Qimarox®

User Manual

Roller conveyor RDC1, RDC6 & RDC7

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Table of contents

1 About this manual

1.1 Introduction

This manual provides information about the RDC1, RDC6 and RDC7 roller conveyors. These conveyors are installed on the Qimarox Prorunner mk1 and used as product infeed or outfeed of the Prorunner mk1. Henceforth the RDC roller conveyors will be referred to as the 'conveyor' and the Prorunner mk1 as the 'machine'.

This manual is intended for:

- Retailers/Original Equipment Manufacturers (OEM), project engineers and mechanics.
- Operators, installation and maintenance engineers and other users.

It is important to carefully read this manual as soon as possible after purchase of the conveyor. Before operating the conveyor this manual should be read by all users. This is necessary to make sure that all new users are familiar with the content of this manual.

System integrators/OEMs
This manual explains configurations that can be used to set up the conveyor. It also provides instructions on how to add or change the conveyors technical components.

Users
The conveyor may be supplied pre-assembled, if so, some chapters in this manual will not be applicable. To integrate the conveyor within a system, refer to the documentation of the Prorunner mk1.

1.2 Product documentation

Document	Reference
Conveyor manual[1]	UM Roller conveyor RDC 1_6_7 v1.1 EN
Prorunner mk1 manual[1]	UM Prorunner mk1
Layout drawing[2]	Layout drawing [serial number]
Specification sheet[2]	Specifications [serial number]
Electrical drawings RDC1[1]	Electrical drawings Prmk1
Electrical drawings RDC6[1]	Electrical drawings Prmk1
OEM parts of the conveyor	

1.3 Source language

This manual was originally written in the English language.

[1] Generic information
[2] Machine specific information

1.4 Symbols used in the manual

The following symbols are used in this manual.

WARNING

Risk of serious injury to the user if the instructions are not accurately followed.

CAUTION

Risk of damage to the conveyor if the instructions are not accurately followed.

Note

To provide additional information to the user about a task or issue.

1.5 Terminology list

The table below explains common terms used in this manual.

Term	Definition
Prmk1	Prorunner mk1
Conveyor	RDC1 or RDC6 or RDC7 roller conveyor
Fenced area	Area around the conveyor that unauthorized personnel cannot enter for safety reasons.

1.6 Further support and information

Qimarox can supply additional expertise and support services, for:

- Training
- Global support
- Service contracts

For more information please contact Qimarox.

2 General

The conveyor has to be identified by the Prmk1 on which it is installed. The layout drawing and specification of the conveyor are bundled in the documentation of the Prmk1.

2.1 Conveyor identification

The conveyor identification is given on the type plate of the Prmk1. The type plate is located on the side of the Prmk1. Refer to the specification sheet of this serial number for specifications of this Prmk1 and conveyor.

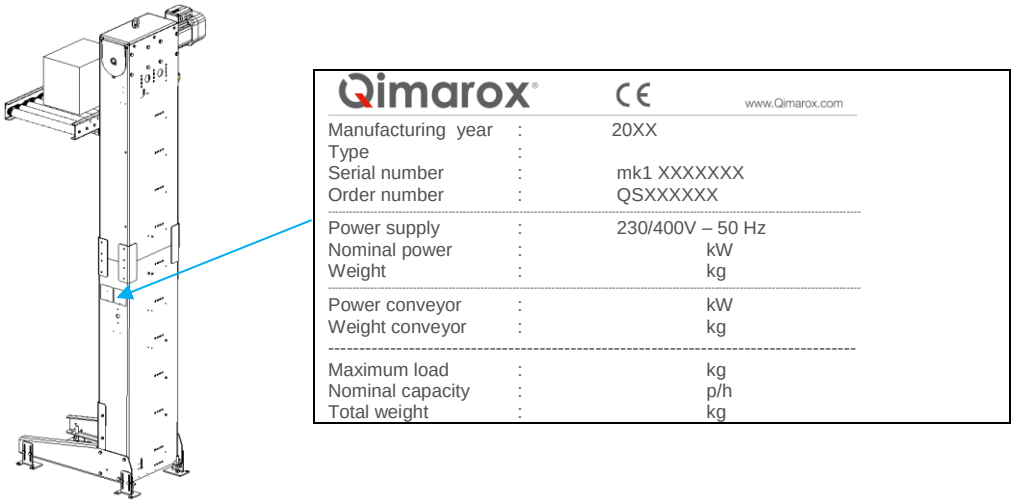

Figure 2-1: Type plate

2.2 Machine layout drawing and specifications

After a Prmk1 order is placed, a layout drawing and specification sheet is sent for approval. After approval the layout drawing and specification sheet are sent as a reference for this manual. The layout drawing and specification sheet include:

- Serial number
- Product dimensions and mass
- Prmk1 and conveyor dimensions and mass
- Configuration
- Speed and capacity
- Motor and sensor specifications

The conveyor can only be used according to the specifications given in this manual, the layout drawing and the specifications sheet. If you want to use the conveyor outside these specifications, you must contact Qimarox to check if this is possible. Inappropriate and/or modified use of the conveyor can result in dangerous safety issues and/or damage. You must obtain written confirmation from Qimarox before using the conveyor in a modified or unspecified manner. Qimarox cannot be held liable for any accidents and/or damages that may occur through inappropriate unauthorized use of the conveyor.

2.3 Warranty

The scope and duration of the warranty is agreed upon when an order is placed for the machine. The warranty only applies if the conveyor is used according to the specifications and if the user and maintenance instructions are observed. The warranty does not cover wear of the parts.

The conveyor warranty is null and void in cases of:

- Unskilled use.
- Inadequate maintenance.
- Unskilled maintenance.
- Modifications made to the conveyor without prior written permission from Qimarox.

2.4 Liability

Qimarox believes to the best of its knowledge that the information in this user manual is accurate. In the event that technical or typographical errors exist, Qimarox reserves the right to make changes to subsequent editions of this user manual without prior notice to holders of this edition. The reader should consult Qimarox if errors are suspected. In no event shall Qimarox be liable for any damages arising out of or related to this user manual or the information contained in it. Except as specified herein, Qimarox makes no warranties, express or implied, and expressly disclaims any warranty of non-infringement, merchantability or fitness for a particular purpose. Customer's right to recover damages caused by fault or negligence on the part of Qimarox shall be limited to the amount paid to Qimarox by the customer. Qimarox shall not be liable for damages resulting from loss of data, profits, use of products, or incidental or consequential damages, even if advised of the possibility thereof. This limitation of liability of Qimarox will apply regardless of the form of action, whether in contract or tort, including negligence. Any action against Qimarox must be brought within one (1) year after that cause of action accrues. Qimarox is not liable for damages, accidents, unsafe conditions, defects, malfunctions, or service failures caused by the following:

- Owner's or user's failure to follow Qimarox's installation, operation and maintenance instructions, including but not limited to neglecting warnings or regulations as shown on the machine or in this manual.
- Usage of the conveyor for other applications, or under other circumstances than indicated in this user manual. This includes abuse, misuse or negligent acts.
- Modifications of any kind to the conveyor. This includes the replacement of parts with parts that are not specified in this manual.
- Insufficient or improper maintenance.

2.5 CE Declaration of Conformity

A CE declaration of conformity is given of the Prmk1 including conveyors. Refer to the User manual of the Prmk1.

3 Safety

3.1 Intended use of the conveyor

The machine is exclusively intended to transport products horizontally into or out of a Prorunner mk1 and vertically up and down the machine. Refer to chapter 4 for a detailed description of the specifications of use.

The machine and conveyor must always be set up within a larger transport system in which products are automatically loaded on and off the conveyors.

WARNING
Any other use of the conveyor is strictly forbidden.

3.2 User types and qualifications

The following user types are referred to in this manual:

- The operator
- The mechanical installer
- The electrical installer
- The maintenance engineer

The maintenance engineer must be familiar with the full content of this manual.

Before any person operates, sets up, electrically installs or maintains the conveyor, permission to carry out these tasks must be obtained from Qimarox. Qimarox determines if the person is qualified for carrying out the given task. The machine should only be operated by qualified personnel.

An electrical installer is only qualified if a person has attended appropriate training and/or attained appropriate industry standard recognized qualifications. Qimarox can provide training if required.

Qimarox can also give advice about actions and tasks to be carried out on the conveyor.

3.3 Safety instructions

3.3.1 General

- Comply with the safety regulations given in this manual. Deviation from these regulations can lead to unacceptable risks.
- Never close doors (if present) in the fenced area of the machine, when a person is inside this area.
- Switch off the conveyor and secure the main power supply switch in the off position with a padlock to prevent the conveyor from being switched on while personnel is working within the fenced area.
- Comply with all relevant local legislation and regulations

3.3.2 Set up

- Connect the conveyor in accordance with the local laws and regulations concerning health and safety.
- Before putting the conveyor into use, check if the conveyor has been set up in accordance with the instructions in this manual and with the layout drawing of the machine.

- Make sure that the transport system complies with all relevant health and safety directives and regulations.

3.3.3 Starting the conveyor

- Do not switch the main power supply on when persons are in contact with the conveyor.
- Do not start the conveyor when persons are in contact with the conveyor.
- Do not start the conveyor when persons are present in the fenced area of the conveyor or machine.
- Before the conveyor is put into operation, all conveyor parts must comply with all relevant health and safety directives and regulations.

3.3.4 During conveyor operation

- Keep your hands and feet away from danger zones.
- Make sure you do not wear loose clothing and secure long or loose hair.
- Make sure that no persons or objects are within the range of any moving parts of the conveyor.
- Make sure that users know and observe all safety rules with regard to the conveyor and the environment in which it operates.

3.3.5 Maintenance and repair

- Turn off the power supply to the conveyor and machine with the main power supply switch before starting any maintenance or repair tasks. Secure the main power supply switch in the off position with a padlock.
- Replace damaged or defective parts before putting the conveyor back into operation.
- Changes and modifications that may affect the safety of the conveyor can only be carried out when these changes and modifications comply with the relevant regulations, legislation, directives and recognized industry standards.
- If changes and modifications are outside the scope of specifications given by Qimarox in this manual and Qimarox has not granted permission changes and modifications, then the changes and modifications will entirely be the responsibility of those persons responsible for carrying out the changes and modifications.
- Electrical installation tasks must only be carried out by qualified personnel.

3.4 Safety provisions

3.4.1 Safety equipment

The conveyor can be equipped with information and warning labels.

Note
Replace labels on the conveyor if they become unreadable or damaged.

Qimarox requires a protection fenced area around the conveyor. Refer to 3.4.2 for more information.

In case of non-compliance with the required safety measures, the CE Declaration of Conformity will become null and void.

3.4.2 Safety fence

Qimarox requires a protection fenced area around the conveyor. Any access doors must be secured with (interlock) door switches. These switches must be included in the emergency stop and safety circuit. The fenced area must comply with EN ISO 13857 and EN 619 standards.

Openings in the fenced area must be designed such that they protect persons against reaching the danger zone. When this is not possible, these openings must be equipped with a light curtain.

Make sure that the fenced area complies with local law and rules for protection against danger. If the fenced area is fitted with a door, it must have a safety switch to shut down the system when opened.

If Qimarox supplies the safety fencing, the specifications will be included in the machine layout drawing.

3.4.3 Safety controls

The provisions must be designed according to a so-called Performance Level (PL) corresponding with the current standard for safety functions of a machine or a machine control in compliance with EN ISO 13849-1:2008.

Emergency stop circuit

The conveyor must have an emergency stop circuit. When one of the emergency stop buttons is pressed, the main power and the control current of the machine are switched off immediately in compliance with EN-ISO 13850_2015.

Temperature protection

The brake chopper resistor is temperature-controlled. If because of specific application properties (e. g. high conveying weight or high conveying speed) the brake chopper resistance is frequently switched, the DriveControl switches off when it becomes too hot (approx. 90 °C / 194 °F inner temperature). If temperature protection is activated, this state is indicated by the LEDs and no start signal will be transmitted to the RollerDrive. When the DriveControl has cooled down, the RollerDrive restarts automatically when a signal is pending.

3.5 Potential risks

The machine is intended to be integrated into a conveyor system. Qimarox has attempted to protect against as many hazards as possible. The following potential risks should be addressed before machine and assembled parts are put into operation:

- Risk of injury caused by moving Poly-V belt or timing belt.
- Risk of injury as a result of moving frame.
- Risk of injury at places where the conveyor of the Prmk1 crosses the supply conveyor.
- Hazards occurring at places where the conveyor connects to other parts of a production line.

3.6 End of life and disposal

Proper use and maintenance of the conveyor will not involve any environmental risks. When the conveyor is no longer useable, the conveyor should be dismantled and disposed of in an environmentally responsible manner.

WARNING

Observe all relevant legislation, regulations, instructions and precautions with regard to health and safety when dismantling the conveyor.

Observe all relevant legislation, regulations, instructions and precautions with regard to the disposal of products in the environment.

4 Description

The conveyor must be attached to the carrier of the Prmk1. It is designed to transport a product horizontally to and from the Prmk1 and stable transport up and down the machine. It must be installed as part of a larger transport system in which products are automatically transported to and from the conveyor.

For the description of the Prmk1 and the system, refer to the user manual of the Prmk1. For the description of an RDC 1 conveyor, refer to 4.2. For the description of an RDC 6 conveyor, refer to4.3 and for the description of an RDC7 conveyor, refer to 4.4.

The conveyor is available in different forms:

- RDC1 – Conveyor for side in- and outfeed.
- RDC6 – Conveyor for front in- or outfeed and side out- or infeed.
- RDC7 – Conveyor for front in- and outfeed.

4.1 General overview

The conveyor consists of a number of rollers over which the product is transported. The rollers are driven by a RollerDrive (A), which is a drum-motor built in a roller. The rollers are linked using Poly-V belts (B). The RollerDrive is powered by the DriveControl (C). The speed of the conveyor can be adjusted in the Drive control using DIP switches or digital input. Refer to the datasheet of the manufacturer for detailed information.

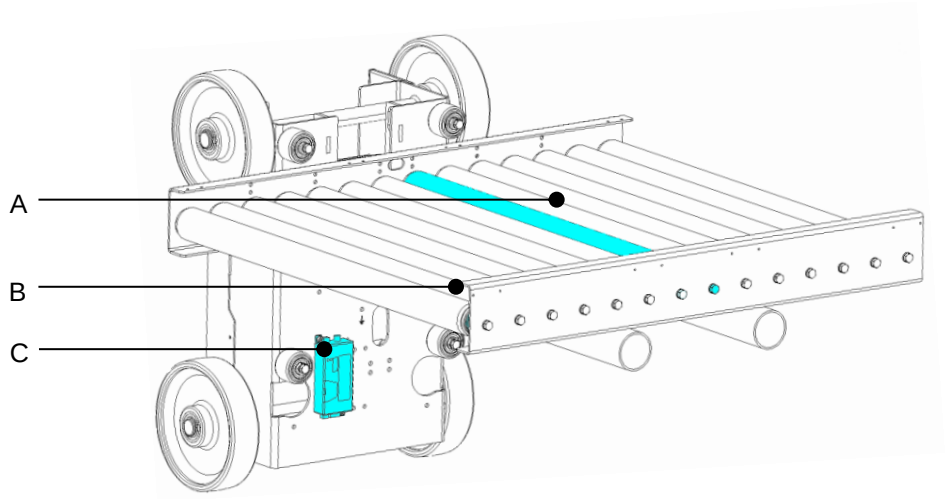

Figure 4-1: General overview

Note
For the conveyor RDC6 the actual conveyor speed is 20% lower than displayed in the documentation of the DriveControl manufacturer. This is due to a 50:40 gear ratio in the transmission between the RollerDrive and other rollers.

4.2 RDC1 conveyor

4.2.1 Overview

The conveyor consists of a number of rollers over which the product is transported. The rollers are driven by a RollerDrive (A), which is a drum-motor built in a roller. The rollers are linked using Poly-V belts (B). For the detection of the product there are two sensors placed, which can be increased by a third sensor (C). The sensors are detecting if (and optionally where) the product is on the conveyor.

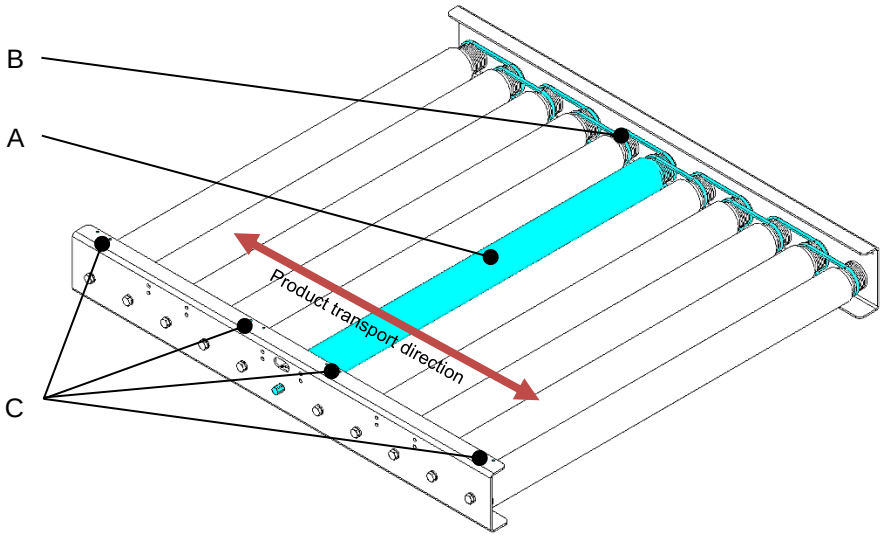

Figure 4-2: Overview RDC1

4.2.2 Sensors

On the infeed conveyor two sensors are mounted and two optional sensors can be added:

- B5 Detection carrier not free 1
- B13 Detection carrier not free 2
- B6 Detection product on conveyor 1 (optional)

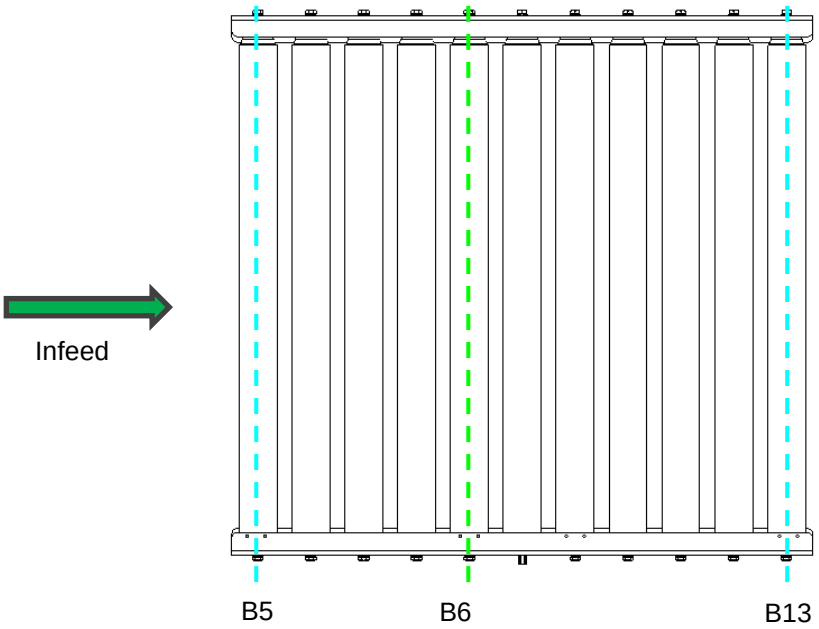

Figure 4-3: Sensors RDC1

4.2.3 Application

The product is transported via a supply conveyor (not in this manual) on to the roller conveyor on either the left – or right side, covering sensor B5. When sensor B5 is uncovered (and optionally sensor B6 is covered), the product is on the conveyor and can be transported vertically to the outfeed position.
Sensor B13 is either used as safety if the product rolls through, if the outfeed is on the same side as the infeed or in the front, or, when the outfeed is on the opposite side of the infeed, to sense the product has left the conveyor. When sensor B13 is covered, the product is rolling off the conveyor. If it's uncovered again, the conveyor is free to move back to its home position.

4.3 RDC6 conveyor

4.3.1 Overview

The conveyor consists of a number of rollers over which the product is transported. The rollers are driven by a RollerDrive (A), which is a drum-motor built in a roller. The rollers are linked using Poly-V belts (B). For the detection of the product there are two sensors placed, which can be increased by a third sensor (C). The sensors are detecting if (and optionally where) the product is on the conveyor.

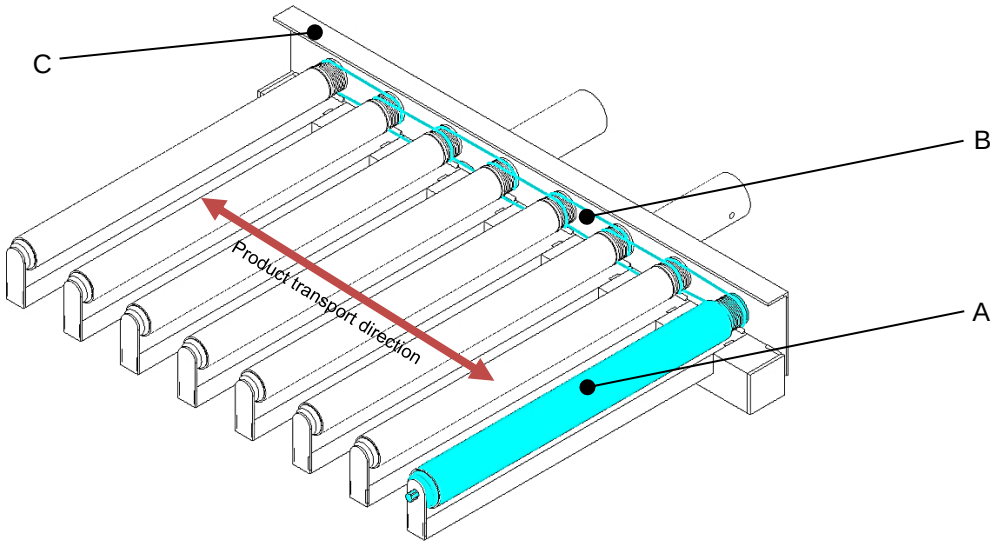

Figure 4-4: Overview RDC6

4.3.2 Sensors

On the outfeed conveyor two sensors are mounted:

- B5 Detection carrier not free 1
- B13 Detection carrier not free 2
- B6 Detection product on conveyor 1 (optional)

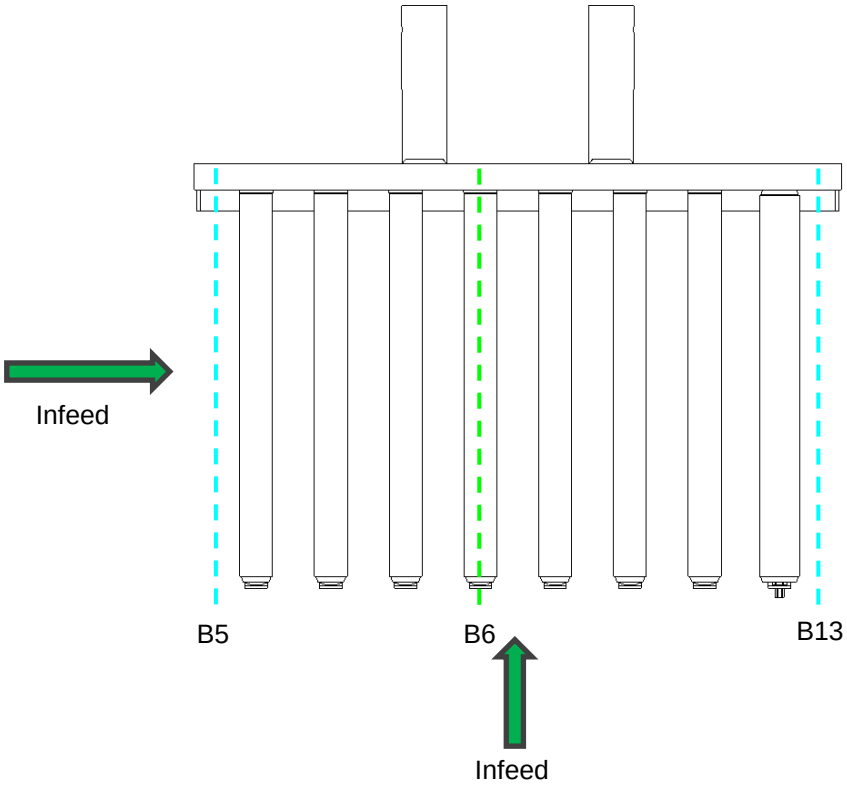

Figure 4-5: Sensors RDC6

4.3.3 Application

The product is transported via a supply conveyor (not in this manual) on to the roller conveyor from either the side or the front. When fed from the side, sensor B5 is covered. When sensor B5 is uncovered (and optionally sensor B6 is covered), the product is on the conveyor and can be transported vertically to the outfeed position.
When fed from the front, a sensor on the end of the feeding conveyor is covered when the product is in place and the conveyor can move to its outfeed position.
Sensor B13 is used as safety if the product rolls through, if the outfeed is on the same side as the infeed or in the front, or, when the outfeed is on the opposite side of the infeed, to sense the product has left the conveyor. When sensor B13 is covered, the product is rolling off the conveyor. If it's uncovered again, the conveyor is free to move back to its home position.
If the outfeed position is in front, the product is lowered on the outfeed conveyor, covering the sensor on this conveyor. When the sensor is covered, the product is transported off the conveyor.

4.4 RDC7 conveyor

4.4.1 Overview

The conveyor consists of a number of rollers over which the product is transported. The rollers are driven by a RollerDrive (A), which is a drum-motor built in a roller. The rollers are linked using Poly-V belts (B). At the back of the conveyor a product stopper (C) is installed to prevent products rolling off the conveyor. For the detection of the product there is a sensors placed in the front of the conveyor, which can be increased by a second sensor (D). The sensors are detecting if (and optionally where) the product is on the conveyor.

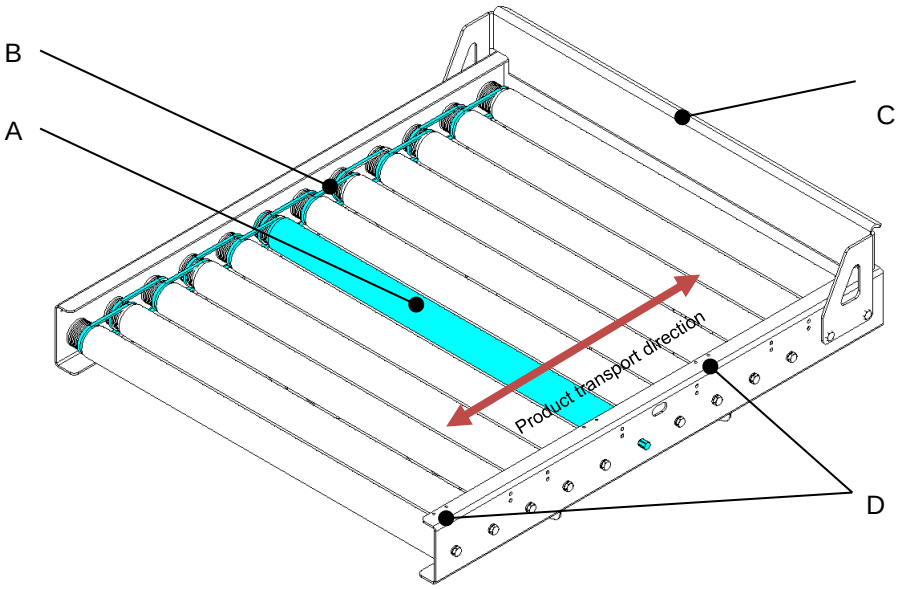

Figure 4-6: Overview RDC7

4.4.2 Sensors

On the infeed conveyor a sensors is mounted and one optional sensors can be added:

- B5 Detection carrier not free 1
- B6 Detection product on conveyor 1 (optional)

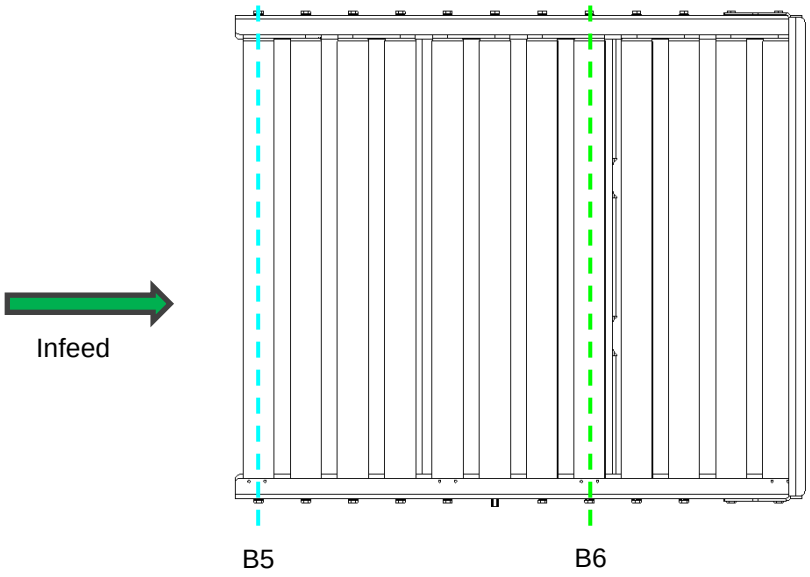

Figure 4-7: Sensors RDC7

4.4.3 Application

The product is transported via a supply conveyor (not in this manual) on to the roller conveyor, covering sensor B5. When sensor B5 is uncovered (and optionally sensor B6 is covered), the product is on the conveyor and can be transported vertically to the outfeed position.
At the outfeed position sensor B5 is used to sense if the product has left the conveyor. When sensor B5 is covered, the product is rolling off the conveyor. If it's uncovered again, the conveyor is free to move back to its home position.

4.5 Usage specifications

Always comply with the specifications below, in the specification sheet, on the type plate and in the electrical drawings.

If a different product weight or dimension is required, the conveyor must be adjusted to accommodate this. These type of adjustments may only carried out by Qimarox or after written permission from Qimarox has been obtained.

4.5.1 Specifications of the surrounding area

The surrounding area of the conveyor must have the following properties:

Property	Description
Surrounding	Inside and normally clean for operation. There must be sufficient space around the conveyor to carry out maintenance.
Relative air humidity	Maximum 80%
Temperature	Between +5°C (41 F) and 40°C (104 F)

When the specifications for the surrounding area deviate from the table above, the conveyor must be adjusted to this. Such adjustments shall always be carried out by Qimarox or after permission from Qimarox.

4.5.2 Electrical specifications

Refer to the type plate and specification sheet of the machine for the electrical specifications.

4.6 Connection unit

The sensors are wired to the connection unit of the machine. This connection unit is located at the top of the machine just under the motor.

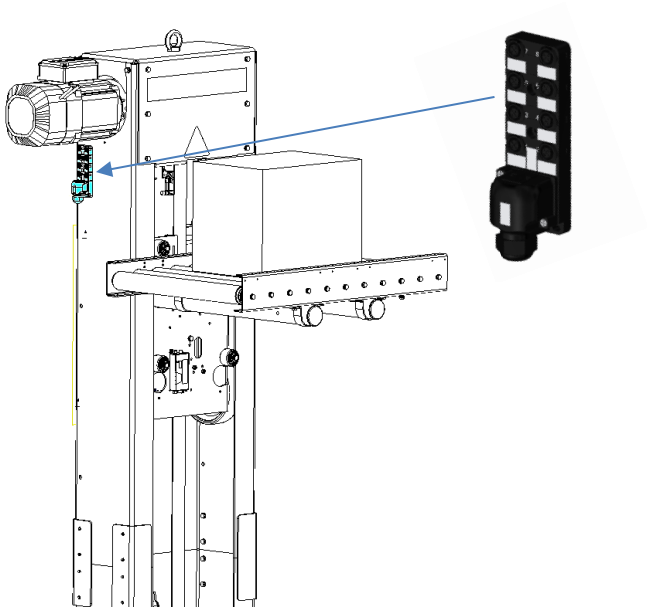

Figure 4-8: Connection unit

5 Installation

This chapter describes installation instructions. Refer to the user manual of the machine for installation instructions of the conveyor within a system.

5.1 Delivery

The conveyor is delivered fully assembled, but the whole machine can be delivered either in parts or fully assembled.

5.2 Unpacking

1. Check the packing list when unpacking the conveyor.
2. Immediately report damaged or missing parts to Qimarox.

5.3 Location

Refer to the layout drawing for detailed information about the location of the conveyor.

5.4 On-site transport

General preparation include:

1. Check the floor load of the floor on which the hoisting system is placed.
2. Block the working area to ensure a safe environment during hoisting.

5.4.1 Lifting of roller conveyor RDC1

1. Attach a suitable hoisting belt (A) in the center of gravity around the main frame (B) of the conveyor (between rollers).
2. Lift the conveyor in vertical orientation
3. Fix the conveyor to the Prmk1 before removing the hoisting belt. Refer to section 0.

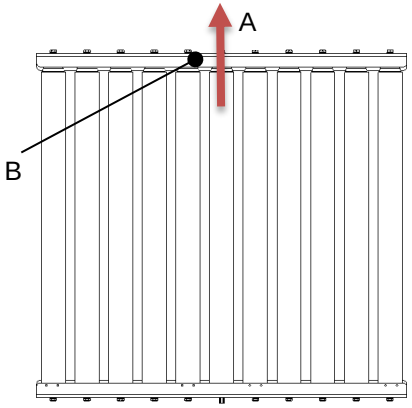

Figure 5-1: Lifting RDC1

5.4.2 Lifting of tilting roller conveyor RDC6

1. Attach a suitable hoisting belt (A) in the center of gravity around the frame (B) of the conveyor (between rollers).
2. Lift the conveyor in vertical orientation
3. To position conveyor at end location: Lower the conveyor vertically into the carrier and attach it using the supplied bolts.
   Lay the machine on its back and mount the carrier in the machine.
4. Fix the conveyor to the Prmk1 before removing the hoisting belt. Refer to section 0.

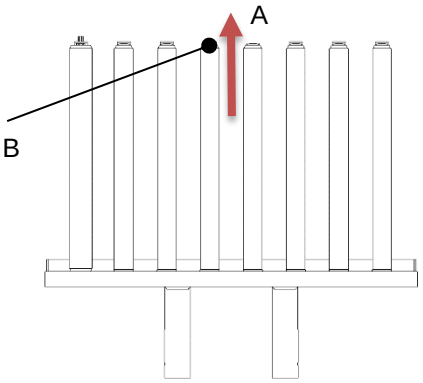

Figure 5-2: Lifting RDC6

5.4.3 Lifting of roller conveyor RDC7

4. Attach a suitable hoisting belt (A) around both main frames (B) of the conveyor (between rollers).
5. Lift the conveyor in vertical orientation
6. Fix the conveyor to the Prmk1 before removing the hoisting belt. Refer to section 0.

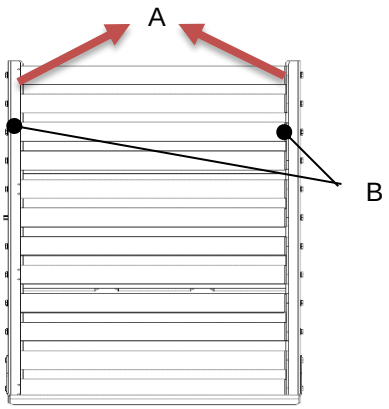

Figure 5-3: Lifting RDC7

5.5 Preparations for a Qimarox installation (optional)

The preparations given below will need to be done before Qimarox can assemble the machine on site. All equipment listed below must be present before and during assembly.

1. Indicate the contact person to whom the mechanic of Qimarox must report when arriving or leaving before and after the installation.
2. Make sure that the mechanic of Qimarox is assisted by qualified mechanics of the client. Refer to chapter 3.
3. Make sure that the place where the assembly takes place:
   - is accessible, has sufficient light and is at room temperature.
   - has been laid out such that the mechanics can work safely and without interruptions.
   - is suitable for drilling and/or grinding, if necessary.
4. Provide hoisting equipment:
   - preferably a bridge crane, minimum carrying capacity 1.5 x the weight of the conveyor.
   - or a fork-lift truck combined with a hoist with a minimum capacity of 2 x the weight of the conveyor at a lifting height with a minimum height of the conveyor mounting height plus 2 meters.
5. Provide electric power (230 V AC) at a maximum of 5 meters from the place of assembly of the conveyor.
6. Provide the correct safety provisions:
   - Moveable scaffolding or an aerial work platform.
   - Personal protection equipment.

5.6 Installing the conveyor

WARNING

The conveyor may only be set up by qualified personnel. Refer to chapter 3.

When the machine is delivered in parts, the conveyor needs to be installed. Paragraph 5.6.1 tells the installation of the RDC1, paragraph 5.6.2 tells the installation of the RDC6 and paragraph 5.6.3 tells the installation of the RDC7.
Preparation

- Make sure that a hoisting system above the conveyor is available. Refer to section 5.4.
- If Qimarox supplied support to floor: Make sure that the surface is level and meets the requirements for carrying the weight of the conveyor. Refer to the layout drawing.

5.6.1 Installing conveyor RDC1

For transport on sit refer to paragraph 5.4.1.

1. Lift the conveyor in vertical orientation
2. To position conveyor at end location: Lay the machine on its back. Lower the conveyor vertically on to the arms of the carrier. Attach the conveyor, with suitable space between the frame of the machine and the conveyor, using the brackets.
3. Connect the sensor cables to the T-coupler and the RollerDrive cable to the DriveControl.
4. Fix the conveyor to the Prmk1 before removing the hoisting belt.

5.6.2 Installing conveyor RDC6

For transport refer to paragraph 5.4.2.

1. Lift the conveyor in vertical orientation
2. To position conveyor at end location: Lower the conveyor vertically into the carrier and attach it using the supplied bolts.
   Lay the machine on its back and mount the carrier in the machine.
3. Connect the sensor cables to the T-coupler and the RollerDrive cable to the DriveControl.
4. Fix the conveyor to the Prmk1 before removing the hoisting belt.

5.6.3 Installing conveyor RDC7

For transport on sit refer to paragraph 5.4.3.

5. Lift the conveyor in vertical orientation
6. To position conveyor at end location: Lay the machine on its back. Lower the conveyor vertically on to the arms of the carrier. Attach the conveyor, with suitable space between the frame of the machine and the conveyor, using the brackets.
7. Connect the sensor cables to the T-coupler and the RollerDrive cable to the DriveControl.
8. Fix the conveyor to the Prmk1 before removing the hoisting belt.

6 Maintenance

CAUTION

- The maintenance as described in this chapter is based on 2000 running hours per year. Adjust the maintenance frequency to the actual number of running hours per year.
- If required, Qimarox can carry out the maintenance activities.

6.1 Specific safety regulations

For the proper functioning of the conveyor the various conveyor parts must be regularly maintained. In this way defects and inaccuracies of the machine are prevented.

WARNING

- Only a qualified maintenance engineer is allowed to carry out maintenance activities on the conveyor. Refer to chapter 3.
- Turn off the power supply to the conveyor with the main switch before starting any maintenance or repair activities. Secure the main switch with a padlock.
- Cylinder remains pressurized when the valve is in mid-closed position.
- Do not use any corrosive and inflammable solvents or cleaning agents on the conveyor that contain TRI, PER, TETRA or FCHC. When you use chemical substances (cleaning agents), obey the instructions on the packaging.
- After having completed maintenance activities, always put all safety provisions that have been removed in place again.
- Make sure that the conveyor has always run empty before carrying out any activities. No products may be present on the conveyor.
- Take the appropriate measures for safely working at heights.

6.2 Preventive maintenance schedule

The maintenance schedule is a general list for all conveyors described in this manual. Not all components are present in each conveyor.

6.2.1 Daily maintenance

Item	Definition	Action when required by the check
Entire conveyor	Check for visible damage.	Replace damaged parts.
	Check for visible dirt.	Clean the machine. Refer to section 6.3

6.2.2 Weekly maintenance

Item	Definition	Action when required by the check
Poly-V belts	Check for wear or visible damage.	Replace Poly-V belt.
Poly-V head	Check for wear or visible damage.	Replace roller.
Cabling	Check for visible damage.	Replace the cable.

6.2.3 Monthly maintenance

Item	Definition	Action when required by the check
Roller drive	Follow the instructions in the manual of the manufacturer of the roller drive.	Follow the instructions in the manual of the manufacturer of the roller drive.
Sensors	Check for visible damage.	Replace the sensors if necessary.
	Check for loose parts	Fasten loose parts.
	Clean. Refer to section 6.3	
Cabling	Check if all cables are fastened tightly.	Reconnect cables if necessary.
Roller sleeve (optional)	Check for excessive wear	Replace roller

6.2.4 6-monthly maintenance

Item	Definition	Action when required by the check
Roller drive	Follow the instructions in the manual of the manufacturer of the roller drive.	Follow the instructions in the manual of the manufacturer of the roller drive.
All bolt connections	Check all bolt connections.	Tighten bolts using the correct tool and torque.

6.2.5 2-yearly maintenance or after 10,000 running hours, whichever comes first

Item	Definition	Action when required by the check
Roller drive	Follow the instructions in the manual of the manufacturer of the roller drive.	Follow the instructions in the manual of the manufacturer of the roller drive.

6.3 Cleaning

WARNING

- Do not use any corrosive and inflammable solvents or cleaning agents on the conveyor that contain TRI, PER, TETRA or FCHC. Read the instructions on the packaging when chemical substances (cleaning agents) are used.
- Electrical components should not make contact with water or other liquids.
- Do not clean the conveyor with compressed air or water under high pressure.
- Avoid parts made of rubber or plastic, such as cables and gaskets, from making contact with oil, solvents or other chemicals.

1. Make sure there are no products on the conveyor.
2. Switch off the machine.
3. Secure the main power supply switch with a padlock.
4. Remove deposit and dirt by hand.
5. Report any damage to the technically responsible person or to Qimarox and make sure that any damage is remedied before restarting the conveyor.

7 Troubleshooting

Problem	Possible cause	Solution
Some rollers are not (fully) rotating	Worn Poly-V belt	Replace Poly-V belt
	Worn Poly-V head of roller	Replace roller
Incorrect conveying speed	Wrong settings in DriveControl	Set DIP-switches in DriveControl to match specification sheet
The motor does not run.	Electrical failure.	Remedy the electrical failure.
	The operation or main switch is on "OFF".	Set the operation/main switch to "ON".
	The door switch or emergency stop is active.	Release the emergency stop switch after having checked if the situation is safe.
	Temperature protection activated.	Let the motor cool down. Refer to chapter 3.4.3
The motor does not run and makes a humming sound.	Mechanical or electrical failure.	An authorized qualified person should disconnect the motor. Refer to chapter 3
	No full power.	Check the power cable for a break or short circuit.
	Poor contact.	Check the terminal clamps.
	Defect in the motor.	Check the connection.
	Blown fuse.	Replace the fuse.
	Thermal safeguard triggered.	Investigate and remedy the cause of the heating. Refer to chapter 3.4.3
	Motor protection triggered by short circuit or overload.	Investigate and remedy the cause. Then reset the motor protection.
	Defective drive control.	Investigate and remedy the cause. Replace the drive control.

8 CE declaration of conformity

The CE declaration of conformity of the Prmk1 including conveyors can be found in the User manual of Prorunner mk1. This manual is provided by Qimarox.

9 Electrical drawings

The drawings of this conveyor can be found in an external document. For the electrical drawings refer to “*Electrical drawings Prmk1 EN*”.

9.1 RollerDrive EC310/EC5000

Operating manual: EC310

https://www.qimarox.com/download/interroll-rollerdrive-ec310-eng/

Operating manual: EC5000

https://www.qimarox.com/download/interroll-roller-drive-ec5000-eng/

9.2 DriveControl DC20/DC54/DC2048

Refer to the specification sheet of the machine for the correct DIP-switch settings.

https://www.qimarox.com/download/interroll-drivecontrol-instruction-manual-eng-2/

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