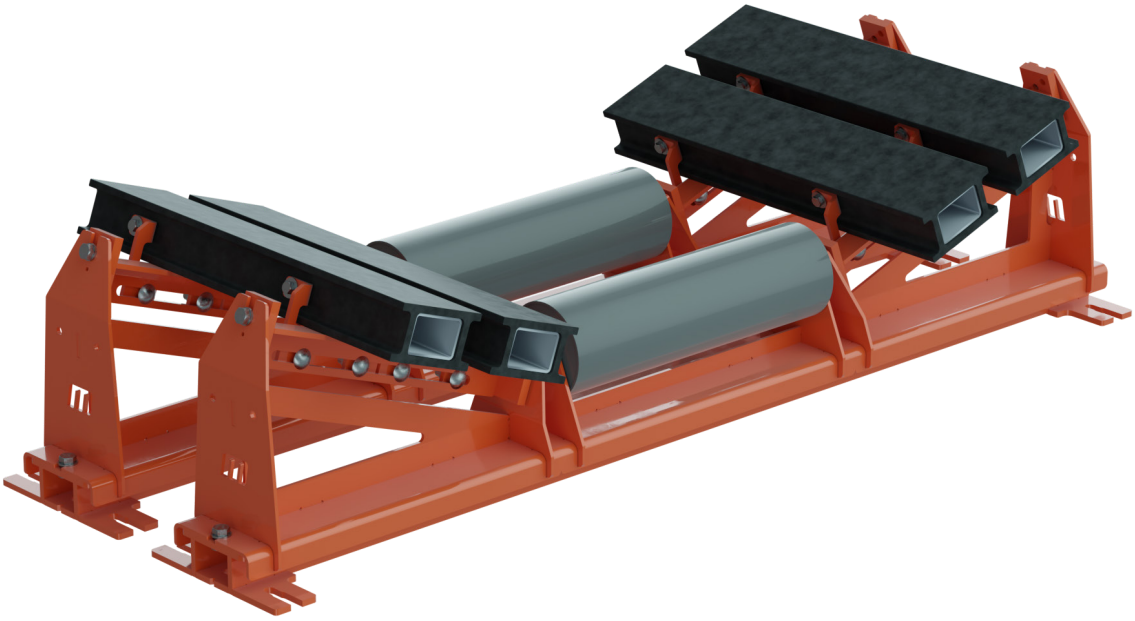
Martin®
Trac-Mount™
Slider Cradle

Go to Martin® Trac-Mount™ Slider Cradle web page.



Operator's Manual
M4205

Important

MARTIN ENGINEERING HEREBY DISCLAIMS ANY LIABILITY FOR: DAMAGE DUE TO CONTAMINATION OF THE MATERIAL; USER'S FAILURE TO INSPECT, MAINTAIN AND TAKE REASONABLE CARE OF THE EQUIPMENT; INJURIES OR DAMAGE RESULTING FROM USE OR APPLICATION OF THIS PRODUCT CONTRARY TO INSTRUCTIONS AND SPECIFICATIONS CONTAINED HEREIN. MARTIN ENGINEERING'S LIABILITY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF EQUIPMENT SHOWN TO BE DEFECTIVE.

Observe all safety rules given herein along with owner and Government standards and regulations. Know and understand lockout/tagout procedures as defined by American National Standards Institute (ANSI) ANSI/ASSP z244.1-2024, *The Control of Hazardous Energy Lockout, Tagout And Alternative Methods* and Occupational Safety and Health Administration (OSHA) Federal Register, Title 29 Subtitle B Chapter XVII Subpart J 1910.147, *Control of Hazardous Energy Source (Lockout/Tagout);* Final Rule.

The following symbols may be used in this manual:

⚠ DANGER

Danger: Immediate hazards that will result in severe personal injury or death.

⚠ WARNING

Warning: Hazards or unsafe practices that could result in personal injury.

⚠ CAUTION

Caution: Hazards or unsafe practices that could result in product or property damages.

IMPORTANT

Important: Instructions that must be followed to ensure proper installation/operation of equipment.

NOTE

Note: General statements to assist the reader.

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Introduction

General

The Martin® Trac-Mount™ Slider Cradle utilizes sliding frames on a stationary base to hold conveyor belts in a stable, sag-free position to allow effective sealing and easy installation and service. By minimizing belt vibration and sag, the Martin® Trac-Mount™ Slider Cradle reduces escaping material and risk of damage to the belt and conveyor accessories. Martin® Trac-Mount™ Slider Cradles are available in 20, 35, and 45-degree troughing angles. Martin® Slider Bars provide a low-friction, self-lubricating surface for conveyor belts to skim over without heat buildup or undue wear on the belt surface or bars (see specifications in Table I). Slider bars are available in UHMW, 304 stainless steel, or 316 stainless steel material options. Single and double-bar configurations are available. The Martin® Trac-Mount™ Slider Cradle is not intended to absorb impact.

Single-Bar Martin® Trac-Mount™ Slider Cradles are suitable for light to moderate duty belts from 18 - 42 in. (400 - 1200 mm) wide with belt speeds less than 500 fpm (2.5 m/s).

Double-bar Martin® Trac-Mount™ Slider Cradles are recommended for moderate to severe duty belts from 48 - 72 in. (1200 - 2000 mm) wide with belt speeds greater than 500 fpm (2.5 m/s).

The Martin® Trac-Mount™ Slider Cradle conforms to CEMA Standard No. 502-2016 *Bulk Material Conveyor Troughing and Return Specifications*.

Table I. Martin® Slider Bar Specifications

Bar construction	UHMW polyethylene	Stainless Steel
Bar dimensions	2.9 in. (72 mm) high 5.0 in. (127 mm) wide 48.0 in. (1220 mm) long	1.7 in. (43 mm) high 4.0 in. (99 mm) wide 48.0 in. (1212) long
Coefficient of friction	0.5	0.6
Specific gravity	0.94	.286 lb/in^3
Tensile strength	6800 psi at 73°F (23°C) (46.9 MPa)	85,000 psi (586 MPa)
Hardness	62 (Shore D)	N/A
Service temperature	-20 to 140°F (-29 to 60°C)	N/A

References

The following documents are referenced in this manual:

- American National Standards Institute ANSI/ASSP Z244.1-2024, *The Control of Hazardous Energy Lockout, Tagout and Alternative Methods* American National Standards Institute, Inc., 1180 6th Ave, 10th Floor New York, NY 10036.
- Federal Register, Title 29 Subtitle B Chapter XVII Subpart J 1910.147, *Control of Hazardous Energy Source (Lockout/Tagout); Final Rule*, Department of Labor, Occupational Safety and Health Administration (OSHA), 32nd Floor, Room 3244, 230 South Dearborn Street, Chciago, IL 60604.

Materials required

Only standard hand tools are required to install and service this equipment.

Safety

All safety rules defined in the above documents and all owner/employer safety rules must be strictly followed when working on the Martin® Trac-Mount™ Slider Cradle.

⚠ DANGER

Do not touch or go near the conveyor belt or conveyor accessories when the belt is running. Your body or clothing can get caught and you can be pulled into the conveyor, resulting in severe injury or death.

⚠ DANGER

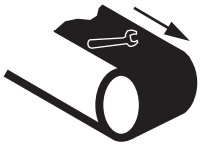
Before installing, servicing, or adjusting the conveyor equipment, turn off and lockout / tagout / blockout / testout all energy sources to the conveyor and conveyor accessories according to ANSI standards or country specific safety standards (DIN, ISO, etc.). Failure to do so could result in serious injury or death.

⚠ DANGER

If this equipment will be installed in an enclosed area, test the gas level or dust content before using a cutting torch or welding. Using a torch or welding in an area with gas or dust may cause an explosion resulting in serious injury or death. Follow local and customer confined space procedures.

⚠WARNING

Before using a cutting torch or welding the chute wall, cover the conveyor belt with a fire retardant cover. Failure to do so can allow the belt to catch fire. Follow local and customer fire watch procedures.



⚠WARNING

Remove all tools from the installation area and conveyor belt before turning on the conveyor. Failure to do so can cause serious injury to personnel or damage to the belt and conveyor.

⚠WARNING

Martin® Trac-Mount™ Slider Cradle and related hardware can be heavy and may require two people to lift. Attempting to lift the conveyor equipment without assistance could result in injury.

Before Installing Slider Cradle

IMPORTANT

The delivery service is responsible for damage occurring in transit. Martin Engineering CANNOT enter claims from damages. Contact your transportation agent for more information.

1. Inspect shipping container for damage. Report damage to delivery service immediately and fill out delivery service's claim form. Keep any damaged goods subject to examination.
2. Remove Martin® Trac-Mount™ Slider Cradle from shipping container. Equipment in container should include the following:
   - Martin® Trac-Mount™ Slider Cradle Single-Bar or Double-Bar Cradle Assembly.
   - Two Conveyor Products Warning Labels, P/N 23395.
3. If anything is missing contact Martin Engineering or a representative.
4. Make sure belt is centered on conveyor.

⚠ DANGER

Before installing, servicing, or adjusting conveyor equipment, turn off and lockout / tagout / blockout / testout all energy sources to the conveyor and conveyor accessories according to ANSI standards or country specific safety standards (DIN, ISO, etc.). Failure to do so could result in serious injury or death.

5. Turn off and lockout / tagout / blockout / testout energy source according to ANSI standards or country specific safety standards (DIN, ISO, etc.) (see "References").

⚠ WARNING

If this equipment will be installed in an enclosed area, test the gas level or dust content before using a cutting torch or welding. Using a torch or welding in an area with gas or dust may cause an explosion resulting in serious injury or death. Follow local confined space procedures.

6. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover. Follow local fire watch procedures.
7. If not already present, install an impact idler a minimum of 1.2 in. (31 mm) ahead of and a minimum of 1.2 in. (31 mm) slider-bar cradle's location. Make sure idlers are straight and centered under conveyor belt.
8. Remove any unnecessary idlers.

Installing Slider Cradle

IMPORTANT

Read entire section before beginning work.

NOTE

Refer to *Appendix* for mounting dimensions of Martin® Trac-Mount™ Slider Cradle used with 5 and 6 inch idlers.

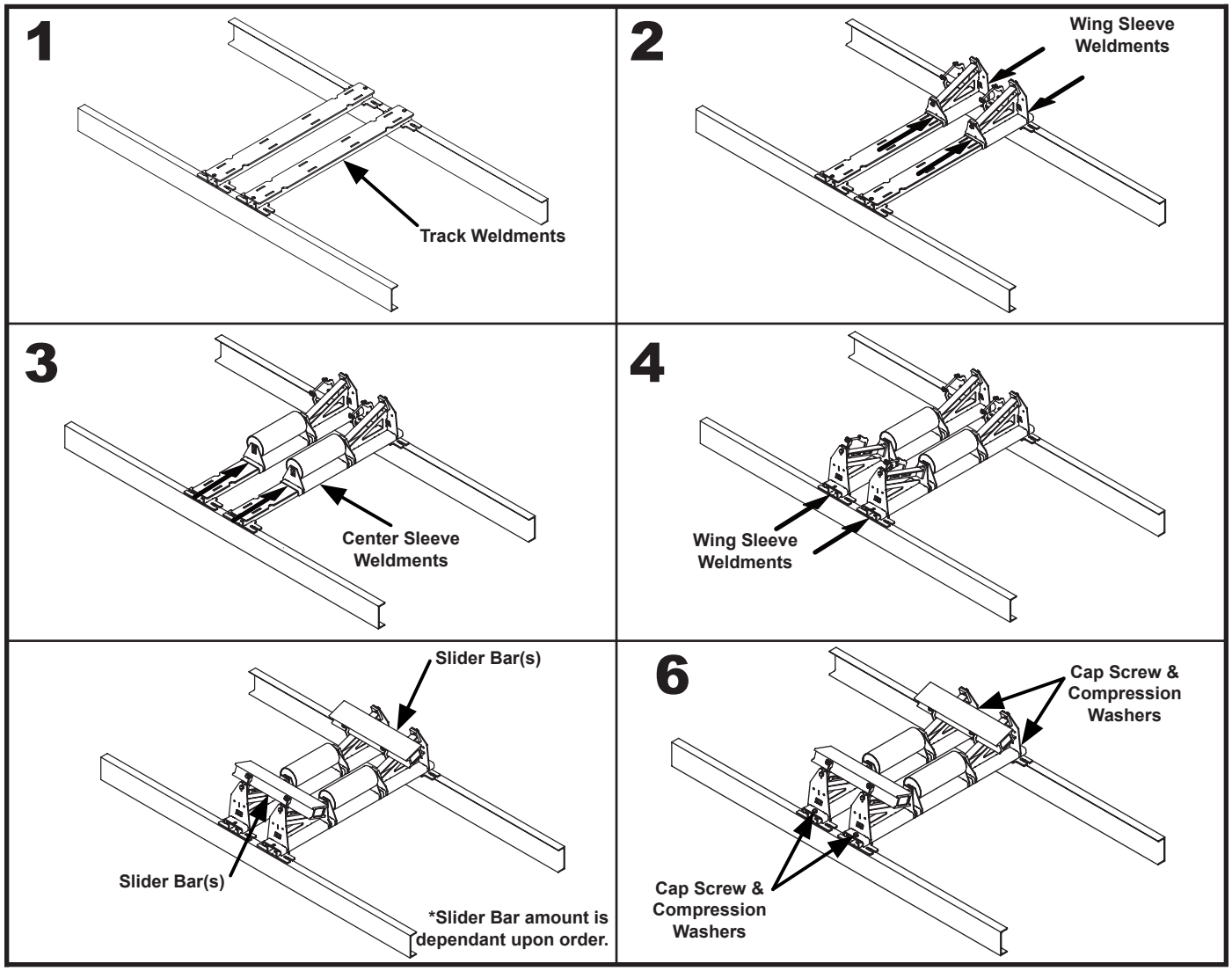


Figure 1. Installing Slider Cradle (Single-Bar Shown)

To install the Martin® Trac-Mount™ Slider Cradle, follow the procedures corresponding to the following steps:

1. Locate slider cradle between idlers.
2. Install sub-assemblies as applicable.
3. Tighten all bolts.

IMPORTANT

Make sure all idlers in the transfer point are identical (same make and CEMA classification) to ensure proper fit.

1. If necessary, remove any idlers in transfer point where Martin® Trac-Mount™ Slider Cradle are to be located.

IMPORTANT

The Martin® Trac-Mount™ Slider Cradle requires a minimum of 26.4 in. (670 mm) between idler faces [for 24 in. (610 mm) slider bar configuration] or 50.4 in. (1280 mm) between idler faces [for 48 in. (1219 mm) slider bar configuration] (Refer to Figure 4.)

2. Find center point between idlers and mark point on both stringers.
3. Measure 6 in. (152 mm) [for 24 in. (610 mm) slider bar configuration] or 12 in. (305 mm) [for 48 in. (1219 mm) slider bar configuration] from center point in both directions and mark points on both stringers. (Refer to *Appendix* for example).

⚠WARNING

Martin® Trac-Mount™ Slider Cradle and related hardware can be heavy and may require two people to lift. Attempting to lift the conveyor equipment without assistance could result in injury.

4. (See Figure 1, Step 1). Attach track weldments to stringers using supplied hardware placing feet of the support on each conveyor stringer on the reference mark from step 3. Make sure track weldment is 90° to belt travel.
5. Place the second track weldment across the conveyor stringers as in step 4. Space track weldments approximately 12 in. (305 mm) apart [for 24 in. (610 mm) slider bar configuration] or 24 in. (610 mm) apart [for 48 in. (1219 mm) slider bar configuration].
6. Slide sleeve weldments onto track weldment one at a time starting with the wing sleeve weldments, making sure the the tall side of the wing assembly is on the outside edge. Install the center sleeve weldment in the center then secure wing sleeve weldments to track weldment with cap screws and compression washers on each end of track weldment. Center support rolls are standard with double-bar configurations and optional in single-bar configurations.

7. Install slider bar(s), one (or two for double-bar configuration) on each side of the conveyor, making sure holes line up, and fasten down with bolts provided.
8. (Refer to Figure 2). Position the slider bars so that they are supporting the conveyor belt beneath the chute wall and skirting, if any.

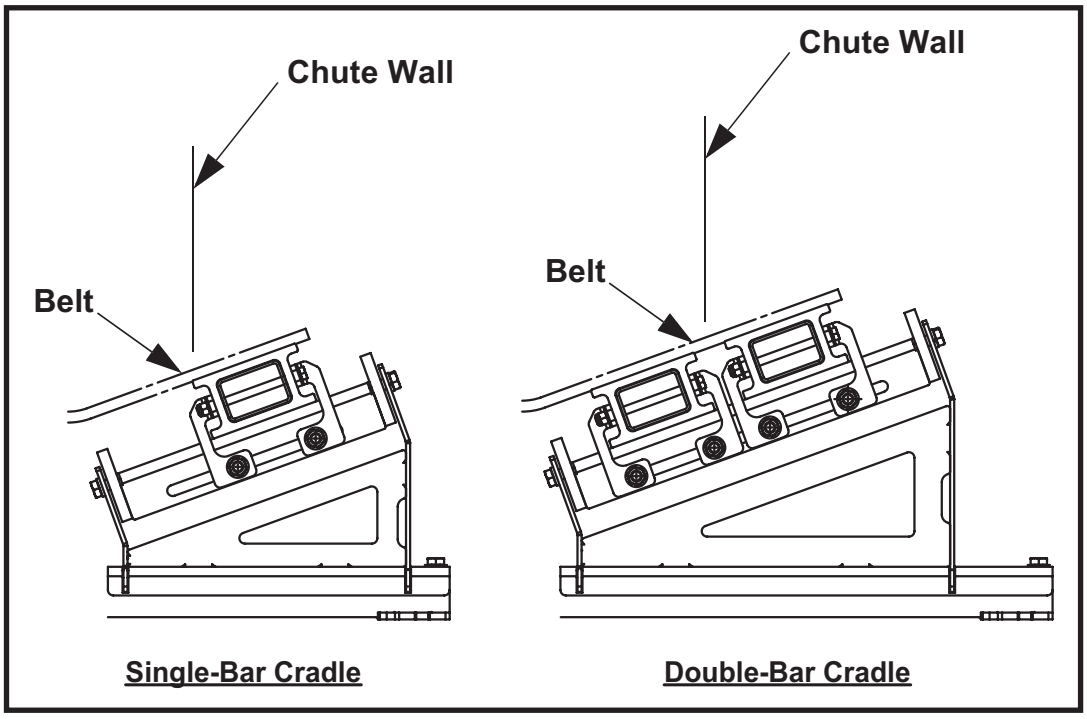


Figure 2. Location of Slider Bar to Chute Wall

9. (Refer to Figure 3) Choose proper end plate hole location for screw and washer based on the roll diameter.

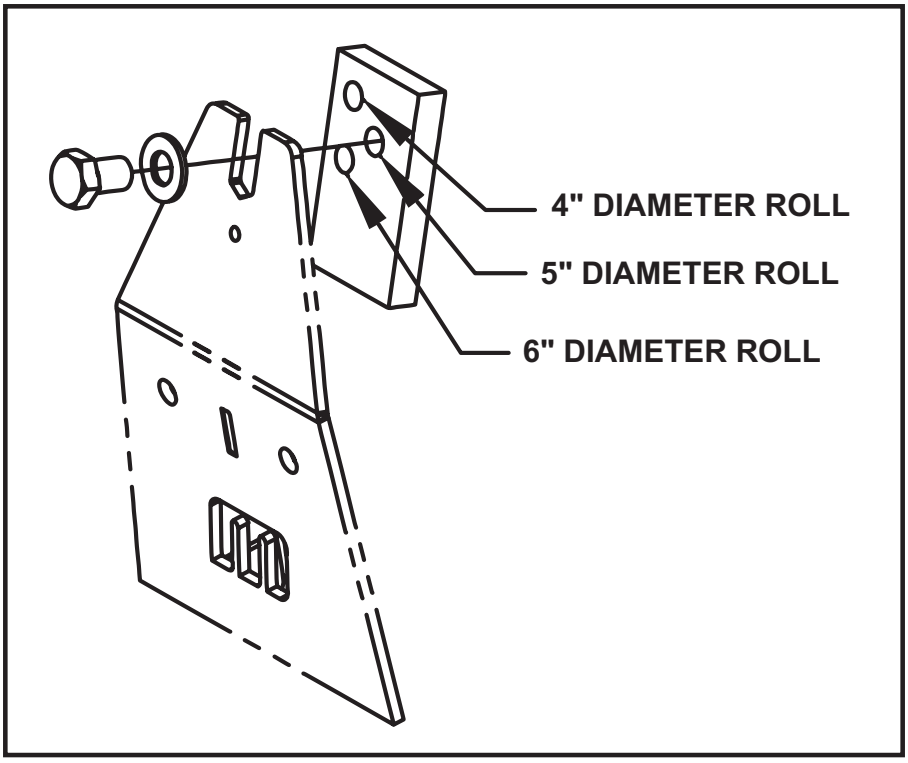


Figure 3. Location of Screw & Washer to End Plate

10. Install idlers a minimum of 1.2 in. (31 mm) before and a minimum of 1.2 in. (31 mm) after slider cradle. Idlers should be installed approximately 26.4 in. (670 mm) apart [for 24 in. (610 mm) slider bar configuration] or approximately 50.4 in. (1280 mm) [for 48 in. (1219 mm) slider bar configuration].

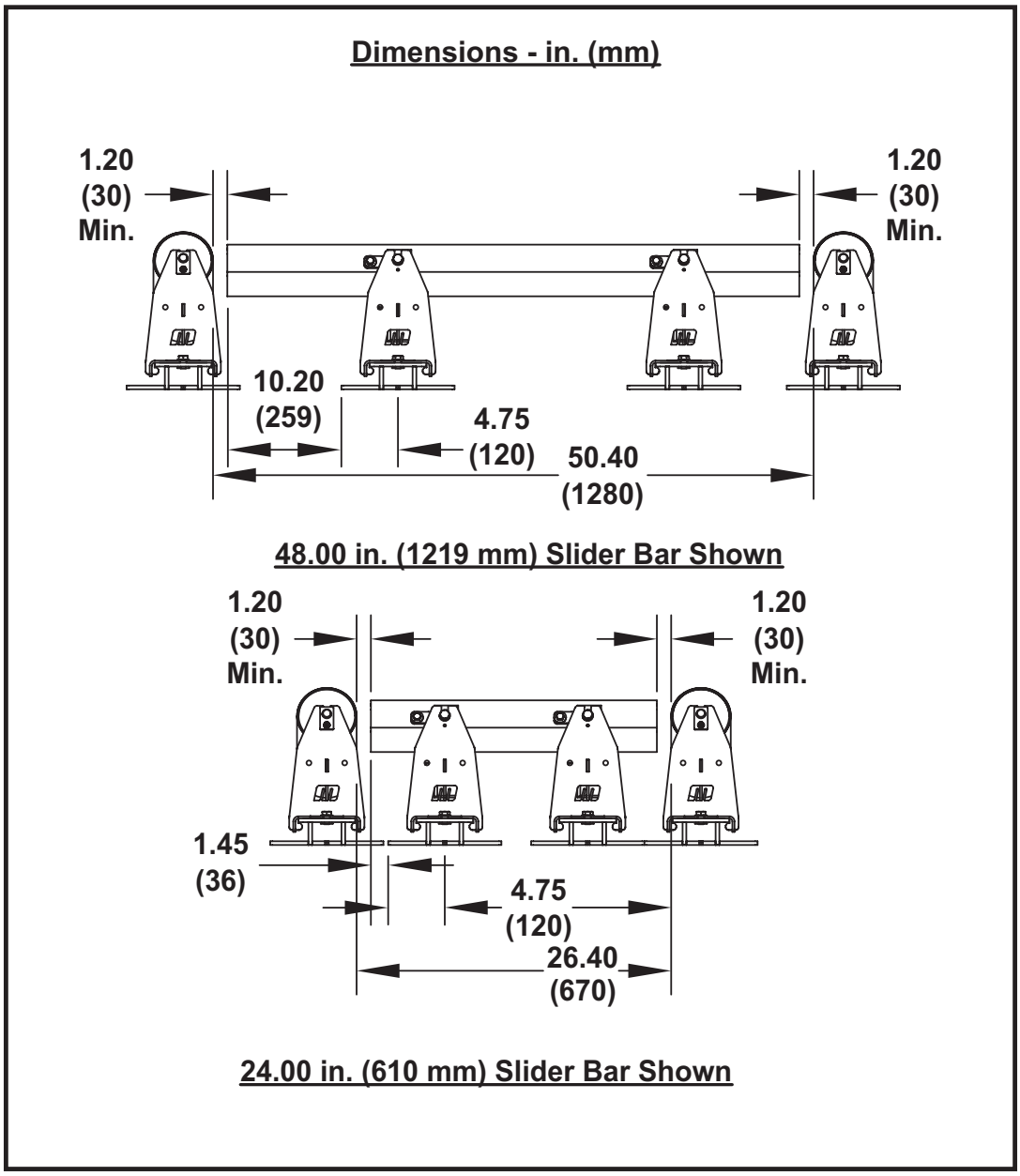


Figure 4. Location of Slider Cradle to Idlers

11. Tighten all bolts.

NOTE

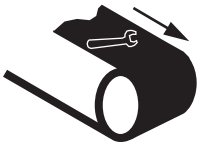
To ensure proper support, slider bars must be equal dimension on all sides.

After Installing Slider Cradle

IMPORTANT

Read entire section before beginning work.

1. Thoroughly wipe outside chute walls clean above slider cradle on both sides of chute.
2. Place Conveyor Products Warning Label (P/N 23395) on each chute wall visible to belt operator.
3. Additional safety labels are available from CEMA. For more information regarding CEMA safety labels visit www.cemanet.org.



⚠WARNING

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

4. Remove all tools and fire-retardant cover from installation area and conveyor belt.

⚠ DANGER

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

5. Turn on conveyor belt.

⚠ DANGER

Before adjusting conveyor equipment, turn off and lockout / tagout / blockout / testout all energy sources to the conveyor and conveyor accessories according to ANSI standards or country specific safety standards (DIN, ISO, etc.). Failure to do so could result in serious injury or death.

6. After one hour of operation, turn off and lockout / tagout / blockout / testout energy source according to ANSI standards or country specific safety standards (DIN, ISO, etc.) (see “References”).
7. Inspect idlers and make sure all fasteners are tight. Tighten if necessary.
8. Inspect slider cradle for wear. (A small amount of break-in wear may be found. This will stop once bars wear to conveyor belt contour.)
9. If excessive wear, uneven wear, or some other problem exists, see “Troubleshooting/Installation Checklist.”

Maintenance

IMPORTANT

Read entire section before beginning work.

⚠ DANGER

Before installing, servicing, or adjusting conveyor equipment, turn off and lockout / tagout / blockout / testout all energy sources to the conveyor and conveyor accessories according to ANSI standards or country specific safety standards (DIN, ISO, etc.). Failure to do so could result in serious injury or death.

1. Turn off and lockout / tagout / blockout / testout conveyor equipment according to ANSI standards or country specific safety standards (DIN, ISO, etc.) (see "References").
2. Make sure all fasteners are tight. Tighten if necessary.
3. Check slider bars for wear. If worn do the following:
   (1) Remove stop nut B and cap scew C on both sub-assemblies.
   (2) Loosen carriage bolt E and flip bar lock D down.
   (3) Remove bar and turn upside down, replace bar if stainless steel.
   (4) Reinstall. Tighten all bolts, making sure holes line up.

Turning bars over

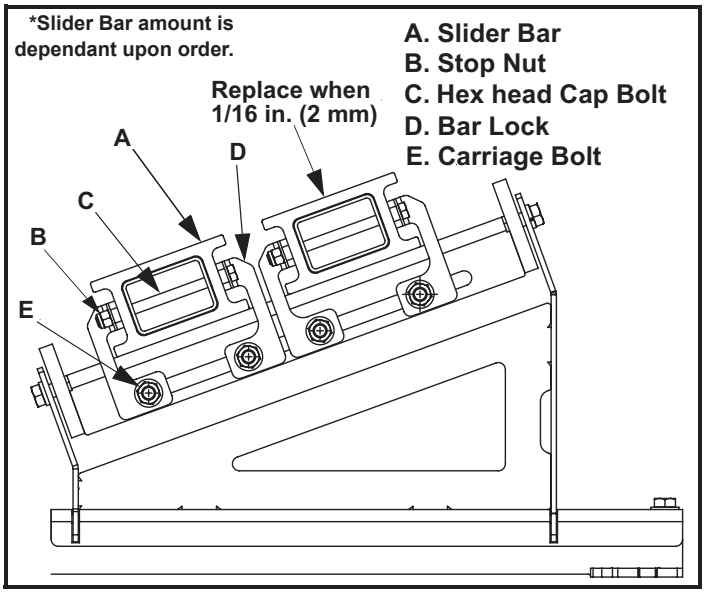


Figure 5. Replacing Slider Bars (Double-Bar Shown)

⚠WARNING

Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

4. Remove all tools from maintenance area.

⚠ DANGER

Do not touch or go near conveyor belt or conveyor accessories when conveyor belt is running. Body or clothing can get caught and pull body into conveyor belt, causing severe injury or death.

5. Turn on conveyor belt.

Troubleshooting/Installation Checklist

Troubleshooting

If you are experiencing problems with Martin® Trac-Mount™ Slider Cradle, see below.

Symptom	Corrective Action
High slider bar wear	Bar is above idler height or is not parallel to belt travel. Adjust bar position.
Uneven slider bar wear	Bar is not parallel to belt travel or is under impact. Inspect loading area and divert impact or relocate cradle.

Installation checklist

If after taking the corrective actions suggested under "*Troubleshooting*" you are still experiencing problems, check for the following:

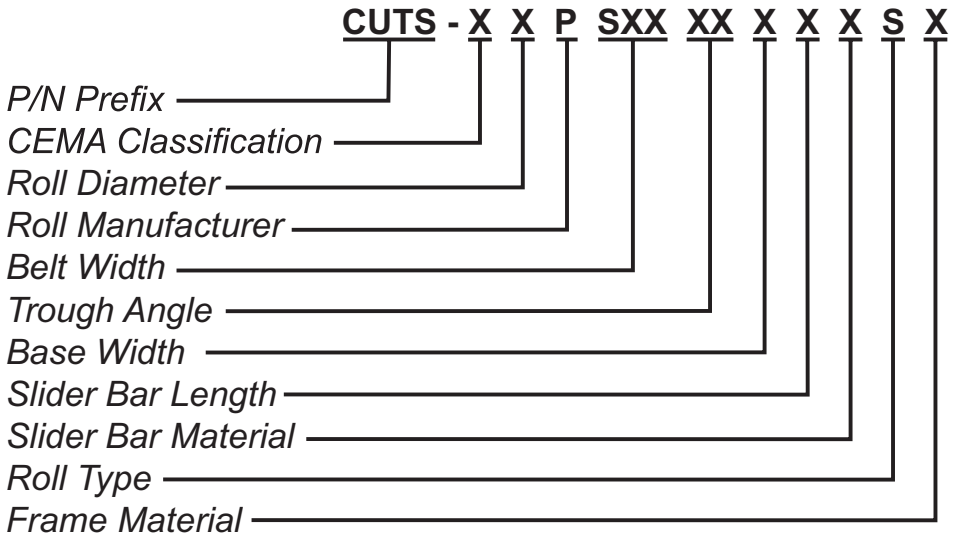
Installation Checklist
• Track weldment centers are 7.4 in. (188 mm) from center to idlers minimum and 12 in. (305 mm) apart [for 24 in. (610 mm) slider bar configuration] or 16.2 in. (411 mm) from center to idlers minimum and 24 in. (610 mm) apart [for 48 in. (1219 mm) slider bar configuration] (Refer to Figure 4).
• Slider bars contact belt and follow contour of belt.
• Ends of slider bars are a minimum of 1.2 in. (31 mm) from face of idlers.

Part Numbers

This section provides product names and corresponding part numbers for Martin® Trac-Mount™ Slider Cradle. Please reference part numbers when ordering parts:

Martin®	**Martin® Trac-Mount™ Slider Cradle,**
Trac-Mount™	P/N CUTSXXPSXXXXXXXSX
Slider Cradle	

NOMENCLATURE



CEMA CLASSIFICATION:
C or **D**

ROLL DIAMETER:
5 or **6** in.

ROLL MANUFACTURER:
P: Precision Pulley and Idler

BELT WIDTH:
SXX: EX. S48 = 48” BELT
CEMA C: 18—60 in.
CEMA D: 24—72 in.

TROUGH ANGLE:
20: 20 Degrees
35: 35 Degrees
45: 45 Degrees

BASE WIDTH:
S: Standard Base (Belt Width + 12 in.)
W: Wide Base (Belt Width + 18 in.)

SLIDER BAR LENGTH:
2: 24.00 in.
4: 48.00 in.

SLIDER BAR MATERIAL:
U: UHMW Slider Bars
C: 304 Stainless Steel
S: 316 Stainless Steel

ROLL TYPE:
S: Steel Can

FRAME MATERIAL:
P: Mild Steel
C: 304 Stainless Steel
S: 316 Stainless Steel

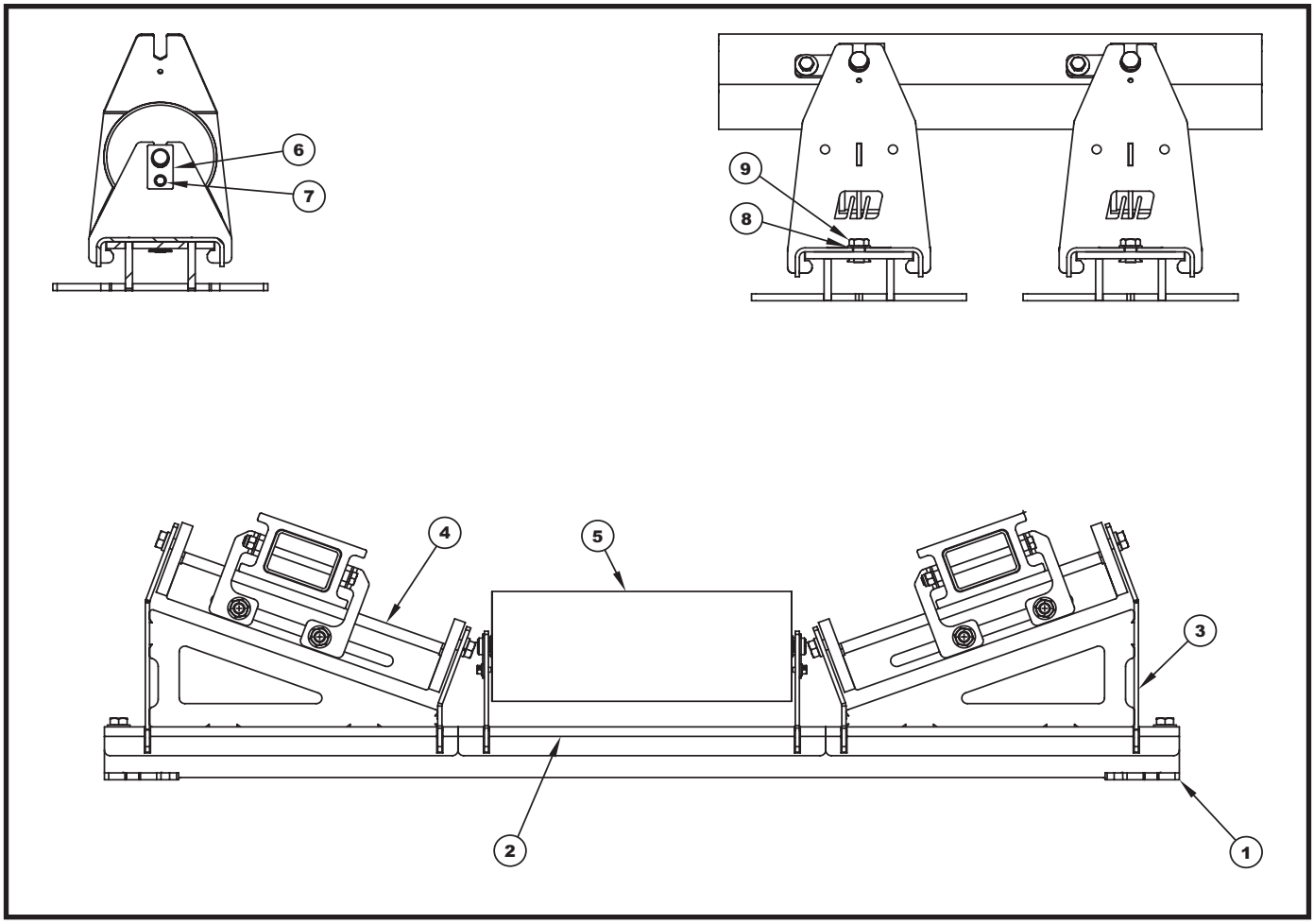


Figure 6. CUTSCXPSXXXXXXXSX Martin® Trac-Mount™ Slider Cradle (CEMA C Class)

Item	Qty.	Description	Part Number
1	2	Track Weldment	TMI2-TW-XXXXX
2	2	Center Sleeve Weldment	TMI2-CW-XXXXX
3	4	Wing Sleeve Weldment	TMI2-WW-XXXXXXXX
4	2	Idler Conversion Kit	CUTSP4SXXXXXX
5	2	Roll	TMIRCX-XXSP
6	4	Tie Tab	Table II
7	4	Screw HHC 1/4-20NC X 3/8	Table II
8	4	Washer Compression 1/2	Table II
9	4	Screw HHC 1/2-13NC X 3/4	Table II
(NS) 10	2	Mounting Hardware	Table III (A) (B)
(NS) 11	1	TMI Label Kit	35417
(NS) 12	1	Operator's Manual	M4205
(NS) 13*	Table IV	Washer Flat 1/4	Table IV

NS=Not Shown

*Washer used under head of item 7 for stainless steel assemblies.

Table II. Martin® Trac-Mount™ Slider Cradle Fastener Part Numbers (CEMA C Class)

Part Number	Frame Material	P/N Item 6	P/N Item 7	P/N Item 8	P/N Item 9
CUTSCXPSXXXXXXXSP	Mild Steel	TMI-TT-075P	38608	11750	17080
CUTSCXPSXXXXXXXSC	304 SS	TMI-TT-075P	37472	24310	31294
CUTSCXPSXXXXXXXSS	316 SS	TMI-TT-075PS	37472	37422	31294

Table III (A). Martin® Trac-Mount™ Slider Cradle Mounting Hardware Part Numbers (CEMA C Class, Single Slider Bar Assembly)

Belt Width - in. (mm)	Frame Material	Hardware Size	P/N Item 10
18 to 36 (350 - 1000)	Mild Steel	1/2-13NC	35283
18 to 36 (350 - 1000)	304/316 SS	1/2-13NC	HDWS50204F
42 (1000 - 1200)	Mild Steel	5/8-11NC	HDWS63204
42 (1000 - 1200)	304/316 SS	5/8-11NC	HDWS63204F

Table III (B). Martin® Trac-Mount™ Slider Cradle Mounting Hardware Part Numbers (CEMA C Class, Double Slider Bar Assembly)

Belt Width - in. (mm)	Frame Material	Hardware Size	P/N Item 10
48 to 60 (1200 - 1800)	Mild Steel	5/8-11NC	HDWS63204
48 to 60 (1200 - 1800)	304/316 SS	5/8-11NC	HDWS63204F

Table IV. Martin® Trac-Mount™ Slider Cradle Washer Flat Part Numbers

Belt Width	Frame Material	QTY Item 13	P/N Item 13
CUTSXXPSXXXXXXXSP	Mild Steel	0	----
CUTSXXPSXXXXXXXSC	304 SS	4	36453
CUTSXXPSXXXXXXXSS	316 SS	4	36453

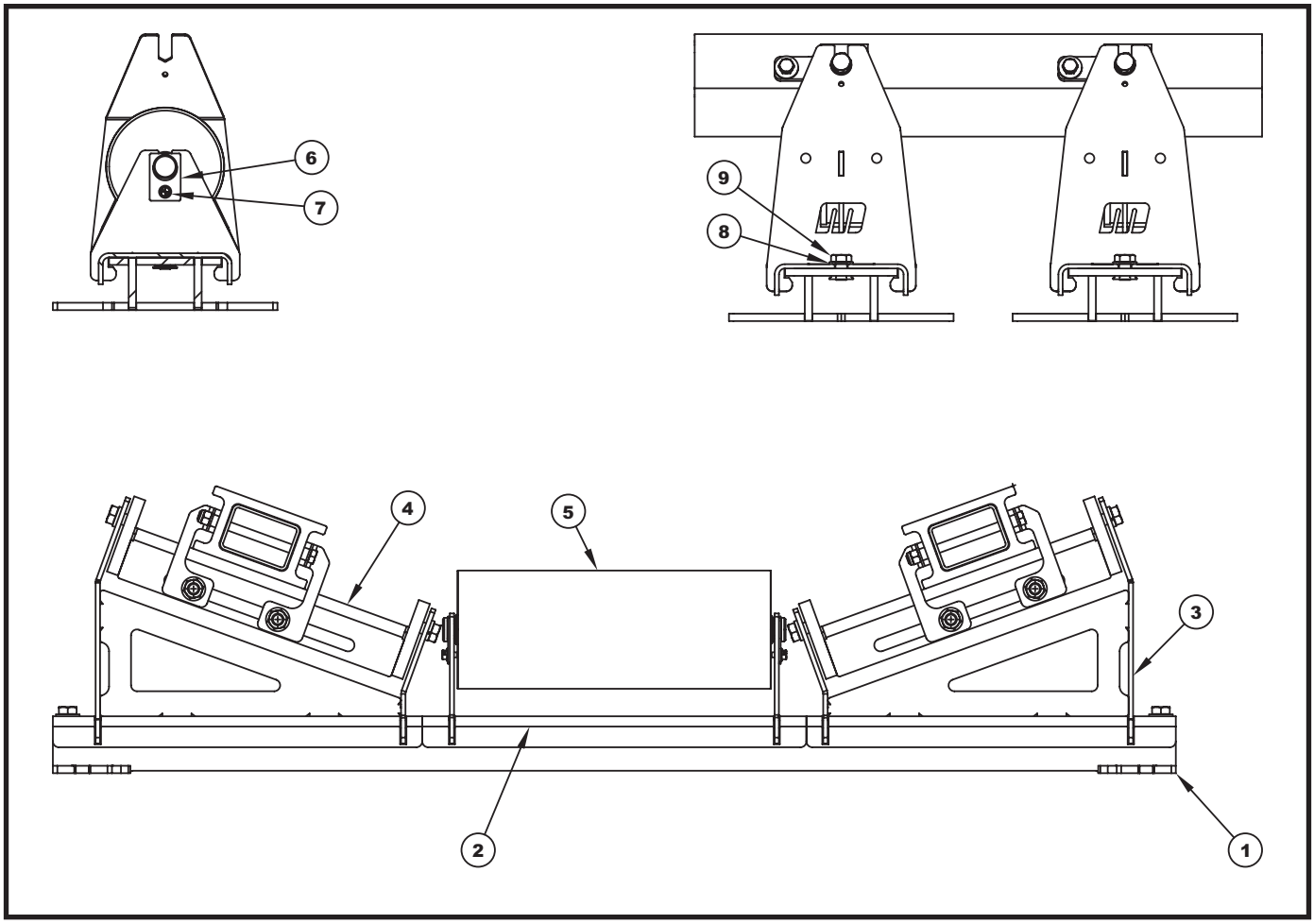


Figure 7. CUTSDXPSXXXXXXXSX Martin® Trac-Mount™ Slider Cradle (CEMA D Class) (Single-Bar Shown)

Item	Qty.	Description	Part Number
1	2	Track Weldment	TMI2-TW-DXXXX
2	2	Center Sleeve Weldment	TMI2-CW-DXXXX
3	4	Wing Sleeve Weldment	TMI2-WW-DXXXXXXX
4	2	Idler Conversion Kit	CUTSP4SXXXXXX
5	2	Roll	TMIRDX-XXSP
6	4	Tie Tab	Table V
7	4	Screw HHC 1/4-20NC X 3/8	Table V
8	4	Washer Compression 1/2	Table V
9	4	Screw HHC 1/2-13NC X 3/4	Table V
(NS) 10	2	Mounting Hardware	Table VI (A) (B)
(NS) 11	1	TMI Label Kit	35417
(NS) 12	1	Operator's Manual	M4205
(NS) 13*	Table IV	Washer Flat 1/4	Table IV

NS=Not Shown

*Washer used under head of item 7 for stainless steel assemblies.

Table V. Martin® Trac-Mount™ Slider Cradle Fastener Part Numbers (CEMA D Class)

Part Number	Frame Material	P/N Item 6	P/N Item 7	P/N Item 8	P/N Item 9
CUTSDXPSXXXXXXXSP	Mild Steel	TMI-TT-100P	38608	11750	17080
CUTSDXPSXXXXXXXSC	304 SS	TMI-TT-100P	37472	24310	31294
CUTSDXPSXXXXXXXSS	316 SS	TMI-TT-100PS	37472	37422	31294

Table VI (A). Martin® Trac-Mount™ Slider Cradle Mounting Hardware Part Numbers (CEMA D Class, Single Slider Bar Assembly)

Belt Width - in. (mm)	Frame Material	Hardware Size	P/N Item 10
24 to 36 (500 - 1000)	Mild Steel	1/2-13NC	35283
24 to 36 (500 - 1000)	304/316 SS	1/2-13NC	HDWS50204F
42 (1000 - 1200)	Mild Steel	5/8-11NC	HDWS63204
42 (1000 - 1200)	304/316 SS	5/8-11NC	HDWS63204F

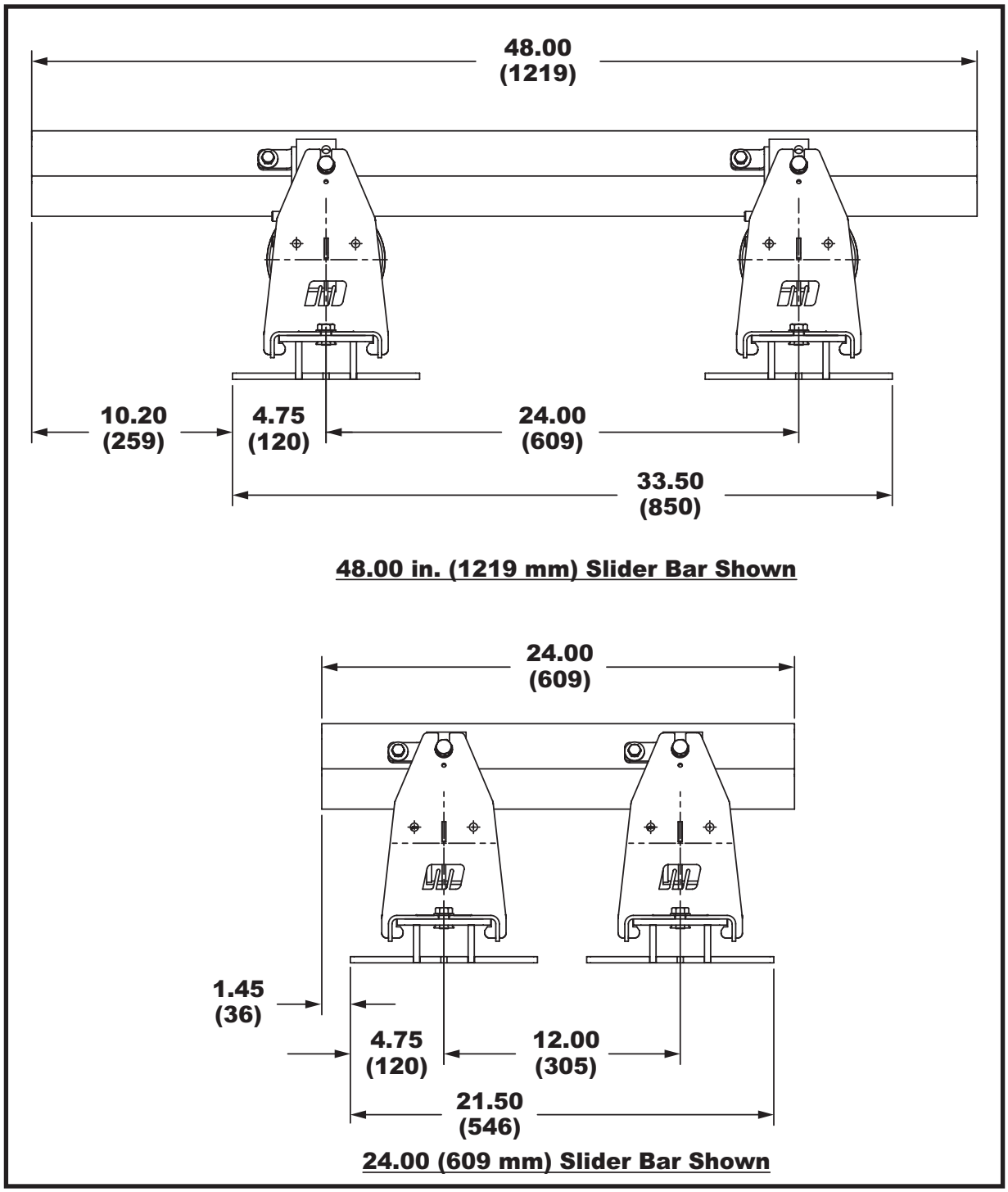
Table VI (B). Martin® Trac-Mount™ Slider Cradle Mounting Hardware Part Numbers (CEMA D Class, Double Slider Bar Assembly)

Belt Width - in. (mm)	Frame Material	Hardware Size	P/N Item 10
48 to 72 (1200-2000)	Mild Steel	5/8-11NC	HDWS63204
48 to 72 (1200-2000)	304/316 SS	5/8-11NC	HDWS63204F

Appendix

Martin® Trac-Mount™ Slider Cradle

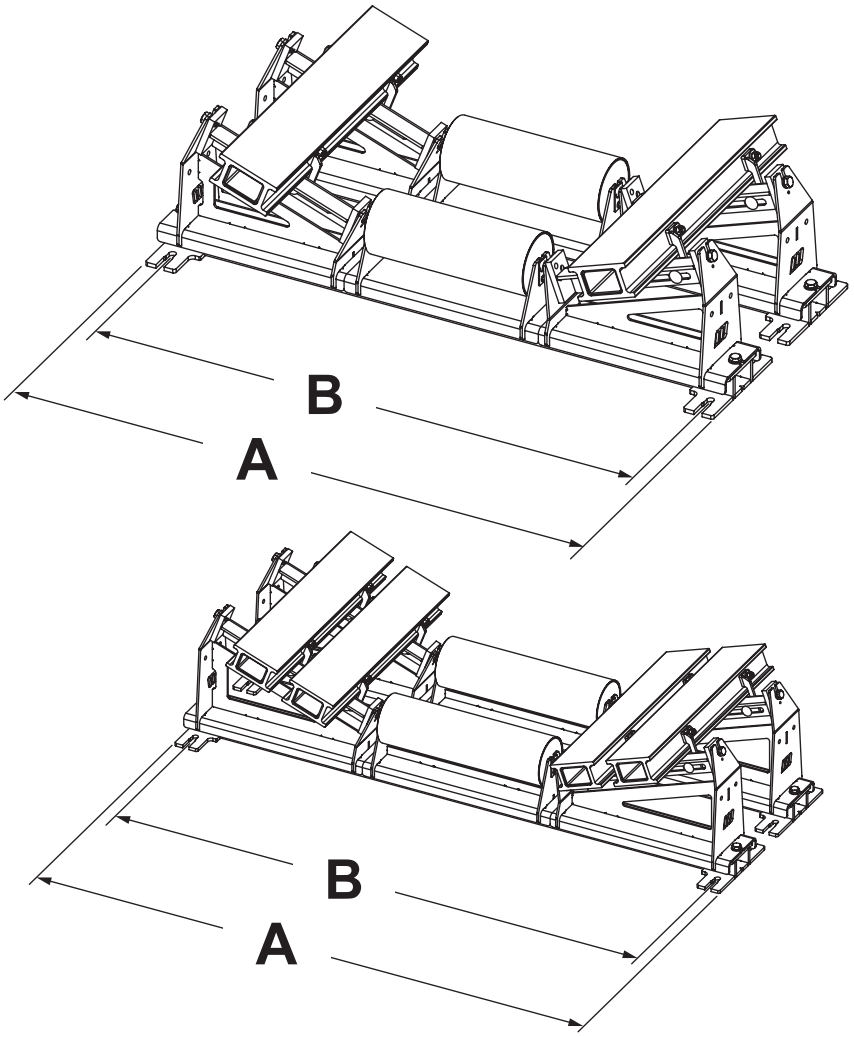
Mounting Location Options



Martin® Trac-Mount™ Slider Cradle Overall Dimensions

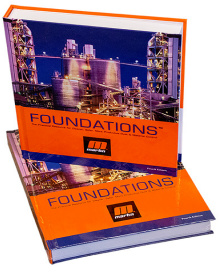
DIMENSIONS & ORDER INFORMATION

P/N	Belt Width *in (mm)*	Stringer Style	Stringer Width (A) *in (mm)*	Mounting Centers (B) *in (mm)*
Single-Bar Cradles				
CUTSXXPS18XXSXXXX CUTSXXPS18XXWXXXX	18 (350-500)	Standard Base Wide Base	29.5 (750) 35.5 (902)	27 (686) 33 (838)
CUTSXXPS24XXSXXXX CUTSXXPS24XXWXXXX	24 (500-650)	Standard Base Wide Base	35.5 (902) 41.5 (1054)	33 (838) 39 (991)
CUTSXXPS30XXSXXXX CUTSXXPS30XXWXXXX	30 (650-800)	Standard Base Wide Base	41.5 (1054) 47.5 (1207)	39 (991) 45 (1143)
CUTSXXPS36XXSXXXX CUTSXXPS36XXWXXXX	36 (800-1000)	Standard Base Wide Base	47.5 (1207) 53.5 (1359)	45 (1143) 51 (1295)
CUTSXXPS42XXSXXXX CUTSXXPS42XXWXXXX	42 (1000-1200)	Standard Base Wide Base	53.5 (1359) 59.5 (1511)	51 (1295) 57 (1448)
Double-Bar Cradles				
CUTSXXPS48XXSXXXX CUTSXXPS48XXWXXXX	48 (1200-1400)	Standard Base Wide Base	59.5 (1511) 65.5 (1664)	57 (1448) 63 (1600)
CUTSXXPS54XXSXXXX CUTSXXPS54XXWXXXX	54 (1400-1600)	Standard Base Wide Base	65.5 (1664) 71.5 (1816)	63 (1600) 69 (1753)
CUTSXXPS54XXSXXXX CUTSXXPS54XXWXXXX	60 (1600-1800)	Standard Base Wide Base	71.5 (1816) 77.5 (1969)	69 (1753) 75 (1905)
CUTSXXPS72XXSXXXX CUTSXXPS72XXWXXXX	72 (1800-2000)	Standard Base Wide Base	83.5 (2121) 89.5 (2273)	81 (2057 87 (2210)



Martin® Trac-Mount™ Slider Cradle Mounting Dimensions

Problem Solved™ GUARANTEED!



For nearly 30 years, Martin Engineering's Foundations™ Books have taught industry personnel to operate and maintain clean and safe belt conveyors. The Foundations™ Book, fourth edition, focuses on improving belt conveyors by controlling fugitive material. "The Practical Resource for Total Dust and Material Control," is a 576-page hard cover volume that provides information of value to industries where the efficient handling of bulk materials is a key to productivity and profitability.

Expanding upon the book, our Foundations™ Training Program addresses the design and development of more productive belt conveyors, and is offered in three customizable seminars. Attendees gain a better understanding of conveyor safety and performance, helping to justify upgrade investments and increase profitability.

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