

SRF-P 2012 ACCUMULATING ROLLER CHAIN CONVEYOR

Each serial number is unique to that specific conveyor and provides mk North America with complete order details. The conveyor serial number is located on the frame at the drive end of the conveyor. See section 2 for more details.

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GENERAL INFORMATION

1.1 Foreword

Congratulations on purchasing a conveyor from mk North America, Inc., a leading manufacturer of quality low profile conveyors. Our more than 30 years experience in material handling allows us to offer robust solutions with long life and reliable operation. We strive to make the best products in the industry even better and we are committed to making sure our customers get top notch support before, during, and after each and every sale.

1.2 The importance of reading your manual

Inside this manual you will find the instructions on how to set up and maintain your mk conveyor properly, as well as maximize its performance. Please take the time to read this manual and familiarize yourself with these set up and maintenance instructions. These instructions will help assure a long product life that requires a minimum amount of service and keeps your conveyor working at its maximum capacity.

1.3 If you need assistance

If you need assistance there are a variety of ways to get it. You can contact our customer service team Monday through Friday, 8am-5pm (Eastern Time) at (860) 769-5500. You can also visit our website for additional information and technical documentation at www.mknorthamerica.com. In addition, your local representative can provide support in many instances.

1.4 When your shipment arrives

- Check your shipment 1)
 - caused during shipment. that may have occurred inside the packaging materials.
 - b) Carefully unpack the crate/container making sure to inspect the components for damage
 - c) If you find any damage, please contact the carrier and mk North America, Inc.
 - d) Lastly, check the contents against the packing slip provided by mk for any discrepancies. If you should find any, please contact mk North America, Inc.
- 2) Locate your ordered items
 - economical way.
 - b) Review the packing slip against your Purchase Order.



a) If you have not already done so, visually inspect the shipping crate/container for any damage

a) Each mk conveyor will ship in its own custom built container, carefully packaged in the most

SERIAL NUMBER LABEL

• The conveyor's serial number is located on the frame at the drive end of the conveyor.

NORTH AMERICA, INC.	Туре:	Date:	
	Serial #:	CO #:	
	Drawing #:		Coor for
	www	.mknorthamerica.com 🛛 (860) 769-5500	Scan for Documentation

Type:

This description refers to the type of unit that is associated with the particular serial number. The type should NOT be substituted for the serial number when inquiring.

Serial #:

This number is unique to this item. With this number we can access all of the original order details.

Drawing #:

This number, if applicable, refers to the specific drawing that was created for this unit.

Date:

This is the date that the unit was scheduled to ship.

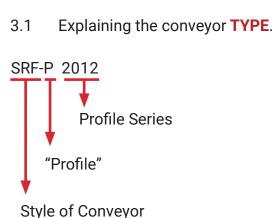
CO#:

This is the customer order number in which this unit was built. This is an mk North America, Inc. internal number. This number is also referenced on any related invoices, etc.

Scan for Documentation:

Scanning this QR code will bring you to a webpage specific for the conveyor on this order. From here you can access drawings and spare parts.

3 CONVEYOR DESCRIPTION



Style of Conveyor

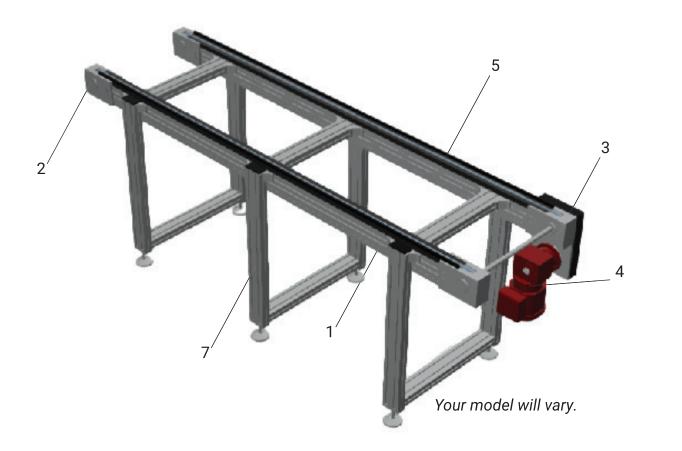
DGF (Doppel-Gurt Foerderer) Dual-Belt Conveyor GUF (Gurt Foerderer) Belt Conveyor KFG (Knickfoerderer Gurt) Bent "Gooseneck" Belt Conveyor KFM (Knickförder Modular) Bent "Gooseneck" Plastic Modular Belt Conveyor KGF (Kurvengurt Foerderer) Curve Belt Conveyor KMF (Kurvengängiges Modulband) Curved Modular Belt Conveyor KTF (Kettengurt Foerderer) Chain Conveyor MBF (Modulband Foerderer) Modular Belt Conveyor RBM (Rollenbahn Motor) Motorized Roller Conveyor RBS (Rollerbahn Schwerkraft) Idler Roller Conveyor RBT (Rollenbahn Tangentialkette) Drive Roller Conveyor SBF (Scharnierband Foerderer) Hinged Belt Conveyor SPU (Staufaehiges Pallettenumlaufystem) Continuous Motion Pallet Conveyor SRF (Staurollen Foerderer) Accumulating Roller Conveyor TKU (Taktkettenförderer) Timing Chain Conveyor ZRF (Zahnriemen Förderer) Timing Belt Conveyor



CONVEYOR DESCRIPTION (CONT.) 3

Convevor Components 3.2

The SRF-P 2012 has many typical conveyor components. Below is a description of the basic parts and options for the SRF-P 2012 conveyor. The items you receive will vary based on your actual purchase order. Items may appear different on your model based on your particular order requirements. Consult your approval drawing for specific items included in your order.



Typical Components

- 1) **Conveyor Frame**
- 2) Idler End
- 3) Gearmotor Mount/Drive Assembly
- 4) Gearmotor
- 5) Chain
- 6) Controller (Not Shown)
- 7) Support Stand

WARRANTY INFORMATION

Warranty

mk North America, Inc. (MKNA) offers a COMPLETE ONE YEAR WARRANTY from the date of delivery, to the original purchaser of the MKNA equipment (CUSTOMER), to be free from defects in material and workmanship; under normal use and with proper installation, maintenance and cleaning.

Additionally MKNA offers a LIMITED 10 YEAR WARRANTY on all equipment that MKNA is the original manufacturer of, to be free from defect and workmanship.

This warranty is extended by MKNA only to CUSTOMER, and is non-transferable. All warranty requests shall be made by CUSTOMER.

MKNA will replace or repair, at our factory or any other location we designate², any defective part within the warranty period and without charge. It is at MKNA's sole discretion whether to repair or replace. CUSTOMER will provide MKNA with a prompt written notice of the defect, including the serial number of the unit (when applicable) and the date of delivery.

At MKNA's request CUSTOMER will return all defective parts for evaluation at MKNA. MKNA will provide CUSTOMER with a return goods authorization number (RGA#). No parts will be returned without a RGA#. The RGA# must clearly be marked on all labels, packages and packing slips.

CUSTOMER shall pay all costs for packaging, shipping, duties and/or any other related costs in the sending or receiving of parts. CUSTOMER is responsible for all labor associated with sending or receiving of parts.

MKNA PROVIDES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; UNLESS IT IS AGREED TO BY MKNA AND CUSTOMER IN WRITING PRIOR TO PLACEMENT OF ORDER. Such agreement requires approval of MKNA Management.

UNDER NO CIRCUMSTANCES SHALL MKNA BE HELD LIABLE FOR DAMAGES OR LIABILITY FOR LOSS OF PRODUCTION, PRODUCT, EQUIPMENT OR PROFITS OR LIABILITY FOR DIRECT, INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES TO PERSONS OR PROPERTY, WHATSOEVER. CUSTOMER agrees that it is their sole remedy for liability of any kind, including negligence with respect to the equipment and services furnished by MKNA shall be limited to the remedies provided herein. This warranty shall not apply to any failure of the unit or its components caused by lack of maintenance and/or improper maintenance, incorrect adjustments, misuse or unreasonable use or exposure to chemicals and/or environments which the unit is not designed for. Unauthorized modification of the unit or the use of non-MKNA replacement parts and building components voids this warranty.

¹. The limited 10 year warranty does not apply to equipment and components manufactured by others. Such equipment and components are subject to any limitation contained in the original manufacturer's warranty and include, but are not limited to: bearings, belts, casters, controllers, motors and pneumatic devices.

² No work will be performed by MKNA or an MKNA factory authorized service representative at the site of installation unless in MKNA's opinion it is impractical for Customer to remove and return the defective part to MKNA's factory.

EXCEPT AS EXPRESSLY STATED HEREIN, THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, OF THE EQUIPMENT OR SERVICES FURNISHED BY MKNA OR FACTORY AUTHORIZED SERVICE REPRESENTATIVE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

mk North America, Inc. reserves the right to change, modify or discontinue products and/or specifications with or without notice. All of mk North America, Inc. products are covered by this warranty.



5 SAFETY REQUIREMENTS

5 SAFETY REQUIREMENTS (CONT.)

5.1 Warnings - Safety Guidelines

Climbing, sitting, walking or

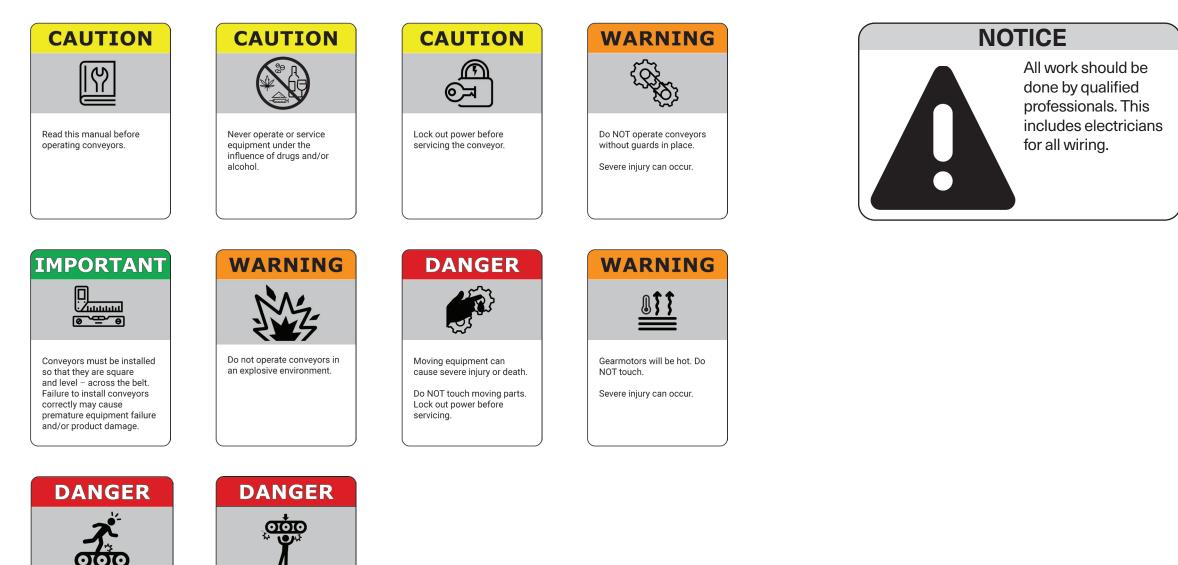
time could result in severe

injury or death.

KEEP OFF!

riding on the conveyor at any

READ AND UNDERSTAND ALL OF THESE WARNINGS PRIOR TO OPERATING EQUIPMENT.



Always support conveyor

supports can cause the conveyor to fall creating a

stands or supports. Loosening stands or

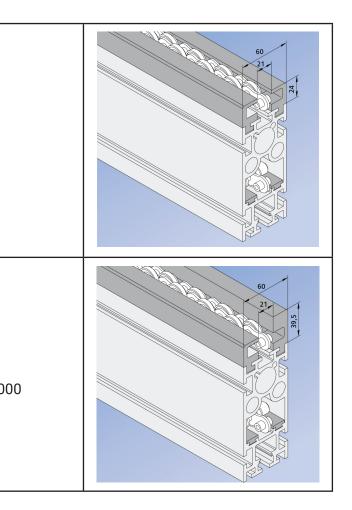
crush hazard.

sections prior to loosening



6 CONVEYOR SPECIFIC INFORMATION CONVEYOR SPECIFIC INFORMATION (CONT.) 6 Wear Strip Options: Overview of Chains 6.1 6.2 Styles: Part Number: K11406 Pitch: 3/4" Wheel Material: Steel Wheel Placement: In-line Option A mk wear strip 22.89.2000 (2X) Part Number: K11407 Pitch: 3/4" Wheel Material: Plastic Wheel Placement: In-line Option B mk wear strip 22.89.2000 and 22.50.2000 Part Number: K11423 Pitch: 3/4" Wheel Material: Steel Wheel Placement: Staggered NOTE: Standard mk UHMW-PE wear strips will begin to soften at 149°F/65°C. Part Number: K11422 Pitch: 3/4" Wheel Material: Plastic Wheel Placement: Staggered





WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS

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WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS

7.1 Important Notes About Wear Items & Maintenance

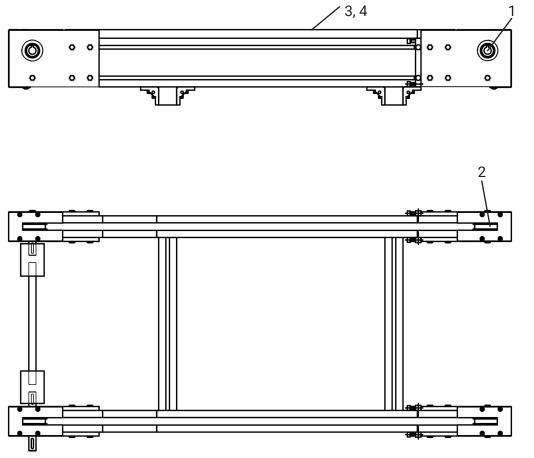
The following information regarding life of the wear items and service or adjustment intervals of the functional elements are only GUIDELINES. Conveyors are application-specific products whose life expectancy can vary depending on their relative loads and speeds, and which can be significantly influenced by environmental factors.

- All moving components and screw connections should be checked every 6 months.
- All safety-relevant components should be part of a regularly scheduled weekly inspection
- The proper function of these components must be confirmed at all times.
- Do NOT operate conveyors if safety-relevant components are damaged or missing.
- All parts which contact the product should be cleaned weekly (example: chain).
- · Chains require little special care.
- · Remove heavy grease coatings with ethyl alcohol.



WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.) 7

SRF-P 2012 AA 7.2



WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

SRF-P 2012 AA (Cont.) 7.2

Maintenance Work for SRF-P 2012 AA

Position	Description	Action*	Interval in Hours (Months)	Lubricant	
1	Roller Bearing	Ι	1,000 Hours (Max. 6 Months)		
2	Drive/Idler Sprocket	I, C	500 Hours (Max. 3 Months)		
	Wear Strip	I, C	500 Hours (Max. 3 Months)		
3		R	If wear is visible		
	Chain	I, C, L,	I, C, L, T	500 Hours (Max. 3 Months)	
4		R	If chain stretch is greater than 3%	SAE20-SAE50	

* LEGEND: Inspect, Replace, Tension, Clean, Lubricate (grease).

Position	Description	Part Number
1	Roller Bearing 6007-2RS1	K101000443
2	Drive/Idler Sprocket	58.12.0046
3	Wear Strip	See Page 11
4	Chain	See Page 10

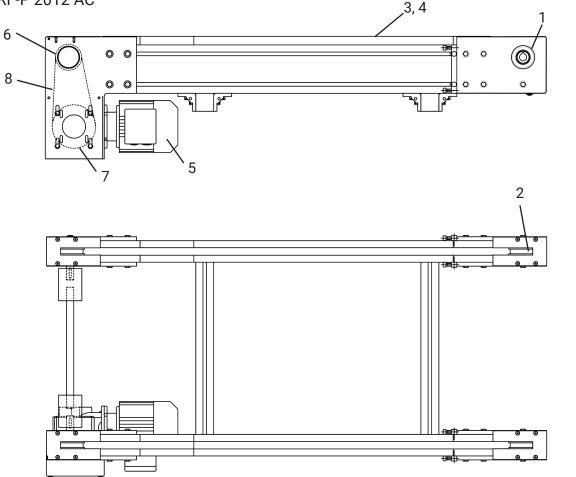
NOTE: For adjusting the chain tensioning, please see the related section for details. When cleaning the chain, avoid any harsh chemicals or detergents.

NOTE: Not all items shown in all views for clarity.



7 WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

7.3 SRF-P 2012 AC



7 WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

7.3 SRF-P 2012 AC (Cont.)

Maintenance Work for SRF-P 2012 AC

Position	Description	Action*	Interval in Hours (Months)	Lubricant
1	Roller Bearing	1	1,000 Hours (Max. 6 Months)	
2	Drive/Idler Sprocket	I, C	500 Hours (Max. 3 Months)	
		I, C	500 Hours (Max. 3 Months)	
3	Wear Strip	R	If wear visible	
	Chain	I, C, L, T	500 Hours (Max. 3 Months)	SAE20-SAE50
4		R	If chain stretch is greater than 3%	
5	Gearmotor	I, C	Service & maintenance per manufacturer's documentation	
6&7	Drive Train Sprockets	I, C	500 Hours (Max. 3 Months)	SAE20-SAE50
	Drive Train Chain	I, C, T, L	500 Hours (Max. 3 Months)	SAE20-SAE50
8		R	If chain stretch is greater than 3%	

* LEGEND: Inspect, Replace, Tension, Clean, Lubricate (grease).

Position	Description	Part Number
1	Roller Bearing 6007-2RS1	K101000443
2	Drive/Idler Sprocket	58.12.0046
3	Wear Strip	See Page 11
4	Chain	See Page 10
5	Gearmotor	Inquire with mk North America
6	Sprocket at Drive Roll	Inquire with mk North America
7	Sprocket at Gearmotor	Inquire with mk North America
8	Chain & Connecting Link	Inquire with mk North America

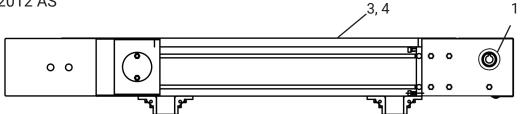
NOTE: For adjusting the chain tensioning, please see the related section for details. When cleaning the chain, avoid any harsh chemicals or detergents.

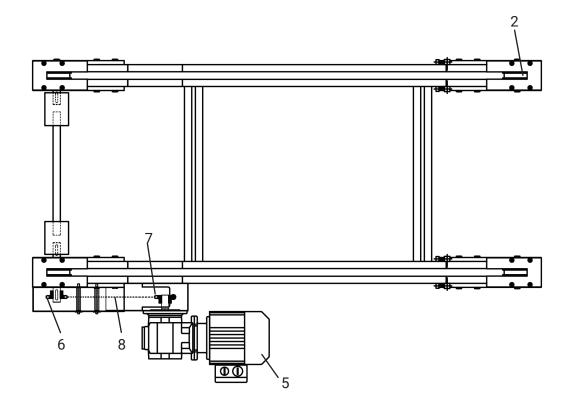
NOTE: Not all items shown in all views for clarity.



WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

7.4 SRF-P 2012 AS





WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

SRF-P 2012 AS (Cont.) 7.4

Maintenance Work for SRF-P 2012 AS

Position	Description	Action*	Interval in Hours (Months)	Lubricant
1	Roller Bearing	I	1,000 Hours (Max. 6 Months)	
2	Drive/Idler Sprocket	I, C	500 Hours (Max. 3 Months)	
		I, C	500 Hours (Max. 3 Months)	
3	Wear Strip	R	If wear visible	
	Chain	I, C, L, T	500 Hours (Max. 3 Months)	SAE20-SAE50
4		R	If chain stretch is greater than 3%	
5	Gearmotor	I, C	Service & maintenance per manufacturer's documentation	
6&7	Drive Train Sprockets	I, C	500 Hours (Max. 3 Months)	SAE20-SAE50
	Drive Train Chain	I, C, T, L	500 Hours (Max. 3 Months)	SAE20-SAE50
8		R	If chain stretch is greater than 3%	

* LEGEND: Inspect, Replace, Tension, Clean, Lubricate (grease).

Position	Description	Part Number
1	Roller Bearing 6007-2RS1	K101000443
2	Drive/Idler Sprocket	58.14.0004
3	Wear Strip	See Page 11
4	Chain	See Page 10
5	Gearmotor	Inquire with mk North America
6	Sprocket at Drive Roll	Inquire with mk North America
7	Sprocket at Gearmotor	Inquire with mk North America
8	Chain & Connecting Link	Inquire with mk North America

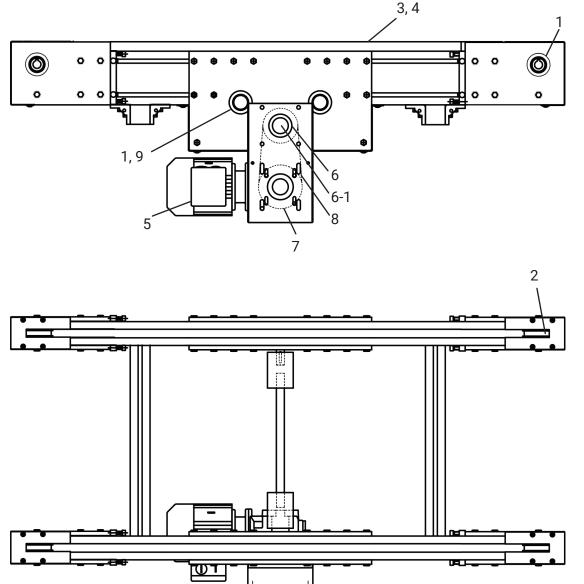
NOTE: For adjusting the chain tensioning, please see the related section for details. When cleaning the chain, avoid any harsh chemicals or detergents.

NOTE: Not all items shown in all views for clarity.



WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

7.5 SRF-P 2012 BC



WEAR ITEMS & MAINTENANCE FOR SPECIFIC DRIVE OPTIONS (CONT.)

SRF-P 2012 BC (Cont.) 7.5

Maintenance Work for SRF-P 2012 BC

Position	Description	Action*	Interval in Hours (Months)	Lubricant
1	Roller Bearing	I	1,000 Hours (Max. 6 Months)	
2	Drive/Idler Sprocket	I, C	500 Hours (Max. 3 Months)	
		I, C	500 Hours (Max. 3 Months)	
3	Wear Strip	R	If wear visible	
	Chain	I, C, L, T	500 Hours (Max. 3 Months)	SAE20-SAE50
4		R	If chain stretch is greater than 3%	
5	Gearmotor	I, C	Service & maintenance per manufacturer's documentation	
6&7	Drive Train Sprockets	I, C	500 Hours (Max. 3 Months)	SAE20-SAE50
		I, C, T, L	500 Hours (Max. 3 Months)	SAE20-SAE50
8	Drive Train Chain	R	If chain stretch is greater than 3%	
9	Nip Drum, 2012 BC	I, C	500 Hours (Max. 3 Months)	

* LEGEND: Inspect, Replace, Tension, Clean, Lubricate (grease).

Position	Description	Part Number
1	Roller Bearing 6007-2RS1	K101000443
2	Drive/Idler Sprocket	58.14.0004
3	Wear Strip	See Page 11
4	Chain	See Page 10
5	Gearmotor	Inquire with mk North America
6	Sprocket at Drive Roll	Inquire with mk North America
7	Sprocket at Gearmotor	Inquire with mk North America
8	Chain & Connecting Link	Inquire with mk North America
9	Nip Drum, 2012 BC	83.01.0023

NOTE: For adjusting the chain tensioning, please see the related section for details. When cleaning the chain, avoid any harsh chemicals or detergents.

NOTE: Not all items shown in all views for clarity.



8 **CONVEYOR CHAIN MAINTENANCE - TENSIONING & TRACKING** 8 Standard Idler 8.1 All work to be performed by qualified personnel only. 8.1 Standard Idler 23 Chain Tensioning General Remarks: Caution! Chains may need to be tracked due to shifting during shipping. Behind the roll holder is a wear indicator with the colors green, • Prior to delivery of the mk conveyor, the chain was tensioned and tracked at the factory. yellow and red. • Chain tracking should only be done at the idler end. · Avoid over tensioning the chain, increase slack in chain is necessary. - Green: Tensioning of the chain only (do not remove any links). - Yellow: Shorten chain by removing 2 links – as long as the Use extreme caution of all pinch, pull and other hazards. maximum chain stretch of 3% has not yet been reached. - Red: Chain must be shortened by the removal of 2 links, as long as the maximum chain stretch of 3% has not yet been reached.

The maximum allowable chain stretch over time is 3%. Once the 3% limit has been reached the chain must be replaced.



CONVEYOR CHAIN MAINTENANCE - TENSIONING & TRACKING (CONT.)

All work to be performed by qualified personnel only.

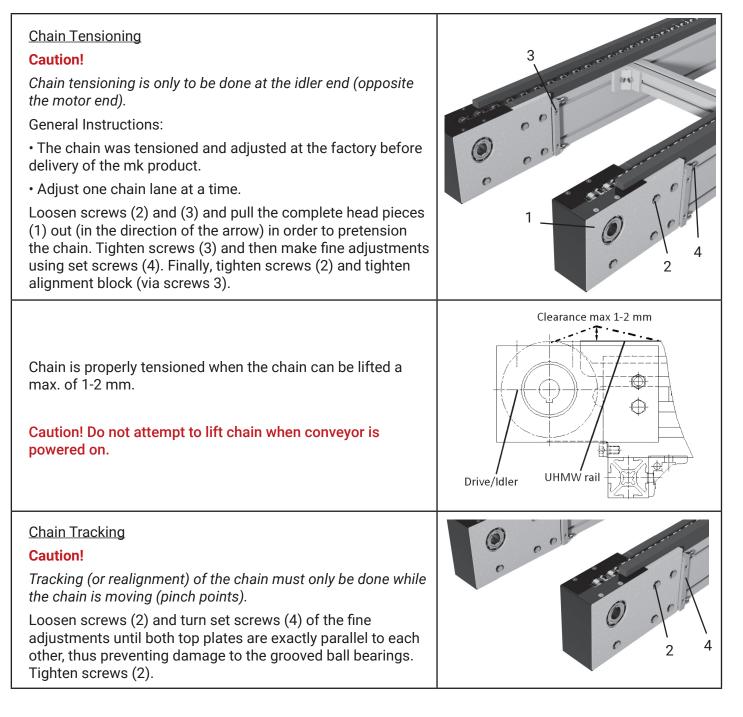


<u>CONVEYOR CHAIN MAINTENANCE - TENSIONING & TRACKING (CONT.)</u> 8

8.1 Standard Idler



All work to be performed by qualified personnel only.



CONVEYOR CHAIN MAINTENANCE - CHAIN REPLACEMENT



All work to be performed by qualified personnel only. Conveyor power <u>must</u> be disconnected before replacing the chain.

Standard Idler 9.1

General Remarks:

- this to follow.
- · Any interfering parts must be removed instructions to follow.
- · Any auxiliary parts that interfere must be removed. This includes support pieces.
- One side of the conveyor must be free and clear of all interferences. This MUST be the side with the black cover strip.
- Reassemble in reverse order.
- Replacement chains must be tracked and tensioned prior to use. (See Section 8)



26

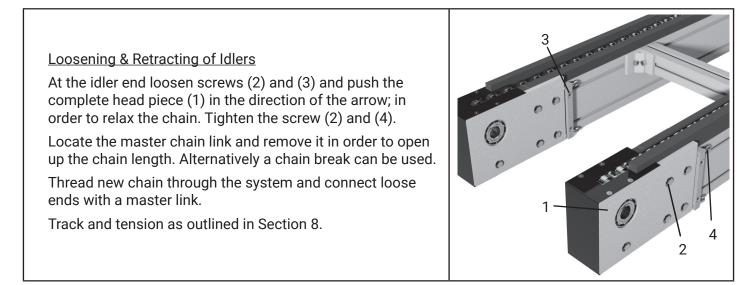
• Prior to replacing the chain, the tail assembly must be completely loosened and retracted - instructions for

9 **CONVEYOR CHAIN MAINTENANCE - CHAIN REPLACEMENT**

9.1 Standard Idler



All work to be performed by qualified personnel only.



CONVEYOR MAINTENANCE - TENSIONING & GREASING OF DRIVE CHAIN 10



All work to be performed by qualified personnel only. Conveyor power <u>must</u> be disconnected before performing maintenance.

THIS SECTION DOES NOT APPLY TO THE DRIVE VERSION AA. Do NOT lubricate timing belt and pulley drive trains.

10.1	SRF-P 2012 AC
10.2	SRF-P 2012 AS
10.3	SRF-P 2012 BC

Additional Notes for SRF-P 2012 BC:

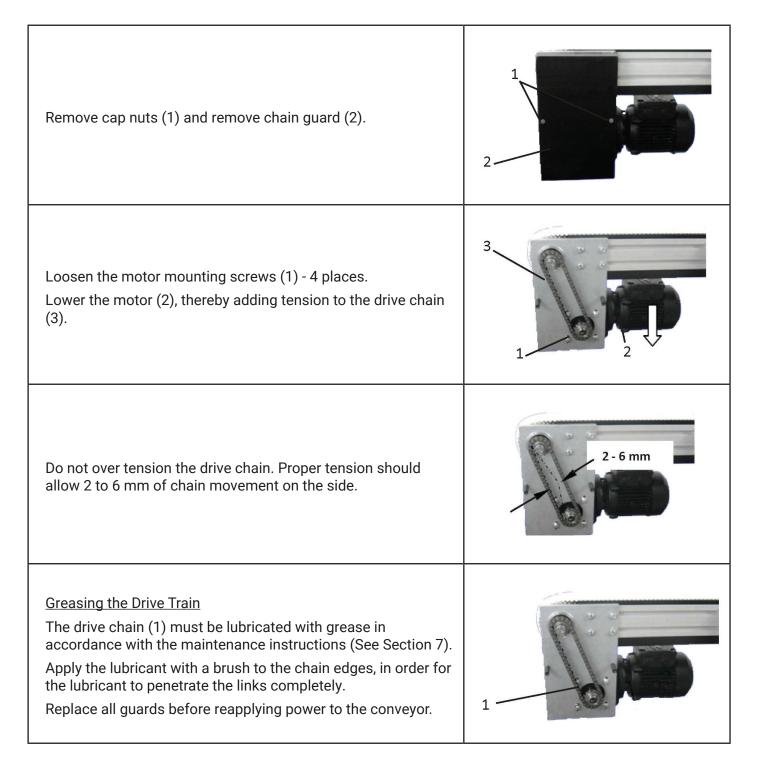
Relax the nip drums (refer to item 9 from Section 7) in their location. Once the side of the conveyor is exposed; the drive assembly needs to be disassembled in order to thread out the old chain. Do this on the same side as the closure strip (3) from above. Thread chain back through drive assembly and then over idlers.



28 29 30

CONVEYOR MAINTENANCE - TENSIONING & GREASING OF DRIVE CHAIN 10

10.1 Tensioning & Greasing of the Drive Chain - SRF-P 2012 AC



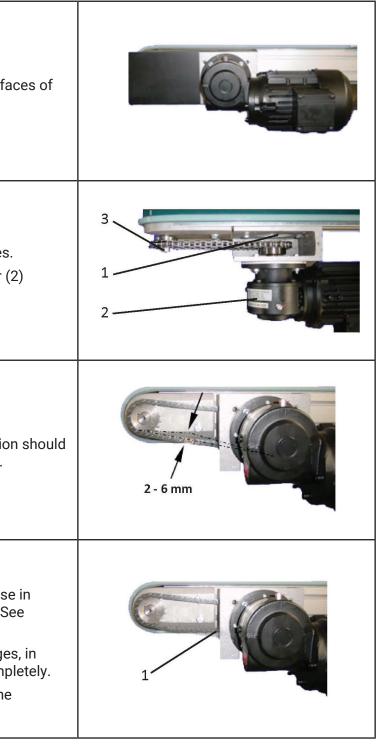
<u>CONVEYOR MAINTENANCE - TENSIONING & GREASING OF DRIVE CHAIN (CONT.)</u> 10

10.2 Tensioning & Greasing of the Drive Chain - SRF-P 2012 AS

Loosen bolts/screws on the upper and front surfa the drive train and remove cover.
Loosen the motor mounting screws (1) - 4 places. Tighten the drive chain (3) by pushing the motor (2 downwards.
Do not over tension the drive chain. Proper tensior allow 2 to 6 mm of chain movement on the side.
<u>Greasing the Drive Train</u> The drive chain (1) must be lubricated with grease accordance with the maintenance instructions (Se Section 7). Apply the lubricant with a brush to the chain edges order for the lubricant to penetrate the links comp

Replace all guards before reapplying power to the conveyor.





CONVEYOR MAINTENANCE - TENSIONING & GREASING OF DRIVE CHAIN (CONT.) 10

10.3 Tensioning & Greasing of the Drive Chain - SRF-P 2012 BC

Remove the drive train cover bolts (1) (various places) and remove the drive train cover (2).	
Loosen the motor mounting screws (1) - 4 places. Slide the motor (2) in the slots provided in the direction of the arrow, thereby adding tension to the drive chain (3).	
Do not over tension the drive chain. Proper tension should allow 2 to 6 mm of chain movement on the side.	2 - 6 mm
<u>Greasing the Drive Train</u> The drive chain (1) must be lubricated with grease in accordance with the maintenance instructions (See Section 7). Apply the lubricant with a brush to the chain edges, in order for the lubricant to penetrate the links completely. Replace all guards before reapplying power to the conveyor.	

NOTES & CONTACT INFORMATION <u>11</u>



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(860) 769-5500



Technical Documentation SRF-P 2012 Accumulating Roller Chain Conveyor

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