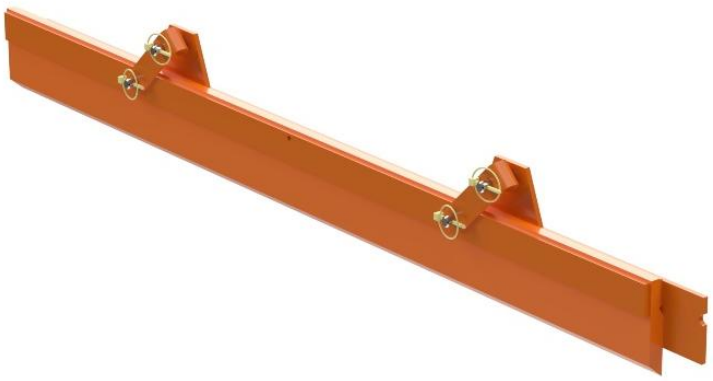
Martin® GravitySeal™ Self-Adjusting Skirting





Operating Instructions

Version: 0
Language: ENG
M3612E UK 2026-10 GravitySeal

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1 General



NOTE

Before starting work these operating instructions must be read and understood completely.

1.1 About these operating instructions

These operating instructions apply solely for Belt Sealing Martin® GravitySeal™ and are intended for those persons who install Martin® GravitySeal™, commission them, and monitor their usage.

The operating instructions must be kept for the lifetime of the Martin® GravitySeal™ and must be made available in an orderly condition to all persons entrusted with work with and on the Martin® GravitySeal™.

1.2 General information

The Martin® GravitySeal™ is a self-adjusting conveyor belt skirting system that prevents spillage without requiring regular service to maintain an effective seal.

It is used on the fixed enclosures of the closed loading areas of belt conveyors for bulk materials. It is used for sealing against the surface of smooth conveyor belts.

Designed for conveyors with minimal free belt edge (38 mm) and featuring a seal and clamp assembly that can be installed in spaces with low clearance (152 mm) to the belt.

The Martin® GravitySeal™ is designed to provide a sealing against the belt surface. It is not intended to guide the flow of bulk material. To protect the Martin® GravitySeal™ from the flow of bulk material, it is essential to install a wear liner that ensures the smallest possible gap to the belt surface. This reduces the amount of bulk material coming into contact with the Martin® GravitySeal™ to a minimum.

The Martin® GravitySeal™, like all skirting systems, is susceptible to belt mistracking. Make sure that the edge of the belt does not move under the seal and that the seal drops beside the edge of the belt. Failure to keep the belt properly tracked may result in premature failure of the skirt material, damage to the belt or conveyor system, and unnecessary spillage.

1.3 Intended usage

The Martin® GravitySeal™ may only be used

- in industrial areas above ground
- on the carrying side of the conveyor belts
- according to the technical data in the documentation
- in the installation position as described in the documentation

The usage of the Martin® GravitySeal™ is only considered to be as intended if the following conditions are also fulfilled:

- Before starting initial work, the personnel must have been instructed on the work on the system and on all relevant issues of occupational health and safety
- Any personal protective equipment required must be worn
- The provisions of the operating instructions must be observed in full.

The Martin® GravitySeal™s are not suitable,

- to hold back ejected objects, especially machine parts, conveyor belts or bulk material,
- to hold back released energy from explosions or divert it in a safe direction, or
- to retain hazardous substances, noise or radiation.
- to absorb additional loads caused, for example, by deposited objects or people stepping on the Martin® GravitySeal™.
- to be used in any potentially explosive areas of ATEX Zones as well as underground, as they are not designed for this purpose.

Operation of the Martin® GravitySeal™ under deviating conditions and unauthorised modification of the Martin® GravitySeal™ is considered as improper usage.

1.4 Personnel qualification

Only authorised and qualified personnel may be entrusted with work with and on the Martin® GravitySeal™. Persons are considered qualified if they have the qualification of a skilled worker and meet all the following requirements:

- completed professional training or at least 5 years of professional experience in the field,
- technical experience,
- knowledge of the relevant occupational health and safety regulations.

The persons must

- be able to assess the tasks and risks assigned to them,
- be able to recognise potential dangers in advance,
- be physically and cognitively able to operate the conveyors and the Martin® GravitySeal™ safely,
- have been trained and instructed appropriately,
- have read and understood these operating instructions.

1.5 Part number

Martin® GravitySeal™
Self-Adjusting Skirting Clamp Assembly **37911–XX** **[Blade not included]**

Martin® GravitySeal™
Self-Adjusting Skirting Rubber Strip **37911–R** **[Specify length required in feet]**

Martin® GravitySeal™
Self-Adjusting Skirting Urethane Strip **100785UX**
[X=Urethane color, OR= Orange, G = Green]

1.6 Technical Data

The Martin® GravitySeal™ Self-Adjusting Skirting **with Rubber Strip** is suitable for the following operating parameters:

	Operating parameter for Rubber
Belt speed:	Max. 3,0 m/s
Temperature range:	-30 – 121 °C for Rubber
Trough angle	0 – 45°
Reversing operation:	No
Belt Rollback	No

The Martin® GravitySeal™ Self-Adjusting Skirting **with Urethane Strip** is suitable for the following operating parameters:

	Operating parameter for Urethane
Belt speed:	Max. 4,5 m/s
Temperature range:	-40 – 150 °C depending on PU type
Trough angle	0 – 45°
Reversing operation:	No
Belt Rollback	No

2 Safety

2.1 General safety instructions



DANGER

Entanglement in conveyor belt

Clothing or body parts can become entangled in the conveyor and cause serious or fatal injuries.
Tensions may be released in the conveyor belt and cause movement of the bulk material without prior detection.

- *Do not carry out any work on the conveyor belt while it is in operation or reach into the moving conveyor belt!*
- *Secure the conveyor against unintentional restart! Use lockout / tagout / blockout / testout procedures!*
- *Install suitable guards to prevent access to the infeed section!*



WARNING

Flying objects

Objects left on or in the conveyor can fly around uncontrollably when the conveyor is switched on and can hit and injure persons.

- *Before switching on the conveyor, remove all foreign objects such as tools, devices, etc. from the belt!*



WARNING

Risk of falling down

Martin® GravitySeal™ is often mounted and operated in heights. There may be a risk of falling down.

- *Therefore, use a fall protection device when installing in higher working areas!*



WARNING

Heavy weight

The Martin® GravitySeal™ may have weights that require handling by lifting devices. Handling Martin® GravitySeal™ by hand can cause serious skeletal injuries.

- *Use suitable aids if the load is > 25 kg per person!*
- *Identify the centre of gravity! Ensure that the Martin® GravitySeal™ cannot tilt during the lifting process!*

WARNING

Working in confined spaces

Areas in which cleaners are installed are often difficult to access and include confined spaces. It is often necessary to work in difficult positions.

– *Determine whether occupational safety measures are necessary that go beyond the usual measures!*

2.2 Personal protective equipment

Persons carrying out work on the Martin® GravitySeal™ must wear suitable personal protective equipment. Minimum requirements:

Symbol	Meaning
	Wear head and eye protection
	Wear at least ankle-high foot protection
	Use gloves
	Use fall protection, if required

2.3 Safety markings on the system

The safety markings on the Martin® GravitySeal™ or close by must be kept in good condition and clearly visible at all times.

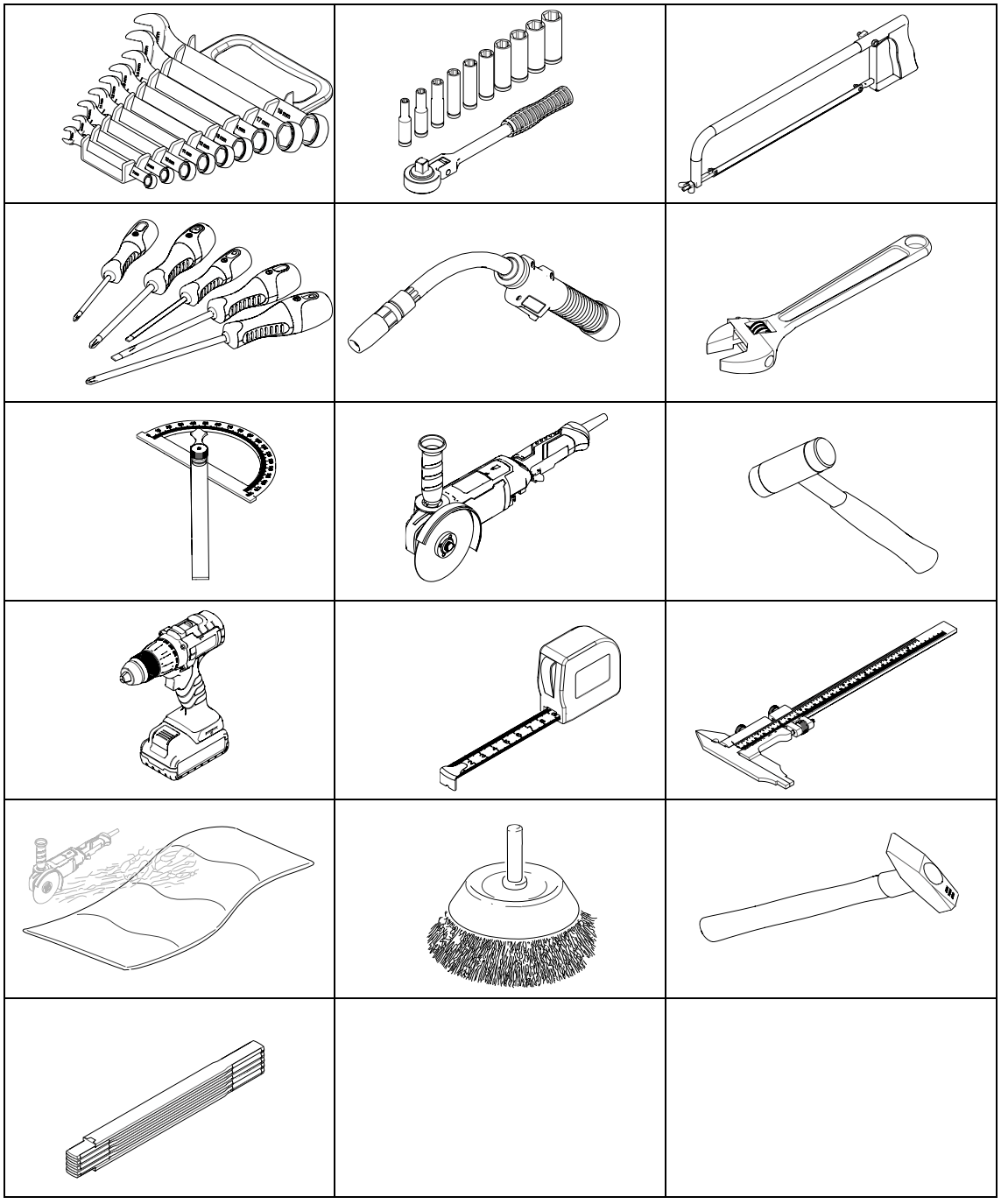
If parts of the system are replaced, ensure that the spare parts are or will be provided with appropriate safety markings.

3 Before Installation

3.1 Unpacking/transportation

When unpacking, all components must be checked for completeness and intactness.

3.2 Required maximum of tools and materials



4 Installation



DANGER

Entanglement in conveyor belt

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The Martin® GravitySeal™ may have weights that require handling by lifting devices. Handling Martin® GravitySeal™ by hand can cause serious skeletal injuries.

- *Use suitable aids if the load is > 25 kg per person!*
- *Identify the centre of gravity! Ensure that the Martin® GravitySeal™ cannot tilt during the lifting process!*



WARNING

Working in confined spaces

Areas in which cleaners are installed are often difficult to access and include confined spaces. It is often necessary to work in difficult positions.

- *Determine whether occupational safety measures are necessary that go beyond the usual measures!*



WARNING

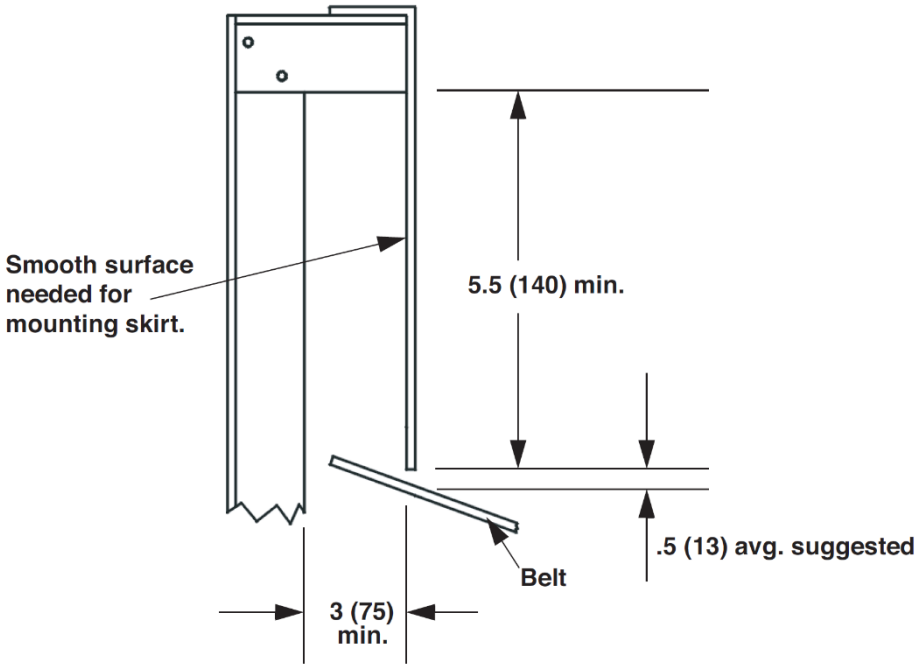
Flying objects

Objects left on or in the conveyor can fly around uncontrollably when the conveyor is switched on and can hit and injure persons.

– *Before switching on the conveyor, remove all foreign objects such as tools, devices, etc. from the belt!*

4.1 Determining the installation position

4.1.1 Minimum Space Required for Installation



4.1.2 Recommendations for Wear Liners

NOTE

The Martin® GravitySeal™ is designed to provide a sealing against the belt surface. It is not intended to guide the flow of bulk material.

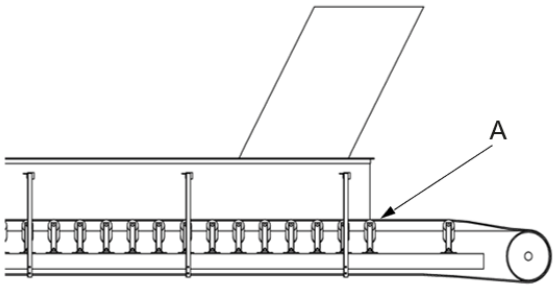
To protect the Martin® GravitySeal™ from the flow of bulk material, it is essential to install a wear liner that ensures the smallest possible gap to the belt surface. This reduces the amount of bulk material coming into contact with the Martin® GravitySeal™ to a minimum.

The installation dimensions shown below apply only to **wear liners** on typical conveyors.

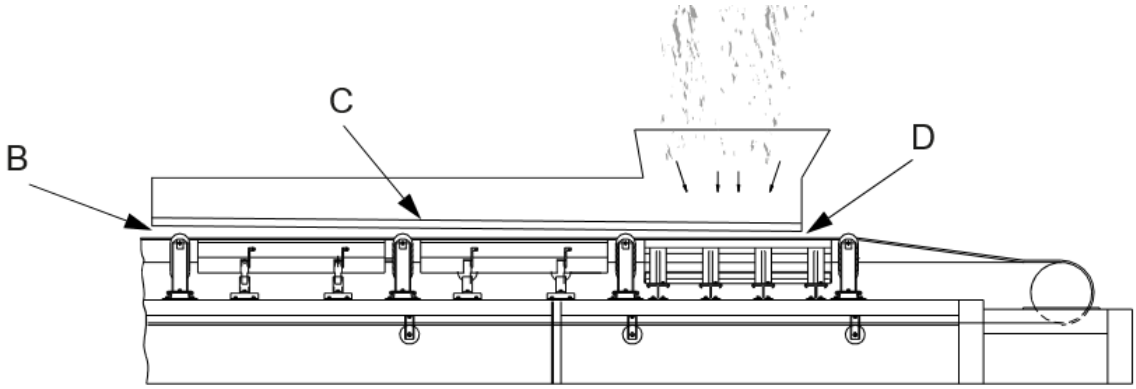
The dimensions shown between the wear liner and the belt surface **must be checked and determined on a case-by-case basis**.

This is because parameters are involved which cannot be taken into account in these general dimensional specifications.

It is essential that the gap increases in the direction of belt travel. This ensures that potentially stuck bulk material particles can free themselves as the conveyor belt runs.

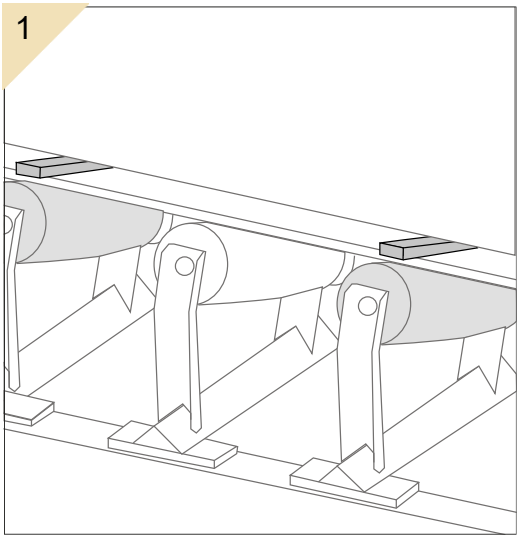


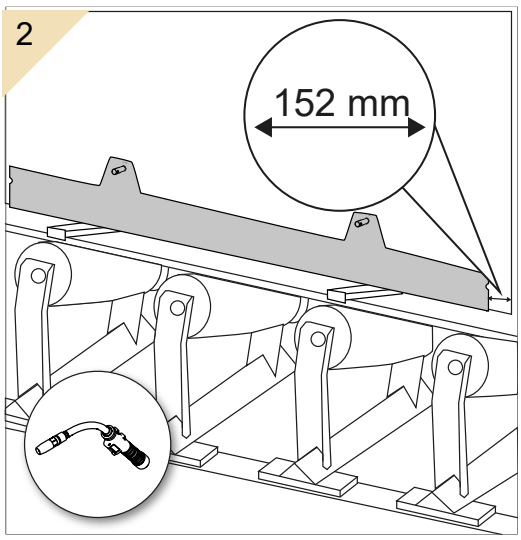
Pos.	Description
A	Start Point
B	Wear Liner ≈ 19 mm from belt
C	Wear Liner
D	Wear Liner ≈ 9,5 mm from belt

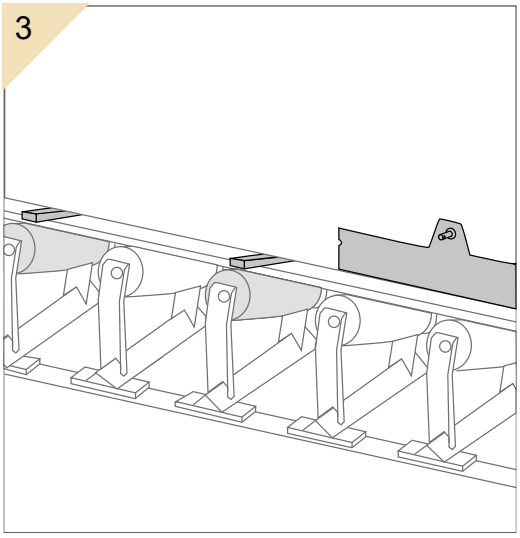


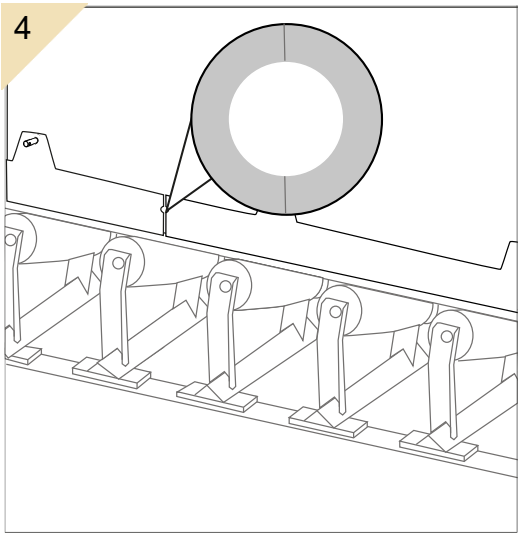
4.2 Mounting the Martin® GravitySeal™

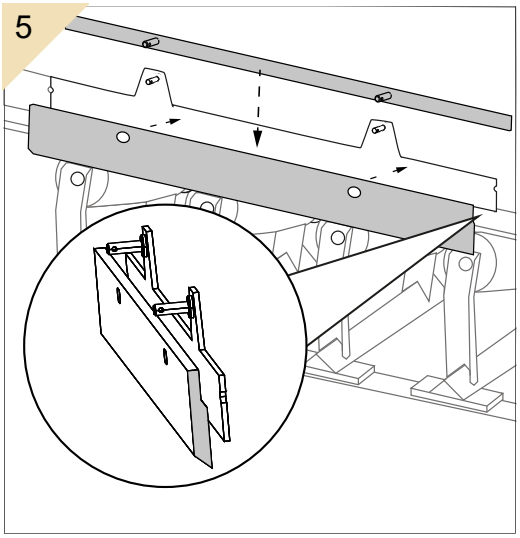
Please also refer to the drawing at the end of these Operating Instructions!

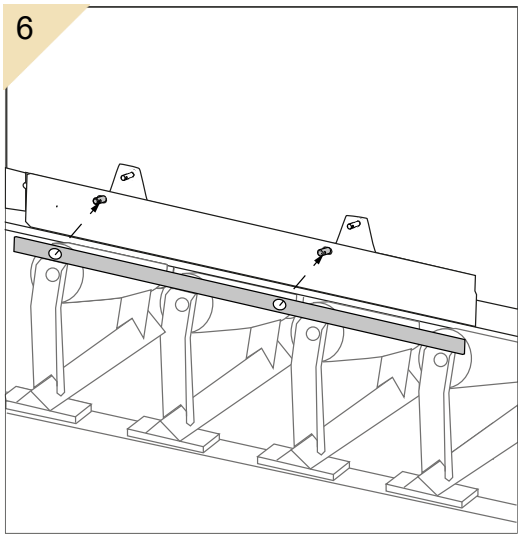




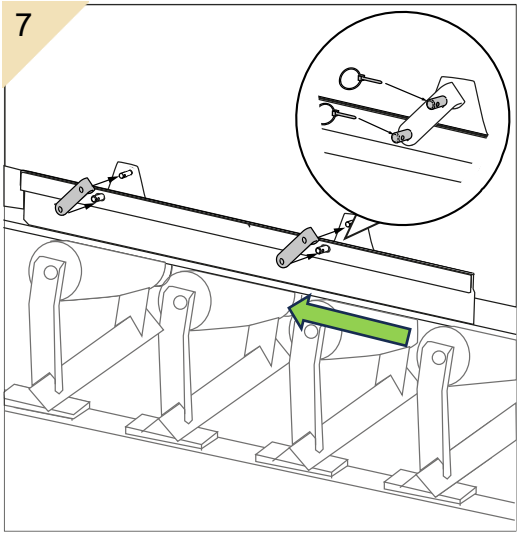








7



NOTE

The Martin® GravitySeal™ is not designed for reversible operation or belt rollback.

Please check the direction of belt travel.

The suspension arms of the Martin® GravitySeal™ must always point in the direction of belt travel so that the seal cannot get stuck due to the belt's movement but instead 'floats' freely on the belt surface.

4.3 Placing labels

4.3.1 Safety label

The safety label below must be attached to the conveyor system in the immediate vicinity of the Martin® GravitySeal™:



4.3.2 Other labels

The labels below are supplied with the product:

1. Sticker showing the address of the Martin Engineering branch and the designation of the product

5 Maintenance / Repair



DANGER

Entanglement in conveyor belt

Clothing or body parts can become entangled in the conveyor and cause serious or fatal injuries.
Tensions may be released in the conveyor belt and cause movement of the bulk material without prior detection.

- *Do not carry out any work on the conveyor belt while it is in operation or reach into the moving conveyor belt!*
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- *Therefore, use a fall protection device when installing in higher working areas!*



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Heavy weight

The Martin® GravitySeal™ may have weights that require handling by lifting devices. Handling Martin® GravitySeal™ by hand can cause serious skeletal injuries.

- *Use suitable aids if the load is > 25 kg per person!*
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WARNING

Danger of injury due to unapproved component parts

Unapproved parts can directly or indirectly cause personal injury or damage to property.

– *Only use accessories and spare parts that are distributed by the manufacturer or are explicitly approved (in writing)!*

Interval	task
weekly	Check that all securing parts are tightened. Tighten any loose connections as required.
	Clean all warning labels. Replace any warning labels which are illegible.
	Observe the action of the sealing. Scheduled clean-up, hose down the skirting or otherwise clean it to insure free-floating action. Clean accumulated build-up or jammed material as required for free-floating operation.
Monthly	Check and make sure that the sealing moves freely. To do this, lift the sealing slightly.
If required	Replace worn or broken components when needed to maintain the free-floating action without excessive side movement.

NOTE

Remove equipment from service if there is any indication it is not functioning properly. Call Martin Engineering or representative for assistance. Do NOT return equipment to operation until the cause of the problem has been identified and corrected.

6 Disassembly / Recycling / Disposal



DANGER

Entanglement in conveyor belt

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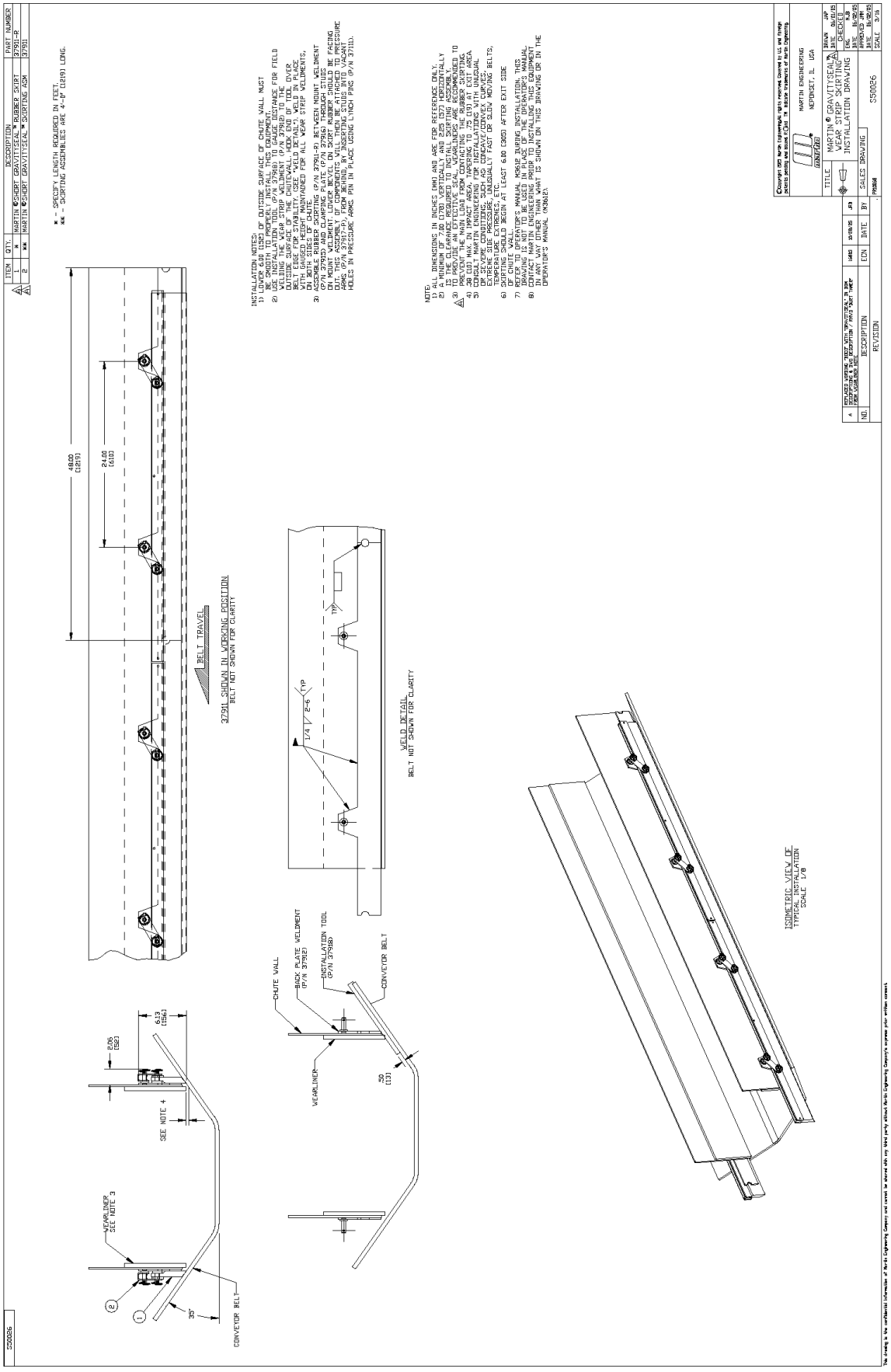
1. Disassemble Martin® GravitySeal™ by material groups as far as possible.
2. Contact official bodies (disposal centres, authorities) and request information about proper disposal or recycling possibilities.
3. Recycle the different materials.

Only materials that cannot be reasonably recycled may be disposed of. Disposal must be carried out professionally.

Material groups that can be fed into a recycling process include:

- Sheet steel
- Steel profiles
- Plastics
- Rubber
- Non-ferrous metals
- Electrical cables
- Electrical components (with copper content)
- Lubricants

7 Scope of delivery and spare parts



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