



# MARTIN® PIT VIPER™ Pre-Cleaner



Installation instructions  
M3735UK



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## 2 Introduction

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### 2.1 About these installation instructions

Non-compliance with these installation instructions can result in loss of compensation for damage and/or warranty claims.

#### 2.1.1 Scope

These installation instructions apply solely for the product described herein and are intended for those persons who install this product, commission it, and monitor its usage.

#### 2.1.2 Copyright

The products described and these installation instructions are protected by copyright. Any reproduction without a license will be prosecuted. All rights to the present document are reserved, including its reproduction and/or copying in any conceivable manner. Reprints of this document require the written consent of Martin Engineering.

The technical standard at the time of delivery of the product and its technical documentation is decisive for as long as no other information is provided. The product and documentation are subject to technical changes without prior notification. Earlier documents then lose their validity. Martin Engineering's General Terms of Sales and Delivery shall apply.

#### 2.1.3 Exclusion of liability

Martin Engineering guarantees the flawless function of its product in accordance with its advertising, the published product information, and its technical documentation. Martin Engineering shall assume no liability for efficiency and flawless function if the product is used for a purpose other than that described in the "Intended Use" section or for damage resulting from the use of accessories and/or spare parts which were not supplied and/or certified by Martin Engineering.

The Martin Engineering products are designed for a long service life. They conform to the state of the art in science and technology and were thoroughly inspected before shipment. In addition to this, Martin Engineering constantly performs product and market research for continuous product development.

Martin Engineering offers competent support whenever malfunctions and/or technical problems occur. Suitable actions are taken immediately. The warranty provisions of Martin Engineering apply and can be sent to you as needed.

## 2.1.4

### Reference to additional documents

Reference is made in these installation instructions to the following documents:

- Installation instructions for the MARTIN® Inspection door, Publication no. M3127.
- Installation manual for MARTIN® TWIST™ Tensioner: Publication no. M3296.
- Installation manual for MARTIN® Cable Tensioner: Publication no. M3734.

The following standards and directives were complied with in the preparation of these installation instructions:

- EU Machinery Directive (2006/42/EC)
- ISO/IEC Guide 37 "Installation instructions for products used by final consumers", 1995 Edition
- DIN 1421 "Organisation and numbering in texts", Edition 1983-01
- DIN/EN 12100 "Machine safety - basic definitions, general design guidelines", Edition 2013-08
- DIN/ISO 16016 "Technical product documentation - Protection notices for restricting the use of documents and products", Edition 2007-12
- DIN/EN 60204-1 "Safety of machines - Electrical Equipment of Machines, Part 1 General requirements", Edition 2007-06
- DIN EN 82079-1 - Creation of user manuals - Structuring, content and presentation, Part 1 General principles and detailed requirements.

## 2.1.5

## Classification of the hazards

**DANGER!**

Represents an immediately threatening danger which leads to serious bodily injuries or death if not avoided.

**WARNING!**

Represents a possibly hazardous situation which could lead to serious bodily injuries or death if not avoided.

**CAUTION!**

Represents a possibly hazardous situation which could lead to minor bodily injuries and/or property damage if not avoided.

**NOTE**

Contains comments about the installation and/or the product's usage to point out situations which cause neither personal injury nor property damage but include important information.

## 2.2

### **Intended usage**

The MARTIN® PIT VIPER™ belt cleaner is used to clean conveyor belt by scrapping off clinging materials. The cleaner can be installed on conveyors with belt widths up to 2400 (3000) mm and a belt speed of up to 5 m/s.

Every other usage of this product is deemed misuse. Please contact Martin Engineering customer service if you would like to use this product for a different purpose. We will be happy to assist you with the product configuration.

### 2.2.1

#### **Conveyor systems with open transfer systems**

These installation instructions describe the installation on conveyor systems with encapsulated transfer systems. Various MARTIN® Inline mount plates can be used on open transfer systems.

Martin Engineering or one of its representatives can assist with the position or with special solutions in cases where the installation conditions are complicated such as insurmountable static components or a head pulley as the tensioning station.

### 2.2.2

#### **Usage in explosion-protected areas**

This product can also be used in potentially explosive areas under certain conditions. Contact Martin Engineering for more information on usage in potentially explosive areas.

### 2.2.3

#### **Restrictions on the use of the product**

The product specified here may only be used within the scope of the specifications referred to above. Usage in a higher equipment protection category or under other operating conditions than those specified by Martin Engineering shall be deemed misuse and is only permitted if approved by Martin Engineering.



## 2.3

## Occupational safety

### 2.3.1

### Safety information, occupational safety

These installation instructions must be read through in their entirety before work may be started on the product or on the conveyor system supplied by the customer.

The owner-operator must ensure that all installation, inspection and maintenance work is performed solely by trained specialists.

Work on conveyor systems and their accessories must always be performed during shut-down. The procedures described in the applicable installation instructions for shutting down the conveyor system must always be complied with.

All of the safety devices and safeguards must be reattached and/or made operational again immediately following completion of the work.

The installation must be carried out to completion before the system is started up. The flawless execution of all operating steps must be tested before the conveyor system can be started up again. Please observe all information on the installation and start-up of the product.

## 2.3.2

### **Duties of the owner-operator**

This product's owner-operator must ensure that this product is installed, serviced and used solely by those persons who

- know the rules regarding occupational safety and accident prevention,
- were trained on using this product and have read and understood these installation instructions.

## 2.3.3

### **Authorised personnel**

Personnel are considered authorised when they have suitable training and technical experience, can demonstrate knowledge of the applicable standards and guidelines, and are able to evaluate tasks in order to recognise critical situations at an early stage.

### **Operating, maintenance and installation personnel**

Personnel are considered authorised when they have been trained on using the product and have read and understood these operating instructions in their entirety.

## 3 Description of the product

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### 3.1 Design and function

Der MARTIN® PIT VIPER™ Pre-Cleaner was specially developed to simplify blade replacement and to reduce costs. It makes it possible to quickly and easily replace the blade without any tools by removing a single pin.

Although pre-cleaners and secondary cleaners can each be used individually, the installation of a system consisting of pre-cleaners and secondary cleaners is recommended for an optimal cleaning result.



#### NOTE

An unfavourably or improperly installed product can disrupt the conveyor process or contaminate the bulk material to be transported.

The owner-operator is responsible for taking the required counter-measures.

In the case of applications with contaminants, Martin Engineering or one of its representatives can assist with the positioning or with special solutions.

### 3.2 Tensioners

The cleaner and its specially developed Martin Engineering Inline Reversing tensioners offer the best possible results and correspond to the general state of the art.

The cleaner can be operated solely with the tensioners listed below:

- MARTIN® TWIST™ Tensioner:  
Part number 31443-I+E.
- MARTIN® Cable Tensioner:  
Part number 37944.

## 3.3

### Type clarification

Blades for the MARTIN® PIT VIPER™ Pre-Cleaner are available in various material designs. The required material can be selected in accordance with the material conditions. The selection of the various blades is listed in section 9 - "Part numbers".

## 4 Preparing for the installation

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### 4.1 Before the installation

#### 4.1.1 Required materials and tools

Along with the standard tools, the following special equipment may be needed for the installation and maintenance of your product.

- Lifting device with a capacity greater than the weight of the belt cleaner (see delivery note for weight data).

#### 4.1.2 Preparatory measures



##### NOTE

Perform the inspections described carefully and completely. The shipping company is liable for any transport damage! Please contact the shipper with any damage claims.

1. Inspect the delivery for the following conditions:
  - Is the delivery complete? Does the number of pallets/ crates/containers delivered match the number on the delivery note?
  - Do all of the transport packages appear to be undamaged? Does damage to the packaging exist which indicates damage to the product contained inside?

2. Always record any incompleteness or transport damage discovered in the delivery and have it confirmed by the shipper. All damaged products must be kept for inspection.
3. The delivery should include the following parts, depending on the scope of the order:
  - MARTIN® PIT VIPER™ Pre-Cleaner,
  - possible accessories as contained in the order,
  - two Conveyor Products Warning Labels Part No. 23395.
4. Report any missing or damaged parts to Martin Engineering or one of its authorised dealers.

## 5

## Installation

## 5.1

## Safety information

**NOTE**

The item numbers in the pictures correspond to the numbering in the parts list in Section 9.

**WARNING! RISK OF INJURY!**

Body parts and/or clothing may get caught and pulled in by rotating parts or by the moving conveyor belt.  
*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 reactivation. Use warning signs!*

**WARNING! RISK OF EXPLOSION!**

Increased risk when using a cutting torch or welding device in closed rooms!  
*Check the gas and dust content of the air before usage.*

**NOTE**

The chute wall on which the In-line-Reversing tensioner is to be installed is designated as the “operator side”. The other chute wall is referred to as the “far side”.  
 When dual In-line-Reversing tensioners are installed, the easiest side to access is the “operator side”.

**WARNING! RISK OF INJURY!**

The pre-cleaner is heavy and can cause serious injuries if it is dropped during lifting or moving.  
*Always use a suitable lifting device or engage the help of several persons when lifting the pre-cleaner. Do not stand under hanging loads.*

5.2

Installation process

No.	Installation step	Instructions
1	Positioning the pre-cleaner mainframe	M3735
2	Installing the tensioner	M3734 or M3296
3	Installing the pre-cleaner	M3735
4	Installing the blade	M3735
5	Tightening the pre-cleaner	M3734 or M3296

Tab. 1: Installation steps

Various on-site conditions requiring different work steps are possible for the installation. These are presented as follows:

Installation on an encapsulated transfer system

- Follow the instructions given in Section 5.2.2.

Installation on an encapsulated transfer system with pre-existing installation openings and air line brackets for belt cleaners.

- Follow the instructions given in Section 5.2.3.

Installation on an open transfer system

Use the equipment provided at the site to comply with the dimensions for correct installation.



### 5.2.1

### Determination of the installation position.



#### NOTE

The pre-cleaner is installed exclusively in the lower front quarter of a head pulley. Always comply with the specified installation dimensions.

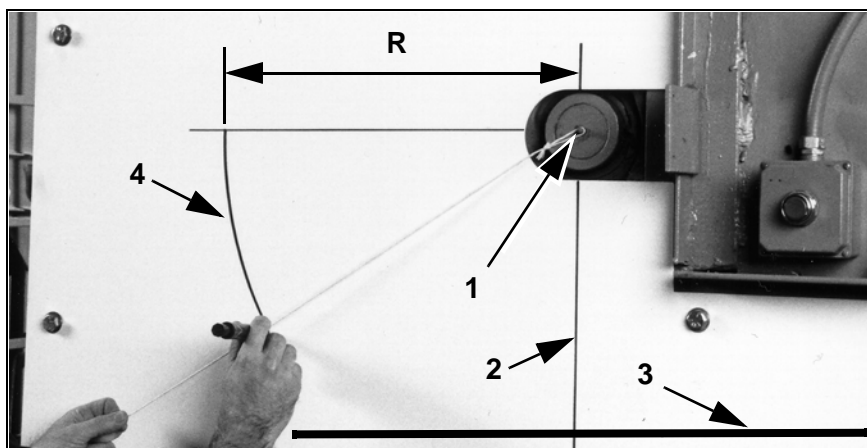


Fig. 1

1. Determine the centre point of the head pulley (1, Fig. 1) on the operator side.
2. Drop a perpendicular (2, Fig.1) to the lower conveyor belt level (3, Fig.1).
3. Determine radius R.



#### NOTE

Radius R results from the sum of: pulley radius, coating thickness, belt thickness and a constant value between (70-76 mm). This value is freely selectable. The selected value must also be used for the far side.

4. Draw the arc of a circle (4, Fig. 1) with radius R.

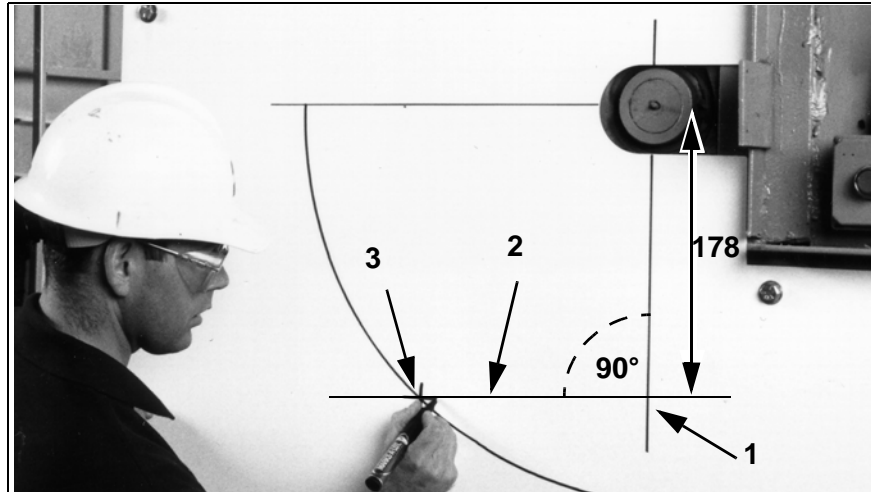


Fig. 2

5. Mark a point on the perpendicular which is at least 178 mm from the centre (1, Fig. 2).
6. Draw a line vertical to the perpendicular at this point (2, Fig. 2).
7. The point of intersection (3, Fig. 2) with the arc of the circle is the installation position of the pre-cleaner.
8. Repeat steps 1 to 7 on the far side of the chute wall.

## 5.2.2

### Installing the tensioner

See the installation manual accompanying your Inline Reversing tensioner for specific instructions on how to install it (Section 2.1.4).

### 5.2.3

### Installing the pre-cleaner



#### NOTE

It is not really necessary to remove the blade.  
Please follow the guidelines for ergonomics at the workplace.

1. Remove the transport bolts.
2. Insert the hollow clamping pin (4, Fig.8).

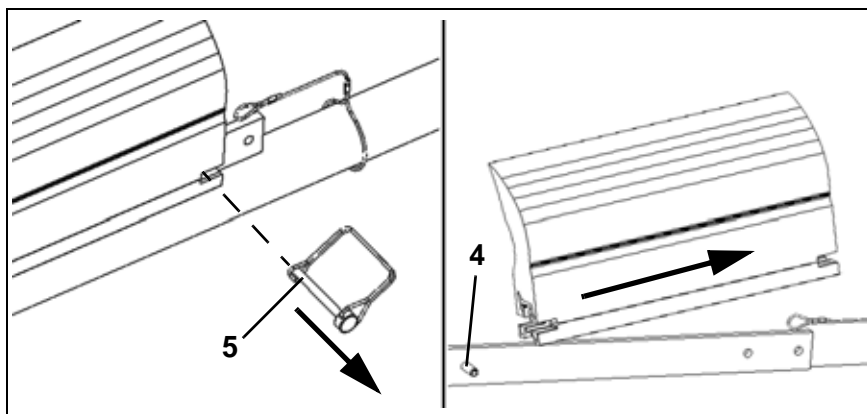


Fig. 3

3. Open the retaining clip.
4. Remove the pin hitch (5, Fig. 3).
5. Remove the blade from the mainframe.
6. Follow the corresponding instructions for your specific tensioner for installing the mainframe.

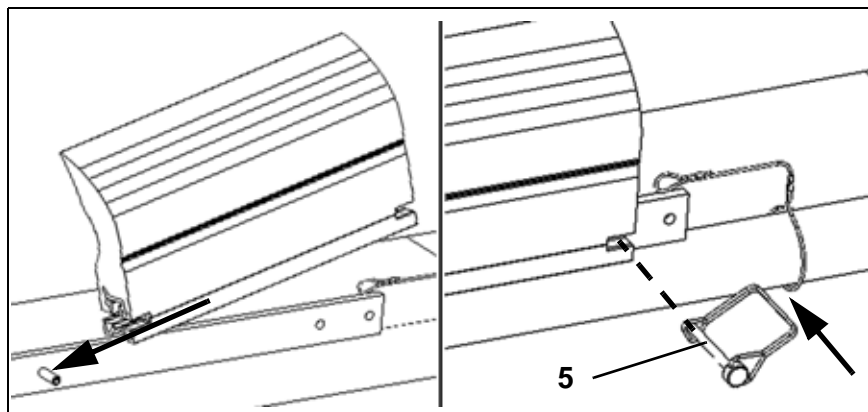


Fig. 4

7. Place the blade onto the mainframe and insert it into the wooden dowel pin.



## NOTE

Position the blade in a way that its tip points in the opposite direction of the conveyor belt.

8. Insert the pin hitch (5, Fig. 4).
9. Tighten the retaining clip.

## 5.2.4

### Centring the blade

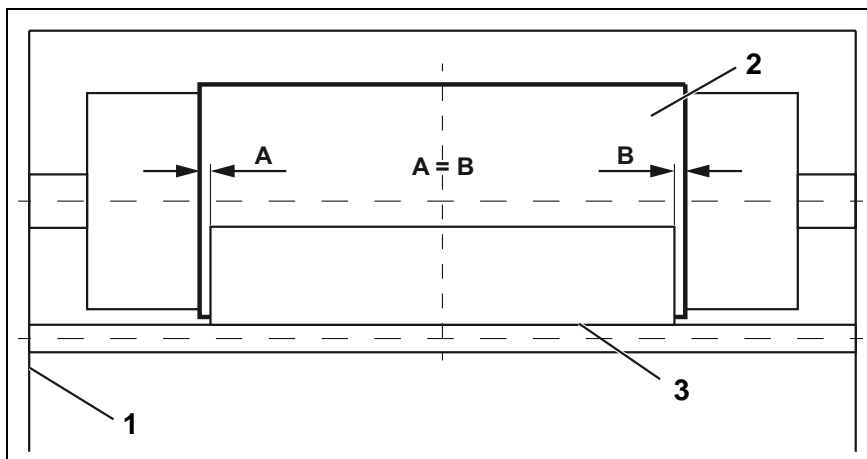


Fig. 5

Pos.	Description
1	Chute wall
2	Head pulley
3	Blades

Tab. 2: Centring the mainframe

## 5.2.5

### Aligning the mainframe in parallel to the head pulley

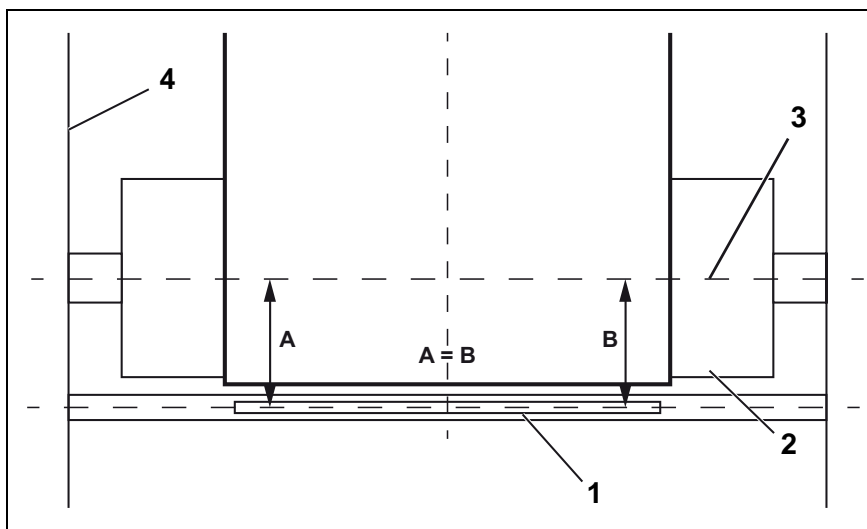


Fig. 6

Pos.	Description
1	Top view of the blades
2	Head pulley
3	Head pulley frame
4	Chute wall

Tab. 3: Aligning the mainframe in parallel to the head pulley

5.2.6

Aligning the mainframe in parallel to the head pulley frame

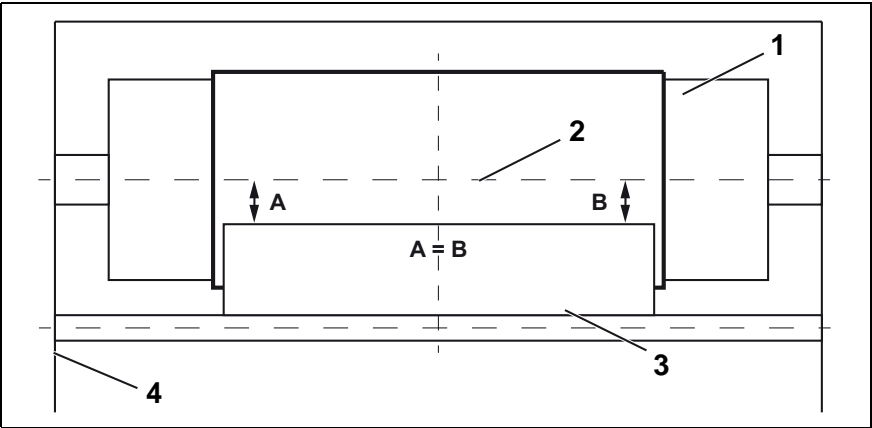


Fig. 7

Pos.	Description
1	Head pulley
2	Head pulley frame
3	Blades
4	Chute wall

Tab. 4: Aligning the mainframe horizontally

5.2.7

Tightening the pre-cleaner



**CAUTION! RISK OF DAMAGE!**

Excess or uneven tightening of the belt cleaner on the conveyor belt can cause material damage.

*Always tighten the belt cleaners in accordance with the specification and also ensure uniform tightening whenever dual Inline-Reversing tensioners are used.*

See the installation manual accompanying your Inline Reversing tensioner for specific instructions on how to configure it (Section 2.1.4).

### 5.3

### Operation with loading



#### CAUTION! FLYING OBJECTS!

Forgotten tools or installation parts can fall off of the running conveyor belt and cause minor injuries and property damage. *Always remove any tools from the installation site and conveyor belt upon completion of the installation work before switching on the power supply.*



#### WARNING! RISK OF INJURY!

Body parts and/or clothing may get caught and pulled in by rotating parts or by the moving conveyor belt. *Shut off the power supply to the conveyor system and its accessories and secure it against unauthorised reactivation before performing any installation or maintenance work. Use warning signs!*

1. Remove all tools and fire protection covers from the installation site and the conveyor belt.
2. Operate the conveyor system for one hour under load.



#### CAUTION! RISK OF DAMAGE!

Never operate the fully tensed belt cleaner for longer than 15 minutes on the running unloaded conveyor belt. A risk of damage due to overheating exists for the belt cleaner and/or the conveyor belt. *Only operate the fully tensed belt cleaner on the running and fully loaded conveyor belt.*

3. Shut off the conveyor belt system after the one-hour operation under load, shut off the power supply and secure it against unauthorised reactivation.
4. Check whether all of the fastening points are securely tightened. Tighten any loose connections.

5. Inspect the belt cleaner for the following conditions:
  - Wear: minor break-in wear is normal. This stops as soon as the blades have adjusted to the shape of the conveyor belt.
  - Bulk material accumulation: No bulk materials must accumulate between the blades and return side.
6. Note the corresponding information in Section 7 "Troubleshooting" in cases of excess wear, bulk material accumulation or other problems.



## 5.4

### Placement of the warning labels and warning trailers

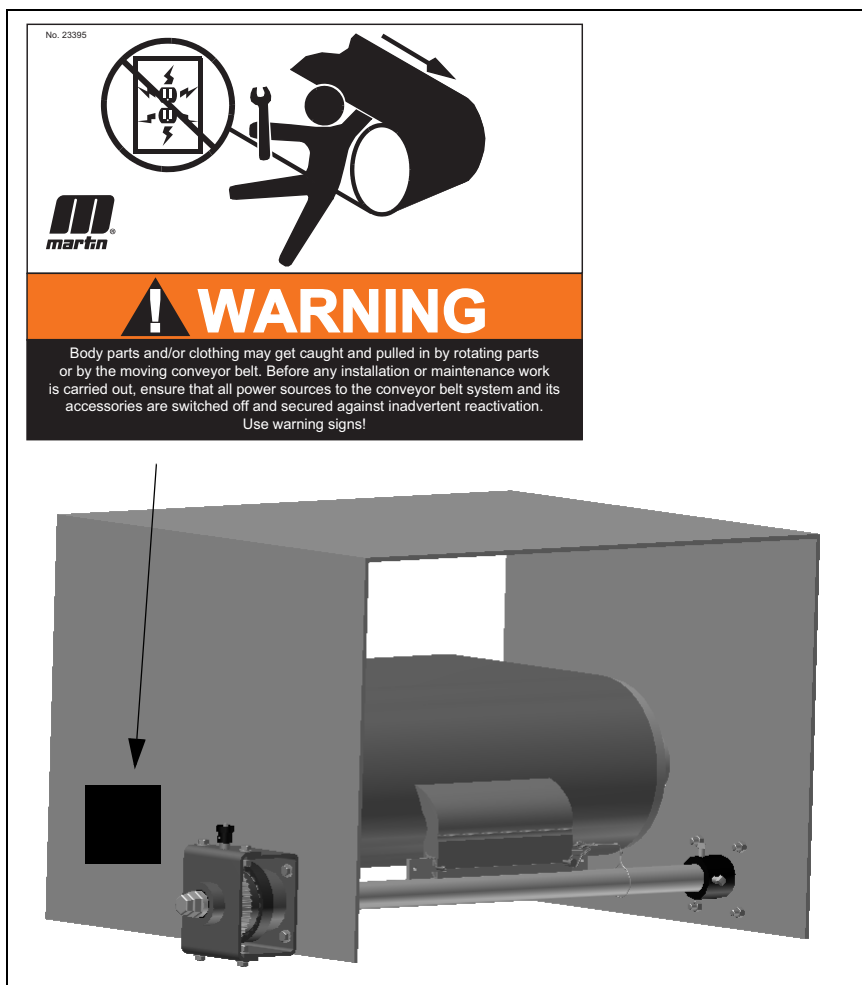


Fig. 8

## 6

## Maintenance

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### 6.1

#### Safety information



#### NOTE

Maintenance inspections must be performed at least once a week. Shorter maintenance intervals may be required depending on the operating conditions.



#### WARNING! RISK OF INJURY!

Body parts and/or clothing may get caught and pulled in by rotating parts or by the moving conveyor belt.  
*Shut off the power supply to the conveyor system and its accessories and secure it against unauthorised reactivation before performing any maintenance work.*  
*Use warning signs!*

### 6.2

#### Weekly maintenance

1. Shut off the power supplies of the conveyor belt and any additional equipment and secure them against unauthorised reactivation.
2. Remove all material deposits from the blade and the mainframe.
3. Inspect whether all of the fastening points are securely tightened. Tighten any loose connections.
4. Check the cleaner tension and re-tighten if necessary.
5. Check the blades for wear, damage and missing parts.



## NOTE

Take the corresponding parts out of service if any indications of functional disturbances are noticed. Contact Martin Engineering or one of its representatives for support. Do NOT start up the conveyor system until the cause of the problems has been recognised and eliminated.



## CAUTION! RISK OF DAMAGE!

Blades must not be worn out beyond the wear line; this can cause serious material damage.

*Inspect the blades regularly and replace them in a timely manner!*

6. Follow the instructions in Section 6.3 to replace any worn out blades.
7. Clean all the warning labels. Replace illegible warning labels immediately. Warning labels can be purchased from Martin Engineering or a contracted dealer.



## CAUTION! FLYING OBJECTS!

Forgotten tools or installation parts can fall off of the running conveyor belt and cause minor injuries and property damage.

*Always remove any tools from the installation site and conveyor belt upon completion of the installation work before switching on the power supply.*

8. Remove all tools from the working area.
9. Switch on the conveyor system.



## **WARNING! RISK OF INJURY!**

Body parts and/or clothing may get caught and pulled in by rotating parts or by the moving conveyor belt.  
*Do not touch or reach into the conveyor system or its accessories during operation.*



## **CAUTION! RISK OF DAMAGE!**

Never operate the belt cleaner for longer than 15 minutes on the running unloaded conveyor belt. A risk of damage due to overheating exists for the belt cleaner and/or the conveyor belt.  
*Never operate the belt cleaner unless the conveyor belt is running.*

10. Observe the cleaner and check its cleaning performance.

## 6.3

## Replacing the blades

1. Slacken the Inline-Reversing tensioners as specified in the corresponding installation instructions.

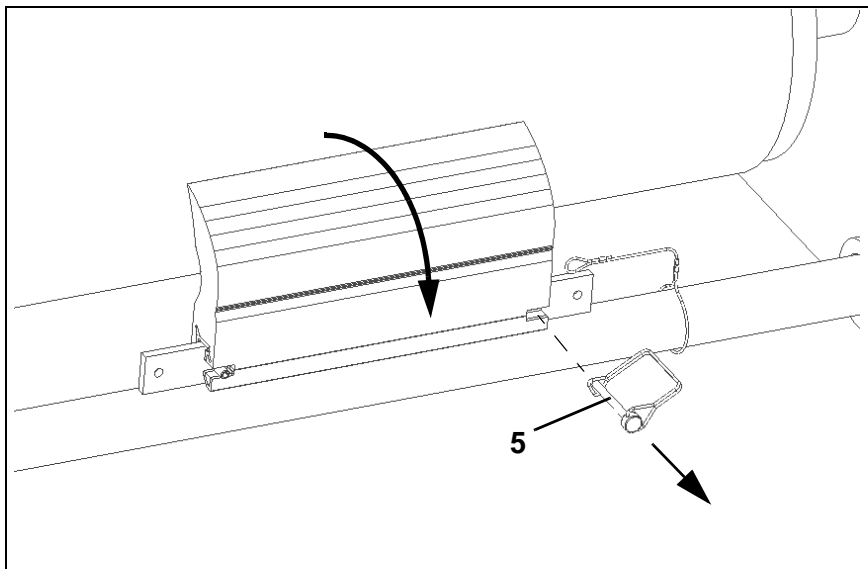


Fig. 9

2. Fold the cleaner down from the head pulley
3. Open the retaining clip.
4. Remove the pin hitch (5, Fig. 9).

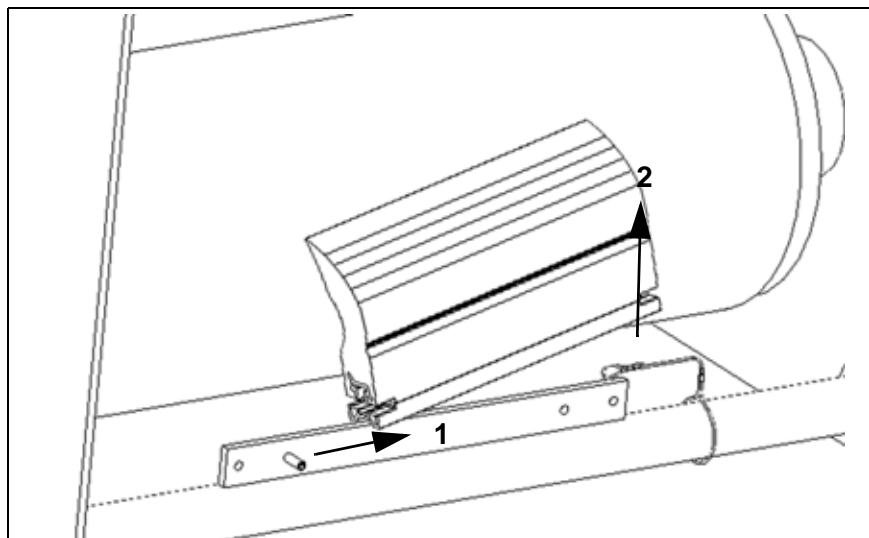


Fig. 10

5. Remove the blade from the hollow clamping pin (1, Fig.10).
6. Remove the blade from the mainframe (2, Fig. 10).

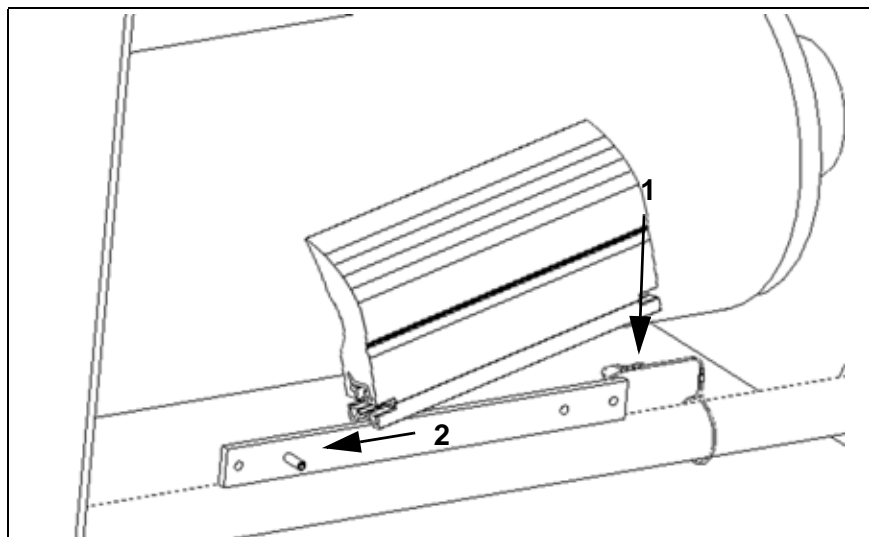


Fig. 11

7. Place a new blade onto the mainframe (1, Fig. 11)
8. Slide the blade onto the hollow clamping pin (2, Fig. 11).

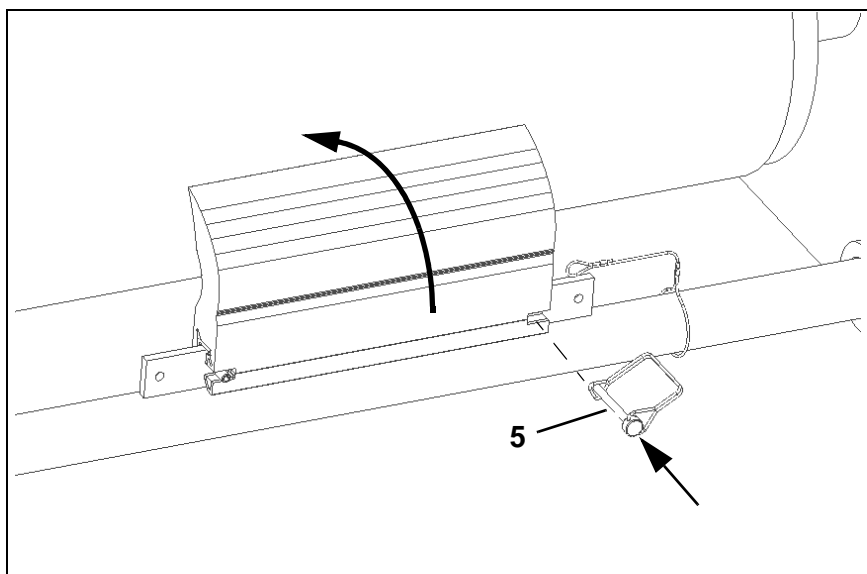


Fig. 12

9. Insert the pin hitch (5, Fig. 12).
10. Close the retaining clip.
11. Place the cleaner back against the head pulley.
12. Tighten the cleaner.



## NOTE

Refer to the installation manual for the tension values of your specific tensioner.

13. Remove all tools from the working area.
14. Switch the conveyor back on.
15. Observe the cleaner and check its cleaning performance. See Section 7 "Troubleshooting" if the cleaning power is insufficient.

## 7 Troubleshooting

### 7.1 Safety information



#### NOTE

The product is exposed to highly diverse bulk materials and is often used under extreme operating and environmental conditions. Malfunctions other than those listed below can therefore occur. In this case, either Martin Engineering or one of its representatives can assist with the positioning or with special solutions. Do not start up the conveyor system again until the fault has been recognised and cleared.

### 7.2 Troubleshooting

Check the following items if excessively high wear on the blades and/or unsatisfactory cleaning performance are/is noticed following installation:

Symptom	Cause	Remedy
High wear on the blades.	The cleaner is too tightly tensed on the conveyor belt.	Reduce the tension. (Tension values can be found in the tensioner's installation manual)
	Cleaner installed in the material flow.	Install the cleaner in a different place.
Insufficient cleaning performance and material accumulation.	The cleaner is not tensed enough or is tensed too tightly on the conveyor belt.	Increase or reduce the tension.
	The blades are worn.	Inspect the blades and replace if necessary. (Sec. 6.2 "Weekly maintenance").
	The cleaner is installed too high up on the head pulley and impairs the material flow.	Install the cleaner at a lower level.
Unusual pattern of wear or damage to the blade.	Damaged conveyor belt or connection points.	Inspect the conveyor belt's connection points and repair or replace as needed.
	Cleaner installed in the material flow.	Install the cleaner in a different place.
	Different tension values of the In-line-Reversing tensioner.	Check the tension values and possibly re-tighten.

Tab. 5: Troubleshooting



Symptom	Cause	Remedy
Deformed or broken mainframe caused by the blade slippage.	Blade at or beyond the wear line.	Replace blade.
	Incorrect positioning of the mainframe.	Check the position of the mainframe and correct if necessary.
Noises or vibrations.	Cleaner on the conveyor belt too loose or too tightly tensed.	Correct the tension if necessary.
	The blade's urethane is possibly not suitable for the application.	Contact Martin Engineering or one of its representatives.
Corrosion or chemical decomposition.	The blade's urethane is possibly not suitable for the application.	Contact Martin Engineering or one of its representatives.

Tab. 5: Troubleshooting

## 8 Storage, de-installation, disposal

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### 8.1 Packing and transportation

The products described here are packed and shipped by Martin Engineering.

The products may be transported solely in the Martin Engineering packaging.

The logistics company in charge of the shipment shall be responsible for any damage and/or loss.

### 8.2 Storage

To ensure optimal function of the product, Martin Engineering recommends storing its components in a dry place at room temperature where they are protected against direct sunlight.

The best storage conditions are at +0 °C to +30 °C and 60% relative humidity.

Martin Engineering guarantees that the stored products will remain fully functional for at least 2 years under the storage conditions specified here.

### 8.3 De-installation

The de-installation is carried out in the reverse order of the installation (see Section 5.2.3).

### 8.4 Disposal

Assemblies and/or single parts of the Martin Engineering products must be professionally disposed of after usage as follows.

- Complete assemblies must be dismantled, sorted by material type, and separately disposed of.

Comply with all nationally and internationally applicable disposal regulations when disposing of the product.

## 9

## Part numbers

This section lists the product designations with their associated part numbers for the MARTIN® PIT VIPER™ Pre-Cleaner and its accessories.

Please always indicate the part numbers in every order.

## 9.1

## Explanation of part numbers

## MARTIN® PIT VIPER™ Pre-Cleaner

PV1S-aabbccddeef-gg+E

<b>a</b>	<b>Belt width in inches</b>
<b>b</b>	<b>Blade design</b>
11:	solid
10:	segmented
<b>c</b>	<b>Cleaning width in inches</b>
<b>d</b>	<b>Urethane type</b>
OR:	Orange
BR:	Brown (chemical resistance)
CL:	clear (dry bulk material)
GR:	green (resistant to temperature)
NB:	navy blue (sticky bulk material)
<b>e</b>	<b>Option for mainframe</b>
P:	painted (RAL 2004 - Orange)
A4:	stainless steel (1.4571)
<b>f</b>	<b>Inline-Reversing tensioner</b>
Ø:	without tensioner
T:	with Twist Inline-Reversing tensioner
C:	with Spring Cable Tensioner
<b>g</b>	<b>Extended mainframe in dm</b>

## 9.2

### Tensioner

- MARTIN® TWIST™ Tensioner:  
Part number 31443-I+E.
- MARTIN® Cable Tensioner:  
Part number 37944.

## 9.3

### Martin® Inspection Doors

With standard rubber door, up to 177 °C:

- 229 x 305 mm: Part no. CYAR-0912.
- 305 x 356 mm: Part no. CYAR-1214.
- 305 x 457 mm: Part no. CYAR-1218.
- 457 x 610 mm: Part no. CYAR-1824.
- 610 x 610 mm: Part no. CYAR-2424.

With steel door (dust-proof):

- 229 x 305 mm: Part no. CYA-0912.
- 305 x 356 mm: Part no. CYA-1214.
- 305 x 457 mm: Part no. CYA-1218.
- 457 x 610 mm: Part no. CYA-1824.
- 610 x 610 mm: Part no. CYA-2424.

## 9.4

### Installation manuals

- MARTIN® TWIST™ Tensioners:  
Publication number M3296.
- MARTIN® Cable Tensioner:  
Publication number M3734.
- Martin® Inspection Door:  
Publication number M3127.

## 9.5

### Accessories

- Hanger mount:  
Part No. 27382+E.  
For the installation of the Cable Tensioner or TWIST™ Tensioner on the conveyor belt frame instead of a chute wall.

## 9.6

### Warning labels / Warning trailers

- Conveyor Products Warning Label:  
Part no. 23395

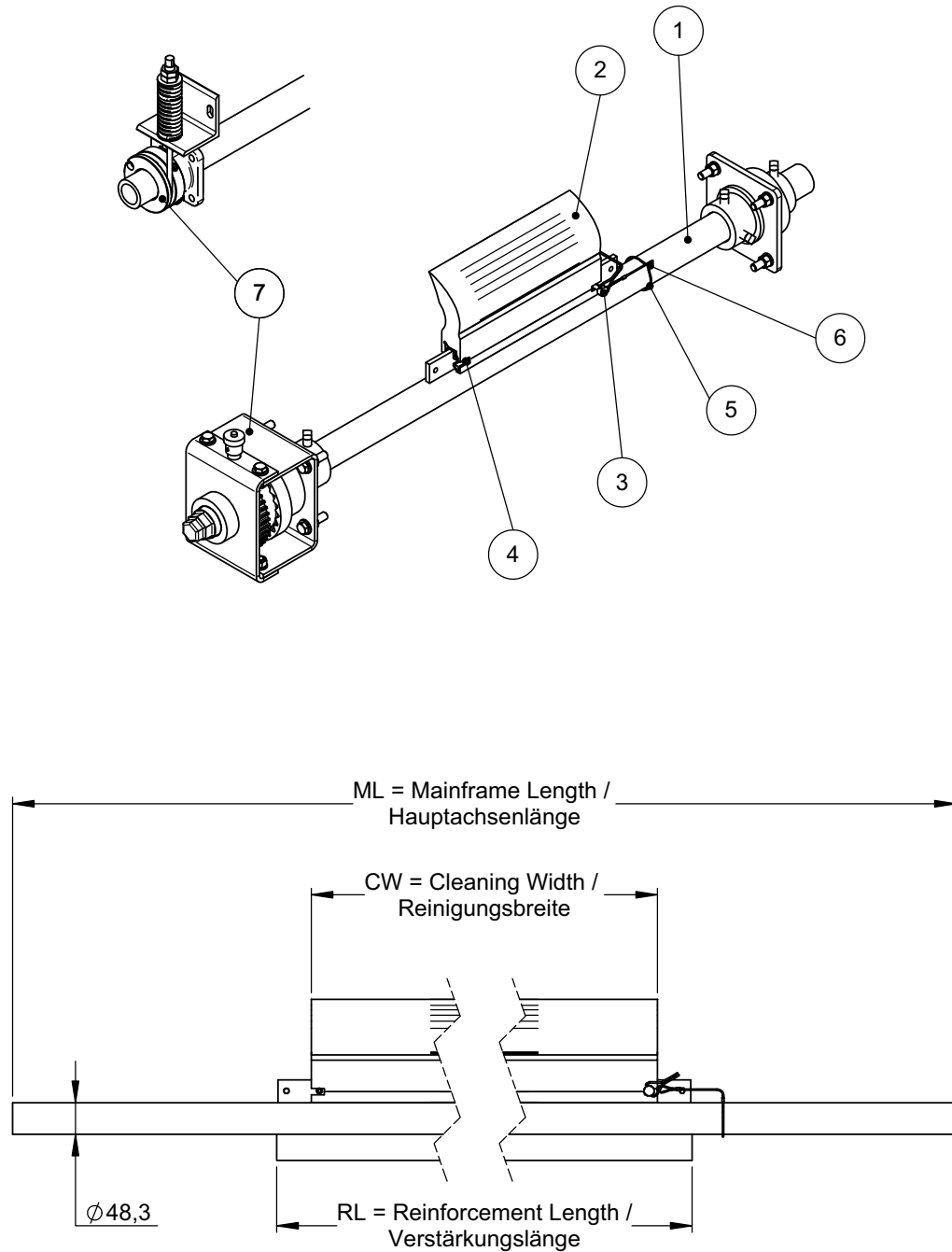


Fig. 13

Item / Pos.	Qty. / Anz.	Description / Beschreibung	P/N / Teile-Nr.
1	1	Pit Viper mainframe / Hauptachse	s.C. / s.T.
2	1	Pit Viper blade / Abstreiferblatt	s.C. / s.T.
3	1	Wire lock pin 1/4" x 2-1/2" / Sicherungsbolzen	32772
4	1	Spring pin 8 x 50 mm / Hohlspannstift	32774+E
5	1	Cable Ø1mm / Kabel	40181
6	2	Cable clip for 1 mm wire / Seilklemme	40182
7	1	Tensioner / Spannvorrichtung	s.C. / s.T.

Part number / Teilenummer	DIM			Part number pos. / Teilenr. Pos.		Extended length / Sonderlänge	
						DIM	
	CW	ML	RL	1	2	ML	RL
PV1S-18XX12XXXX-XX+E	305	1219	-	32756-18-XX+E	PV-18XX12XX	1300 - 1900	-
PV1S-18XX16XXXX-XX+E	406	1219	-	32756-18-XX+E	PV-18XX16XX	1300 - 1900	-
PV1S-24XX18XXXX-XX+E	457	1372	-	32756-24-XX+E	PV-24XX18XX	1500 - 2100	563
PV1S-24XX22XXXX-XX+E	559	1372	-	32756-24-XX+E	PV-24XX22XX	1500 - 2100	563
PV1S-30XX24XXXX-XX+E	610	1524	-	32756-30-XX+E	PV-30XX24XX	1600 - 2200	715
PV1S-30XX28XXXX-XX+E	711	1524	-	32756-30-XX+E	PV-30XX28XX	1600 - 2200	715
PV1S-36XX30XXXX-XX+E	762	1676	-	32756-36-XX+E	PV-36XX30XX	1800 - 2400	870
PV1S-36XX34XXXX-XX+E	864	1676	-	32756-36-XX+E	PV-36XX34XX	1800 - 2400	870
PV1S-42XX36XXXX-XX+E	914	1829	-	32756-42-XX+E	PV-42XX36XX	1900 - 2500	1020
PV1S-42XX40XXXX-XX+E	1016	1829	-	32756-42-XX+E	PV-42XX40XX	1900 - 2500	1020
PV1S-48XX42XXXX-XX+E	1037	1981	-	32756-48-XX+E	PV-48XX42XX	2000 - 2700	1172
PV1S-48XX46XXXX-XX+E	1168	1981	-	32756-48-XX+E	PV-48XX46XX	2000 - 2700	1172
PV1S-54XX48XXXX-XX+E	1219	2134	1325	32756-54-XX+E	PV-54XX48XX	2200 - 2800	1325
PV1S-54XX52XXXX-XX+E	1321	2134	1325	32756-54-XX+E	PV-54XX52XX	2200 - 2800	1325
PV1S-60XX54XXXX-XX+E	1372	2286	1477	32756-60-XX+E	PV-60XX54XX	2300 - 2900	1477
PV1S-60XX58XXXX-XX+E	1473	2286	1477	32756-60-XX+E	PV-60XX58XX	2300 - 2900	1477
PV1S-72XX66XXXX-XX+E	1676	2591	1782	32756-72-XX+E	PV-72XX66XX	2600 - 3200	1782
PV1S-72XX70XXXX-XX+E	1778	2591	1782	32756-72-XX+E	PV-72XX70XX	2600 - 3200	1782

Part number / Teilenummer	Part number pos. / Teilenr. Pos.		Part number description / Teilenr. Beschreibung
	7		
For belt width / Für Förderbandbreite	500 - 1200	1400 - 2000	
PV1S-XXXXXXXXXXC-XX+E	37944	37944-2	Spring cable tensioner / Seilzugspannvorrichtung
PV1S-XXXXXXXXXXT-XX+E	31443-I+E	31433-2RI+E	Twist™ tensioner / Twist™ Spannvorrichtung

Part number / Teilenummer	Part number item. / Teilenr. Pos.	Blade color / Blattfarbe	Range of application / Anwendungsbereich
	2		
PV1S-XXXXXXORXX-XX+E	PV-XXXXXXOR	Orange	Used for 80% of all applications / Geeignet für 80% aller Anwendungen
PV1S-XXXXXXBRXX-XX+E	PV-XXXXXXBR	Brown / Braun	Used for chemical applications / Anwendung mit Chemikalien
PV1S-XXXXXXCLXX-XX+E	PV-XXXXXXCL	Clear / Klar	Used for dry bulk material / Anwendung bei trockenen Schüttgütern
PV1S-XXXXXXGRXX-XX+E	PV-XXXXXXGR	Green / Grün	Used for temperatures above 120°C / Anwendung bei Temperaturen >120°C
PV1S-XXXXXXNBXX-XX+E	PV-XXXXXXNB	Navy blue / Marineblau	Used for sticky materials / Anwendung bei klebrigen Schüttgütern



**Declaration of Incorporation in accordance with Machinery  
Directive (2006/42/EC)  
Annex II B for the installation of an incomplete machine**

We, Martin Engineering,

In der Rehbach 14

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D-65396 Walluf

Fax: +49 6123-75533

herewith declare that the product named in the following

Product designation:

**Belt cleaner**

of make / type:

**MARTIN® PIT VIPER™ Pre-Cleaner**

with serial number:

**not required**

meets the following requirements:

**EC - Machinery Directive 2006/42/EC**

**DIN EN 618 - Equipment and systems for bulk materials**

The following harmonised standards were particularly applied:

**DIN EN ISO 12100 Safety of Machinery**

Notified authority:

**not required**

The installation instructions belonging to the product and the technical documentation are enclosed with the product in their original version.

The commissioning of this product is prohibited until it has been determined that the system in which it is to be installed meets the requirements of versions 98/37/EC and 2006/42/EC of the EC Directive.

Date: 21/01/2010

Manufacturer's signature: Managing director, Michael Hengl





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Subject to technical modifications  
Quality management system certified by DNV - ISO 9001

