Martin® GravitySeal™ Self-Adjusting Skirting HD Max



Operating Instructions

Version: 0
Language: ENG
M9612E UK 2026-10 GravitySeal HD Max

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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™ Self-Adjusting Skirting HD Max and are intended for those persons who install Martin® GravitySeal™ Self-Adjusting Skirting HD Max, commission them, and monitor their usage.

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

1.2 General information

The Martin® GravitySeal™ HD Max 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 and featuring a seal and clamp assembly that can be installed in spaces with low clearance to the belt.

The Martin® GravitySeal™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max to a minimum.

The Martin® GravitySeal™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirtings HD Max 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™ Self-Adjusting Skirting HD Max under deviating conditions and unauthorised modification of the Martin® GravitySeal™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max. Persons are considered qualified if they have the qualification of a skilled worker and meet all the following requirements:

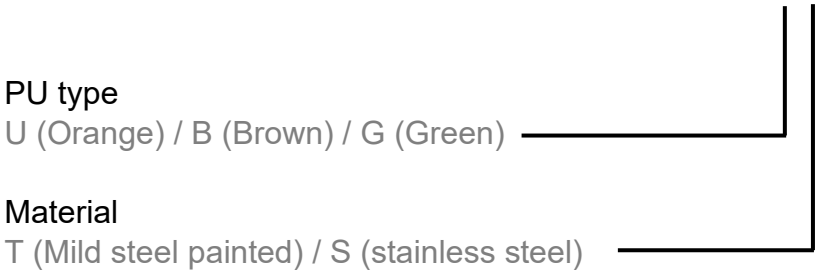
- completed professional training or at least 5 years of professional experience in the field,
- technical experience,
- knowledge of the relevant occupational health and safety regulations.

The persons must

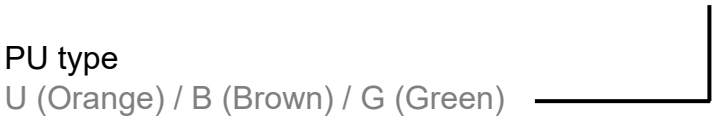
- be able to assess the tasks and risks assigned to them,
- be able to recognise potential dangers in advance,
- be physically and cognitively able to operate the conveyors and the Martin® GravitySeal™ Self-Adjusting Skirting HD Max safely,
- have been trained and instructed appropriately,
- have read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

1.5 Part numbers

Assembly **37911-GS4 X X**



48” Urethane Strip **37911- X FMHD**



1.6 Technical Data

	Operating parameter
Belt speed:	Max . 5,0 m/s
Temperature range:	-40 – 150 °C depending on PU type
Trough angle	0° to 45°
Reversing operation:	Yes
Belt Rollback	Yes

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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max may have weights that require handling by lifting devices. Handling Martin® GravitySeal™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max 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™ Self-Adjusting Skirting HD Max or close by must be kept in good condition and clearly visible at all times.

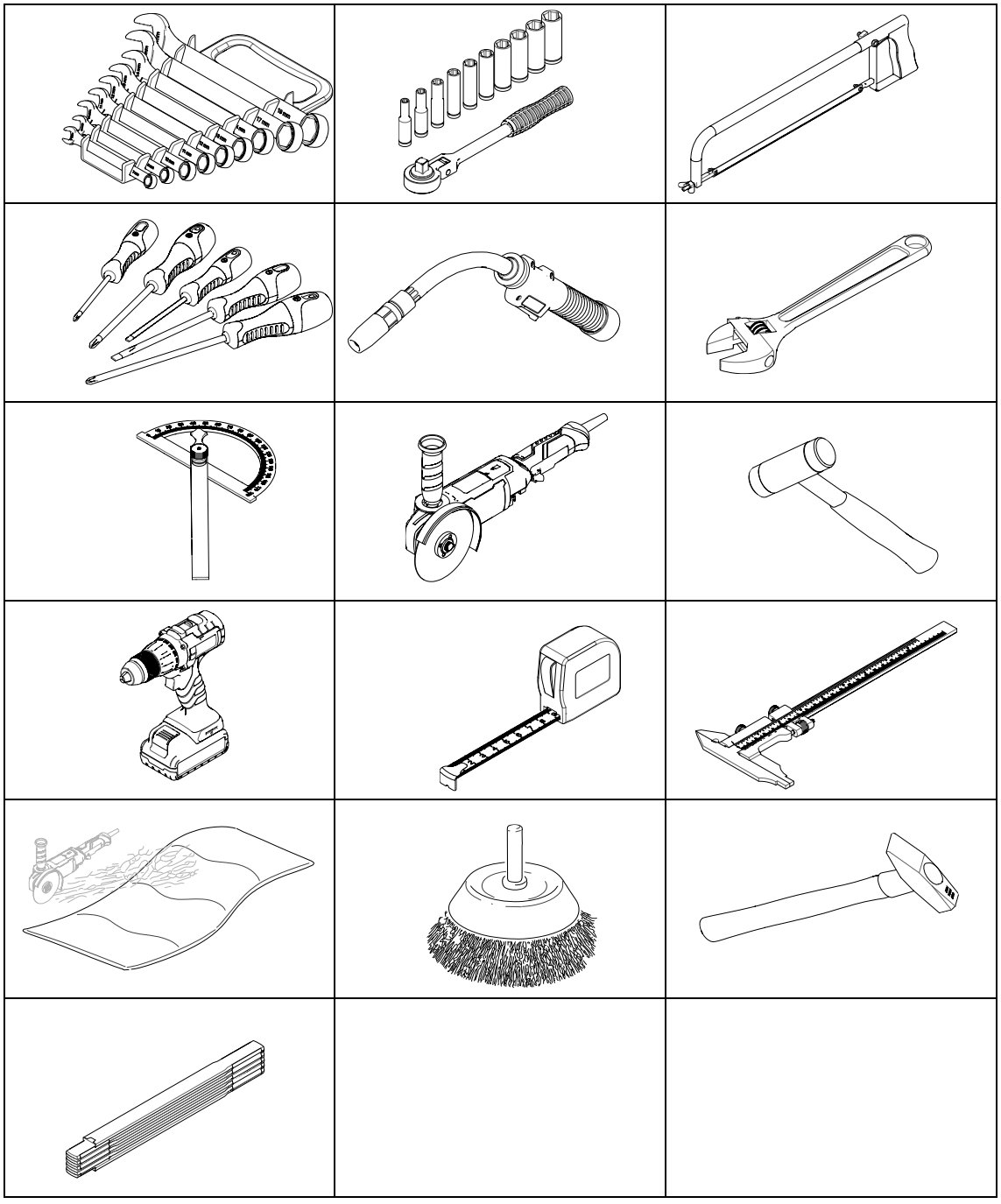
If parts of the system are replaced, ensure that the spare parts are or will be provided with appropriate safety markings.

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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- *Use suitable aids if the load is > 25 kg per person!*
- *Identify the centre of gravity! Ensure that the Martin® GravitySeal™ Self-Adjusting Skirting HD Max 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

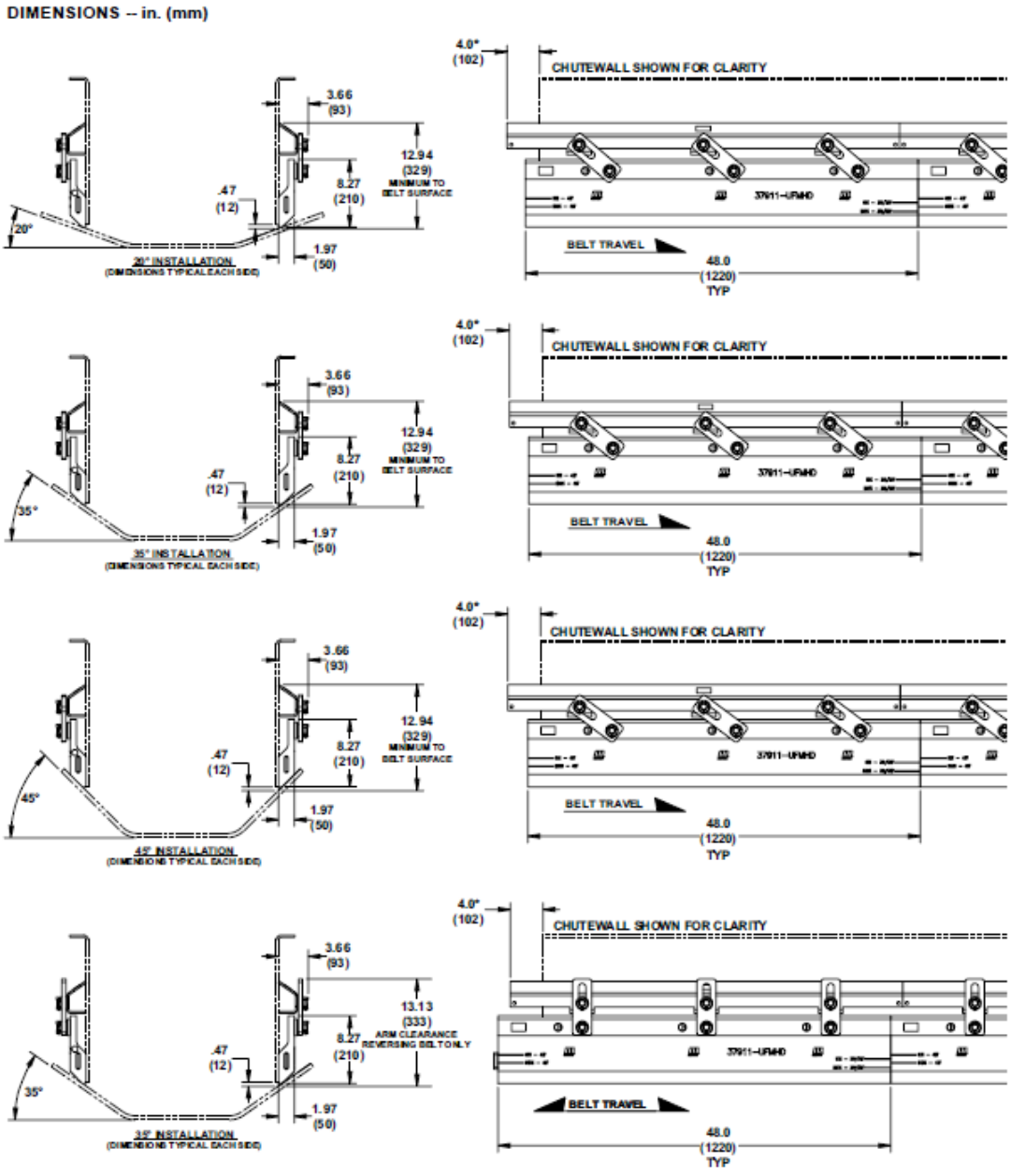
Flying objects

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 Space Required for Installation



*MARTIN® GRAVITYSEAL™ SELF-ADJUSTING SKIRTING HD MAX SHOULD BEGIN AT LEAST 4 INCHES (102 MM) BEFORE THE INLET SIDE OF THE CHUTE WALL.

4.1.2 Recommendations for Wear Liners

NOTE

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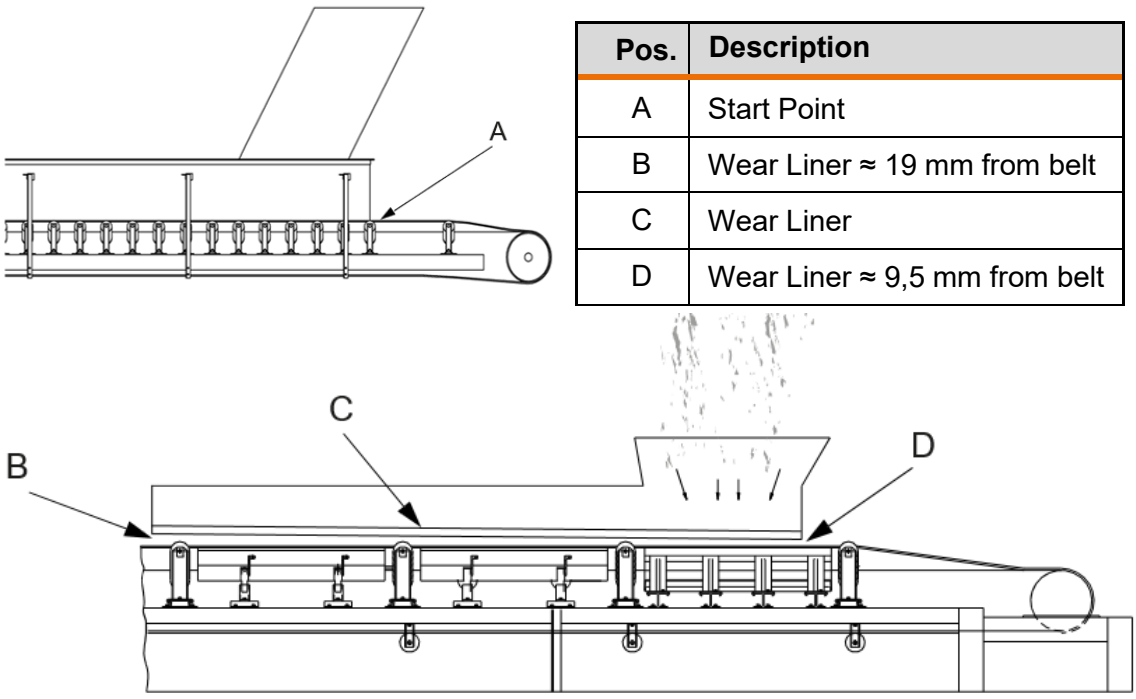
To protect the Martin® GravitySeal™ Self-Adjusting Skirting HD Max from the flow of bulk material, it is essential to install a wear liner that ensures the smallest possible gap to the belt surface. This reduces the amount of bulk material coming into contact with the Martin® GravitySeal™ Self-Adjusting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

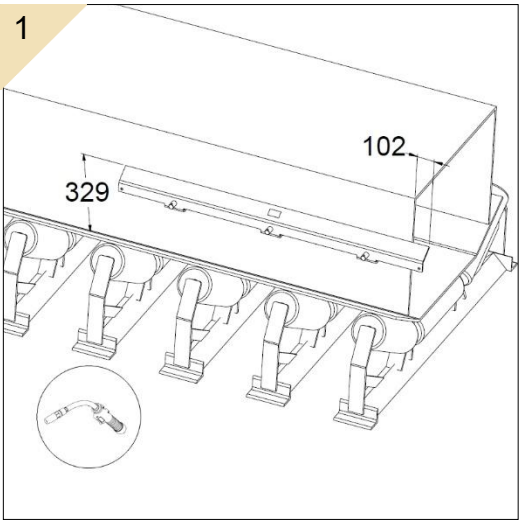


Pos.	Description
A	Start Point
B	Wear Liner ≈ 19 mm from belt
C	Wear Liner
D	Wear Liner ≈ 9,5 mm from belt

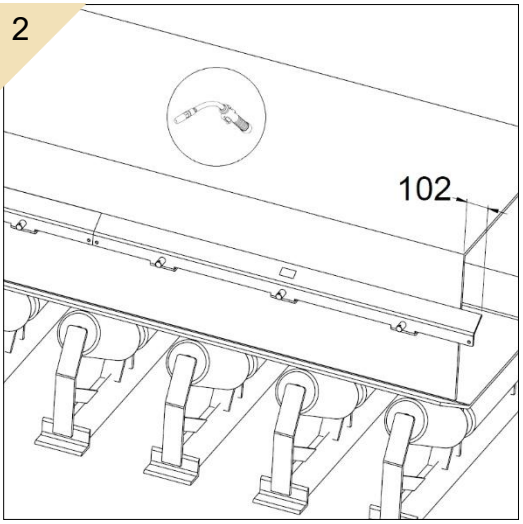
4.2 Mounting Martin® GravitySeal™ Self-Adjusting Skirting HD Max

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

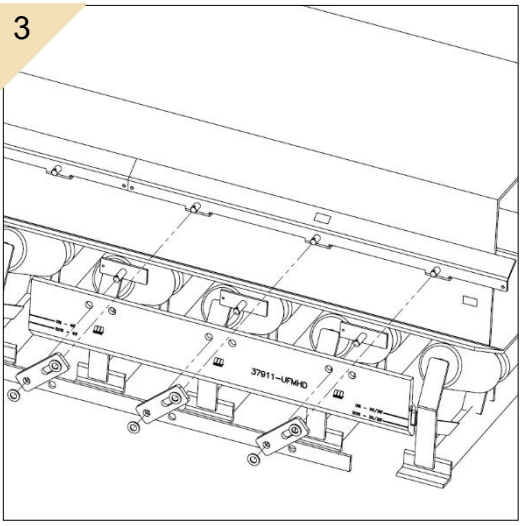
1



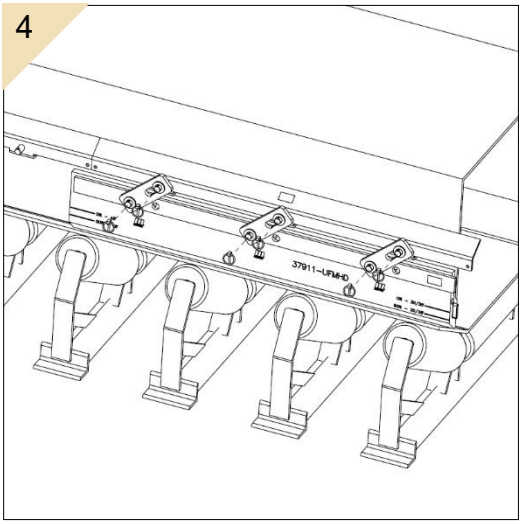
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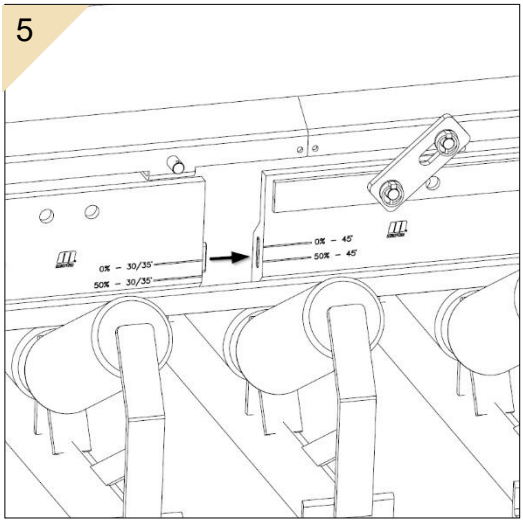
3



4



5



Note
The illustration shows the orientation of the sealing for a belt moving to the left.

The sealing is also suitable for reversible conveyors.

If the belt moves in the opposite direction (to the right in the illustration), the sealing's holding arms turn in the direction of belt travel.

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™ Self-Adjusting Skirting HD Max:



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



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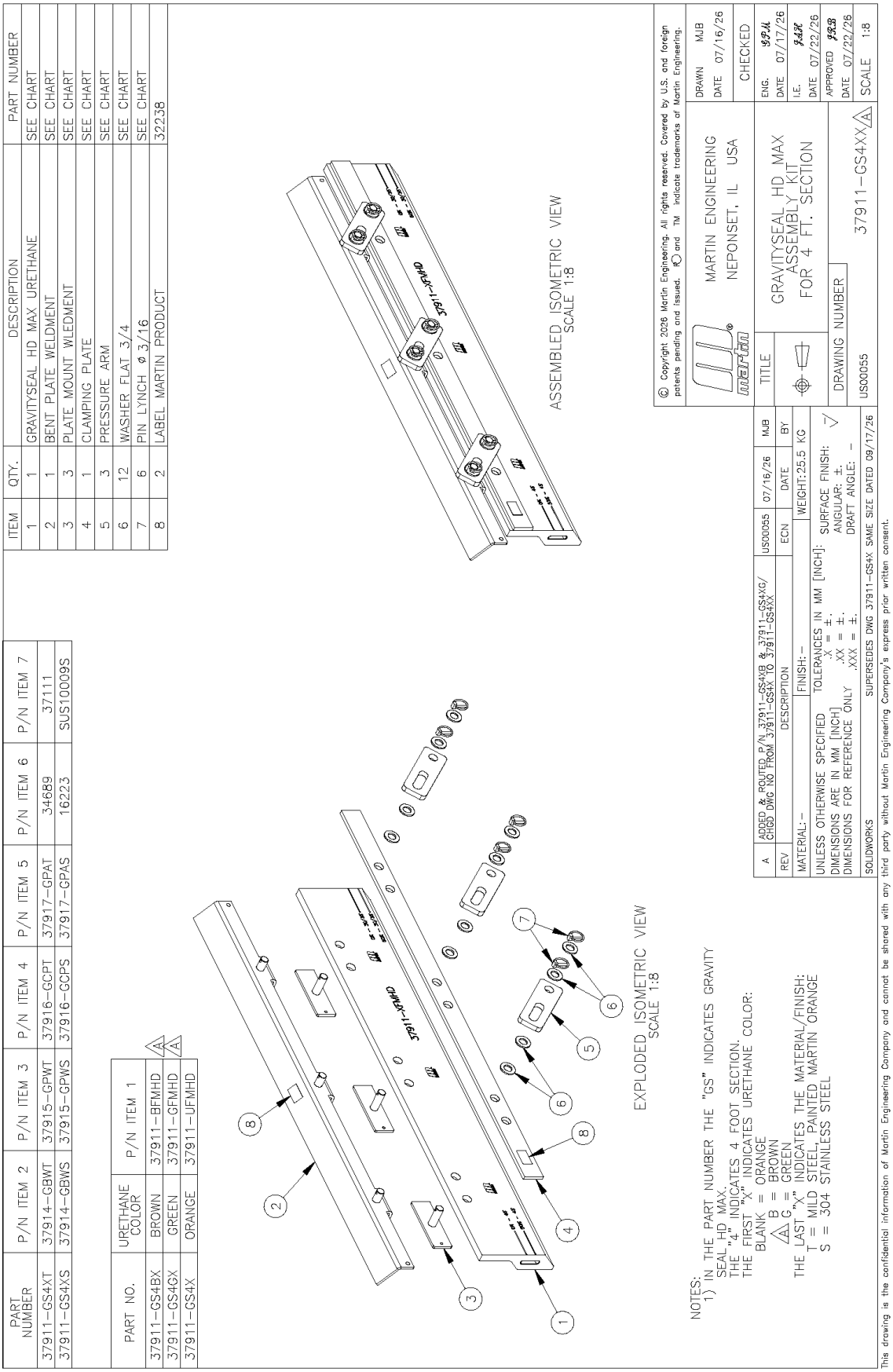
1. Disassemble Martin® GravitySeal™ Self-Adjusting Skirting HD Max by material groups as far as possible.
2. Contact official bodies (disposal centres, authorities) and request information about proper disposal or recycling possibilities.
3. Recycle the different materials.

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



PART NUMBER	P/N ITEM 2	P/N ITEM 3	P/N ITEM 4	P/N ITEM 5	P/N ITEM 6	P/N ITEM 7
37911-GS4XT	37914-GBWT	37915-GPWT	37916-GCPT	37917-GPAT	34689	37111
37911-GS4XS	37914-GBWS	37915-GPWS	37916-GCPS	37917-GPAS	16223	SUS10009S

PART NO.	URETHANE COLOR	P/N ITEM 1
37911-GS4BX	BROWN	37911-BFMHD
37911-GS4GX	GREEN	37911-GFMHD
37911-GS4X	ORANGE	37911-UFMHD

ITEM	QTY.	DESCRIPTION	PART NUMBER
1	1	GRAVITYSEAL HD MAX URETHANE	SEE CHART
2	1	BENT PLATE WELDMENT	SEE CHART
3	3	PLATE MOUNT WLEDMENT	SEE CHART
4	1	CLAMPING PLATE	SEE CHART
5	3	PRESSURE ARM	SEE CHART
6	12	WASHER FLAT 3/4	SEE CHART
7	6	PIN LYNCH Ø 3/16	SEE CHART
8	2	LABEL MARTIN PRODUCT	32238

NOTES:
1) IN THE PART NUMBER THE "GS" INDICATES GRAVITY SEAL HD MAX.
THE "4" INDICATES 4 FOOT SECTION.
THE FIRST "X" INDICATES URETHANE COLOR:
BLANK = ORANGE
B = BROWN
G = GREEN
THE LAST "X" INDICATES THE MATERIAL/FINISH:
T = MILD STEEL, PAINTED MARTIN ORANGE
S = 304 STAINLESS STEEL

EXPLODED ISOMETRIC VIEW
SCALE 1:8

ASSEMBLED ISOMETRIC VIEW
SCALE 1:8

REV	DESCRIPTION	ECN	DATE	BY
A	ADDED & ROUTED P/N 37911-GS4XB & 37911-GS4XG/ CHGD DWG NO FROM 37911-GS4X TO 37911-GS4XX	US00055	07/16/26	MJB

MATERIAL: –
FINISH: –
WEIGHT: 25.5 KG

UNLESS OTHERWISE SPECIFIED TOLERANCES IN MM [INCH]: SURFACE FINISH:
DIMENSIONS ARE IN MM [INCH] .X = ±. ANGULAR: ±
DIMENSIONS FOR REFERENCE ONLY .XX = ±. DRAFT ANGLE: –
.XXX = ±.

SOLIDWORKS SUPERSEDES DWG 37911-GS4X SAME SIZE DATED 09/17/26

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MARTIN ENGINEERING
NEPONSET, IL USA

TITLE
GRAVITYSEAL HD MAX
ASSEMBLY KIT
FOR 4 FT. SECTION

DRAWING NUMBER
US00055
37911-GS4XX

DRAWN	MJB	DATE 07/16/26
CHECKED		
ENG.		DATE 07/17/26
I.E.		DATE 07/22/26
APPROVED		DATE 07/22/26
SCALE	1:8	

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