until conformity of the entire machine / system / process in which they are installed has been declared via the EC machinery directive!

Applied EC directives

Machinery directive 2006/42/EC
Low voltage directive 2006/95/EC
EMC Directive 2004/108/EC

Applied harmonised standards

EB ISO 12100 Pt 1 & Pt2
EN 294 Safety of machinery to prevent danger zones been reached
EN 349 Safety of machinery, minimum distances to avoid crushing
EN 60204-1

A handwritten signature in blue ink, appearing to be "NE" followed by a horizontal line.

Neil Ellerby
Director
24/02/2016



Declaration of EC Conformity

According to the guidelines of the council for adjustment of the legal stipulations for the member states: 2006/42/EC

The manufacturer

Spaceguard Limited

Bergen Way, Hull, UK

Hereby certify that the conveyor module described belt

- Rotary Packing Table
- With serial number: 12000 to 15000

Complies with all the relevant provisions of the EC Machinery directive and the national laws and regulations adopting this directive. Any modifications to the machine will render this declaration null and void.

Applied EC directives

Machinery directive 2006/42/EC
Low voltage directive 2014/35/EU
EMC Directive 2004/108/EC

With reference to:

EB ISO 12100 Pt 1 & Pt2
EN 30204-1-2006+A1:2009 Electrical equipment of machines
EN 619: 2002 Continuous handling systems and equipment
EN 294 Safety of machinery to prevent danger zones been reached
EN 349 Safety of machinery, minimum distances to avoid crushing
EN 60204-1

On behalf of Spaceguard limited

A handwritten signature in blue ink, consisting of stylized, overlapping letters that appear to be 'A' and 'L'.

Director

SPACEGUARD