

# ApronSeal<sup>TM</sup> Skirting



# **Operating Instructions**

Version: 0 Language: ENG M3248EUK-05/21



## **Table of Contents**

1	General	2
	1.1 About these operating instructions	2
	1.2 Intended usage	2
	1.3 Personnel qualification	3
	1.4 Part numbers	4
	1.5 Technical Data	4
2	Safety	5
	2.1 General safety instructions	5
	2.2 Personal protective equipment	7
	2.3 Safety markings on the system	7
3	Installation	8
	3.1 Required maximum of tools and materials	9
	3.2 Unpacking/transportation	. 10
	3.3 Determining the installation position	. 10
	3.4 Mounting the Impact Cradles	. 11
	3.5 Placing labels	12
4	Maintenance / Repair	. 13
5	Disassembly / Recycling / Disposal	. 14
6	Scope of delivery and spare parts	. 15



### 1 General



#### **NOTE**

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

ApronSeal<sup>TM</sup> Skirting Side Sealings are self-adjusting conveyor belt skirting systems that prevent spillage without requiring regular service to maintain an effective seal. It is a two stage sealing system consists of a primary and secondary sealing strip. The secondary sealing strip is in constant contact with the belt surface and provides an effective dust seal.

## 1.1 About these operating instructions

These operating instructions apply solely for ApronSseal<sup>TM</sup> Skirtings and are intended for those persons who install the sealings, commission them, and monitor their usage.

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

## 1.2 Intended usage

The side sealings are used on the fixed enclosures of the closed loading areas of belt conveyors. They are used to seal against the surface of smooth conveyor belts.

They may only be used

- in industrial areas above ground
- according to the technical data in the documentation
- in the installation position as described in the documentation



The usage of the ApronSeal<sup>TM</sup> Skirtings 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.

Operation of the side seals under deviating conditions and unauthorised modification of the side seals is considered as improper usage

Special product variants of the ApronSeal<sup>TM</sup> Skirting can also be used in ATEX zones 22 and 21 under certain circumstances.

### 1.3 Personnel qualification

Only authorised and qualified personnel may be entrusted with work with and on the ApronSeal<sup>TM</sup> Skirtings. 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 side seals safely,
- have been trained and instructed appropriately,
- have read and understood these operating instructions.

Work on earth connections (Protective Bonding Kits), cabling, switching, control, regulation, automation and all electrical components may be carried out only by trained electricians.



## 1.4 Part numbers

 ApronSeal<sup>TM</sup> Std:
 100724 and 100873

 ApronSeal<sup>TM</sup> HD:
 100723 and 100861

Std. Angle Clamp Weldment with Hardware 32049-H+E HD Angle Clamp Weldment with Hardware 34339-H+E

## 1.5 Technical Data

The ApronSeal<sup>TM</sup> Skirting are suitable for the following operating parameters:

	Operating parameter
Belt speed:	Max. 3,0 m/s (Std.) / 3,8 m/s (HD)
Temperature range:	-30 – 120°C
Trough Angle	0 – 45°
Reversing operation	Yes



## 2 Safety

### 2.1 General safety instructions



#### **DANGER**

#### **Entanglement in moving or rotating parts**

Body parts and/or clothing may get caught and pulled in by moving or rotating parts of the machinery.

- Before any installation or maintenance work is carried out, ensure that all
  power sources to the conveyor belt system and its accessories are switched
  off and secured against inadvertent switching on.
- Apply Log-Out / Tag-Out / Try-Out (LOTOTO) Procedures
- Apply warning signs



#### **DANGER**

#### **Automatic start-up of the conveyor**

Serious or fatal injuries due to unintentional start-up of the conveyor.

- Switch off the conveyor before starting work and secure it against being switched on again.
- Follow safe procedures to prevent unintentional restart.



#### **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

Side sealings are 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**

### Working in confined spaces

Areas in which side sealings 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

#### 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)!



#### **WARNING**

### **Heavy weight**

The ApronSeal<sup>™</sup> Skirting may have weights that require handling by lifting devices. Handling Impact Cradles by hand can cause serious skeletal injuries.

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



## 2.2 Personal protective equipment

Persons carrying out work on side sealings 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 ApronSeal<sup>TM</sup> Skirting 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 Installation



#### **DANGER**

#### **Entanglement in moving or rotating parts**

Body parts and/or clothing may get caught and pulled in by moving or rotating parts of the machinery.

- Before any installation or maintenance work is carried out, ensure that all
  power sources to the conveyor belt system and its accessories are switched
  off and secured against inadvertent switching on.
- Apply Log-Out / Tag-Out / Try-Out (LOTOTO) Procedures
- Apply warning signs



#### **DANGER**

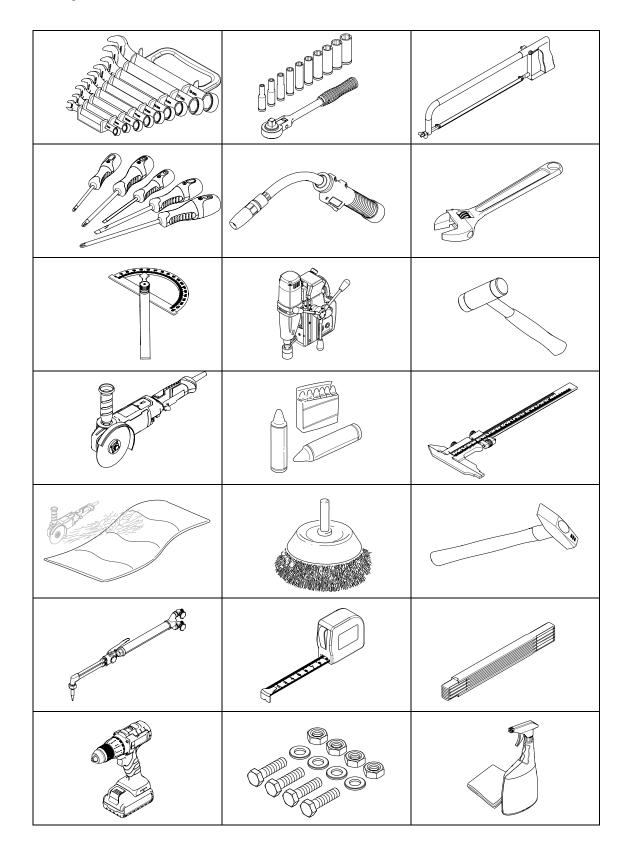
### Automatic start-up of the conveyor

Serious or fatal injuries due to unintentional start-up of the conveyor.

- Switch off the conveyor before starting work and secure it against being switched on again.
- Follow safe procedures to prevent unintentional restart.



## 3.1 Required maximum of tools and materials

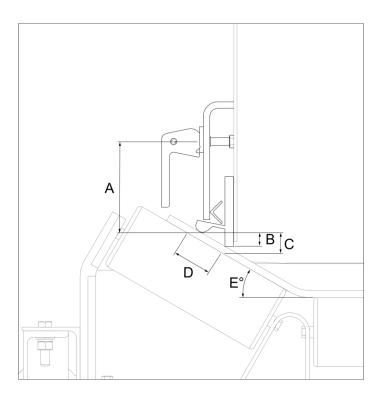




## 3.2 Unpacking/transportation

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

## 3.3 Determining the installation position

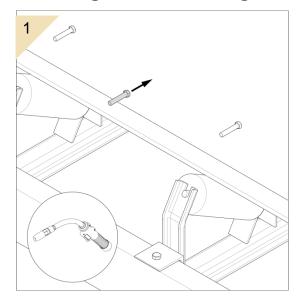


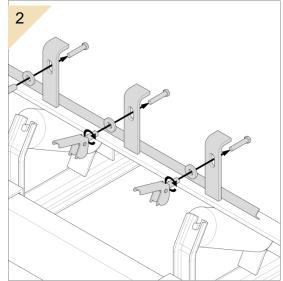
	STD	HD	STD	HD	STD	HD	STD	HD
Α	133	168	133	168	133	168	133	n/a
В	10-19	10-19	10-19	10-19	10-19	10-19	10-19	n/a
С	19	19	19	19	19	19	19	n/a
D	53	83	65	99	72	108	75	n/a
Е	0°		20°		35°		45°	

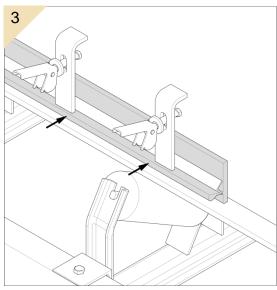
<sup>\*</sup>Dimension in mm

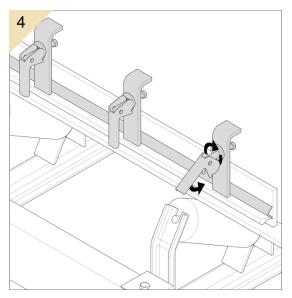


## 3.4 Mounting the Side Sealings









## Notice

The illustrations show the variant of the clamps with quick-release fasteners. The same applies to the clamps with simple screw connections (bolts instead of clamps).



## 3.5 Placing labels

#### 3.5.1 Safety label

The safety label (safety marking) below must be attached to the conveyor system in the immediate vicinity of the Side Sealing:



#### 3.5.2 Other labels

The labels below are attached to the product:

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



## 4 Maintenance / Repair



#### **DANGER**

#### **Entanglement in moving or rotating parts**

Body parts and/or clothing may get caught and pulled in by moving or rotating parts of the machinery.

- Before any installation or maintenance work is carried out, ensure that all
  power sources to the conveyor belt system and its accessories are switched
  off and secured against inadvertent switching on.
- Apply Log-Out / Tag-Out / Try-Out (LOTOTO) Procedures
- Apply warning signs



#### **DANGER**

#### Automatic start-up of the conveyor

Serious or fatal injuries due to unintentional start-up of the conveyor.

- Switch off the conveyor before starting work and secure it against being switched on again.
- Follow safe procedures to prevent unintentional restart.

Interval	Task					
Weekly	Check that all securing parts are tightened. Tighten any loose connections as required.					
vveekiy	Clean all warning labels. Replace any warning labels which are illegible.					
	Check seals for wear. Replace if necessary.					
Monthly	Make sure clamps and bolts are tight.					
	Make sure primary seal section is resting on conveyor belt and does not move.					



## 5 Disassembly / Recycling / Disposal

- 1. Disassemble Side sealings 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.

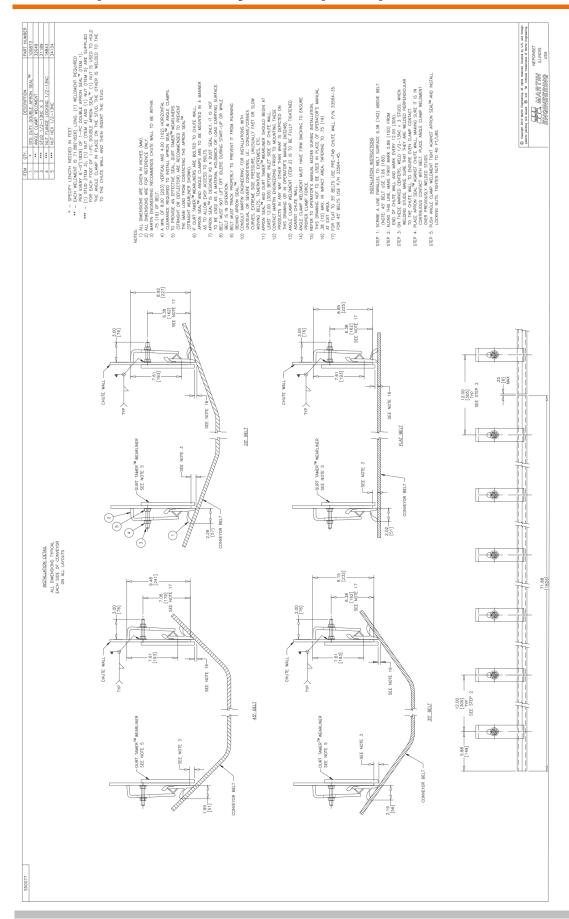
Only materials that cannot be reasonably recycled may be disposed of. Disposal must be carried out professionally.

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

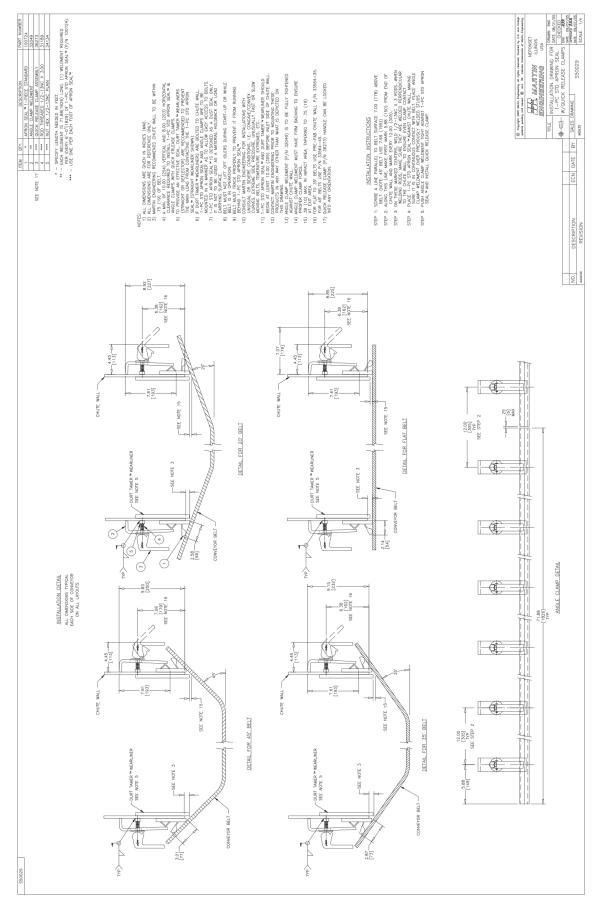
- Sheet steel
- Steel profiles
- Plastics
- Rubber
- Non-ferrous metals
- Electrical cables
- Electrical components (with copper content)
- Lubricants



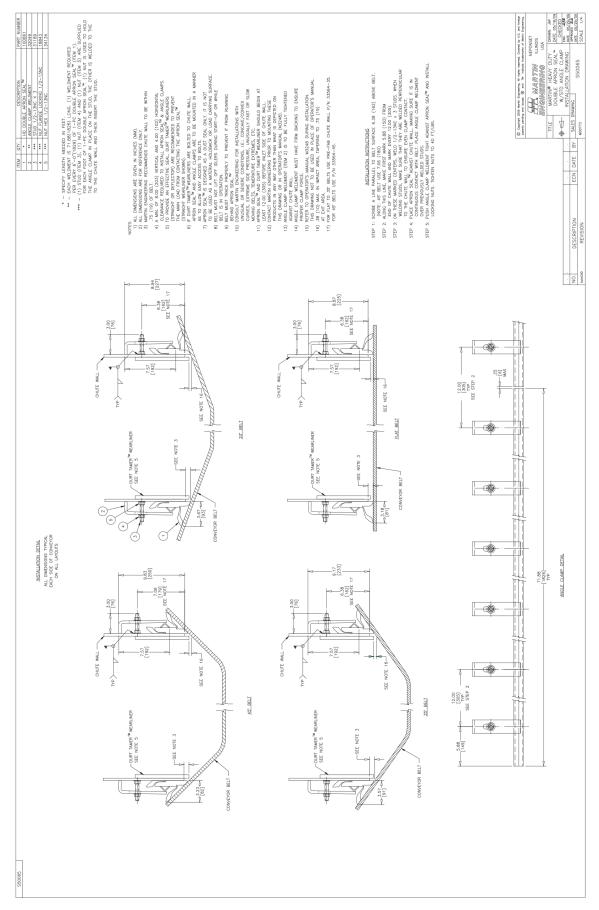
## 6 Scope of delivery and spare parts



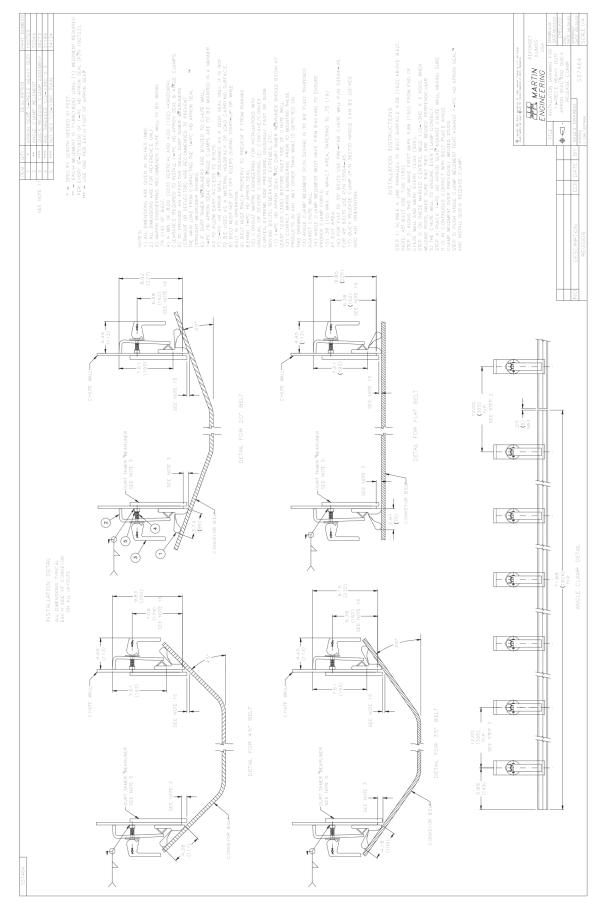














#### Germany

Martin Engineering GmbH In der Rehbach 14, 65396 Walluf, Germany Tel. +49 (0)6123 97820; Fax +49 (0)6123 75533 info@martin-eng.de; www.martin-eng.de

#### **Great Britain**

Martin Engineering Ltd. 8, Experian Way, NG2 Business Park, Nottingham NG2 1EP, Nottinghamshire, Great Britain Tel +44 115 946 4746; Fax +44 115 946 5550 info@martin-eng.co.uk; www.martin-eng.co.uk

#### **France**

Martin Engineering SARL 50 Avenue d'Alsace, 68025 Colmar Cedex, France Tel +33 389 20 63204; Fax +33 389 20 4379 info@martin-eng.fr; www.martin-eng.fr

#### Russia

OOO Martin Engineering
UI. Bolshaya Dmitrovka, 23/1
125009 Moscow, Russia
Tel +7 495 181 33 43; Fax +7 499 720 62 12
info@martin-eng.ru; www.martin-eng.ru

#### **Spain**

Martin Engineering Spain c/Balmes 297 1er 2a, 08006 Barcelona, Spain Tel. +34 (0)876 245114; Fax +34 (0)966 719371 info@martin-eng.es; www.martin-eng.es

#### Turkey

Martin Engineering Türkiye Yukarı Dudullu İmes Sanayi Sitesi, B Blok 205 Sokak No.6 34775 Ümraniye Istanbul, Turkey Tel +90 216 499 34 91; Fax +90 216 499 34 90 info@martin-eng.com.tr; www.martin-eng.com.tr

#### Italy

Martin Engineering Italy Srl Via Buonarroti, 43/A, 20064 Gorgonzola (MI), Italy Tel +39 295 3838 51; Fax +39 295 3838 15 info@martin-eng.it; www.martin-eng.it