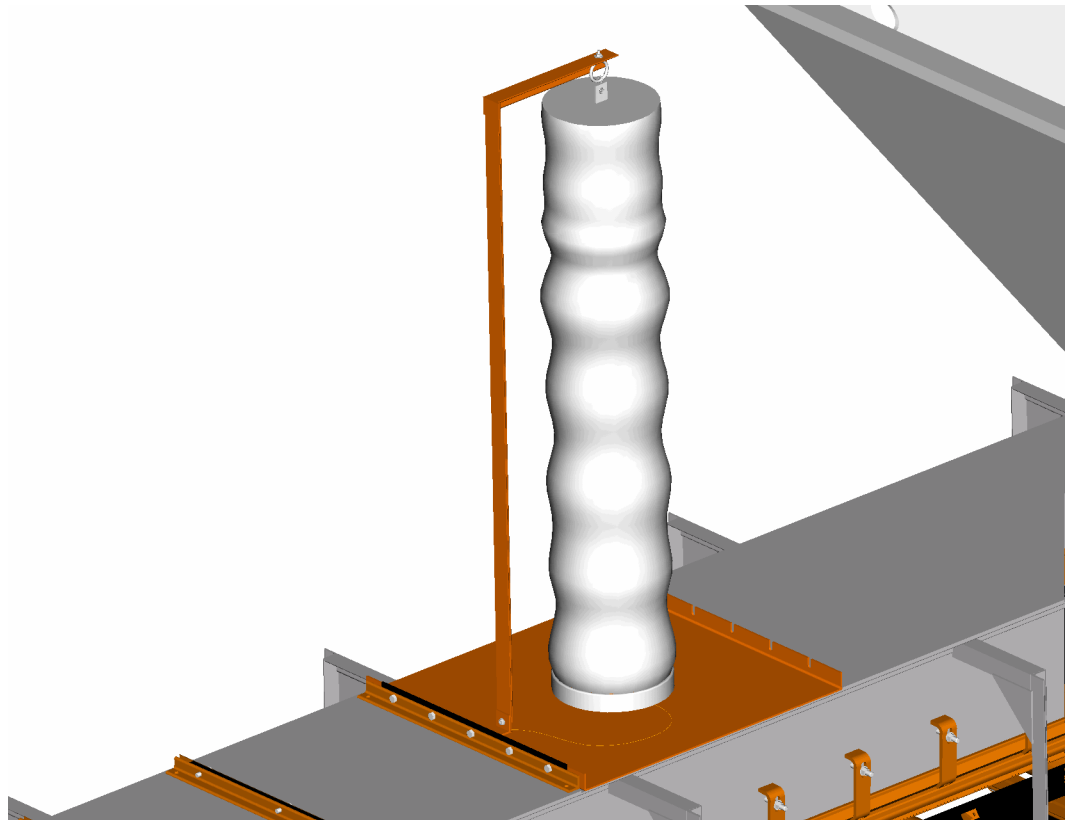


martin®

Martin®
Dust Bag



Operator's Manual
M3678

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) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements* and Occupational Safety and Health Administration (OSHA) Federal Register, Part IV, 29 CFR Part 1910, *Control of Hazardous Energy Source (Lockout/Tagout); Final Rule*.

The following symbols may be used in this manual:



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



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



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



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



Note: General statements to assist the reader.

Table of Contents

Section	Page
List of Figures	ii
Introduction	1
General	1
Location requirements for transfer point installations	1
References	1
Safety	1
Materials required	1
Before Installing Dust Bag	2
Installing Dust Bag	3
Operation and Maintenance	10
Part Numbers	11

List of Figures

Figure	Title	Page
1	Martin [®] Dust Bag Assembly ø12.00 x 72.00, P/N 34839-XX	12
2	Martin [®] Dust Bag Assembly ø24.00 x 72.00, P/N 34840-XX	14
3	Martin [®] Static Dissipating Dust Bag Assembly ø12.00 x 72.00, P/N 34839-XXSD..	16
4	Martin [®] Static Dissipating Dust Bag Assembly ø24.00 x 72.00, P/N 34840-XXSD..	18

Introduction

General

The Martin® Dust Bag provides passive relief for positive air pressure produced at loading zones. These breather bags filter outgoing air to minimize the escape of dust to the plant environment. Attached with a clamp to a flange installed in the chute cover, each Martin® Dust Bag includes a stainless steel grounding strap to disperse static electricity and grommets to hang the bag from a mounting frame.

Location requirements for transfer point installations

To ensure the Martin® Dust Bag's maximum effectiveness, make sure the transfer point is properly sealed and designed with dust control in mind, as follows:

- **Chute length:** For standard materials or belt speeds up to 250 fpm (1.3 m/s), the transfer point chute length should equal 2 ft. after last load zone per 100 fpm (210 mm per 0.5 m/s) of belt speed. For very dusty materials or belt speeds of 300 fpm (1.5 m/s) and higher, the chute length should equal 3 ft. after last load zone per 100 fpm (914 mm per 0.5 m/s) of belt speed. When in doubt, make the chute longer.
- **Chute height:** For exit air velocities up to 250 fpm (1.3 m/s), the chute wall should be at least 12 in. (305 mm) high. For very dusty materials or belt speeds of 300 fpm (1.5 m/s) and higher, it should be at least 24 in. (610 mm) high.
- **Distance from load zone:** Locate Martin® Dust Bag approximately 1/3 of the length of the transfer chute downstream from the load zone.
- **Overhead clearance:** Martin® Dust Bag requires approximately 73 in. (1854 mm) of clearance above the chute work for installation and operation.

For best results, install a Martin® Dust Curtain at the exit of the chute. For information on transfer point wear liners and sealing systems, call Martin Engineering or a representative.

References

The following documents are referenced in this manual:

- American National Standards Institute (ANSI) z244.1-1982, *American National Standard for Personnel Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements*, American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.
- Federal Register, Volume 54, Number 169, Part IV, 29 CFR Part 1910, *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, Chicago, IL 60604.

Safety

All safety rules defined in the above documents and all owner/employer safety rules must be strictly followed when working on this equipment.

Materials required

Standard hand tools, cutting torch or mobile saw, welder, silicone caulk.

Before Installing Dust Bag

IMPORTANT

The delivery service is responsible for damage occurring in transit. Martin Engineering CANNOT enter claims for 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 equipment from shipping container. Refer to Part Numbers section of manual to verify shipped contents.
3. If anything is missing, contact Martin Engineering or representative.

⚠ WARNING

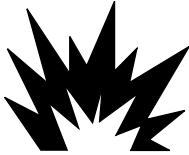
Before installing equipment, turn off and lock out/tag out energy source to conveyor and conveyor accessories.



4. Turn off and lock out/tag out energy source according to ANSI standards (see "References").

⚠ WARNING

If equipment will be installed in an enclosed area, gas level or dust content must be tested before using a cutting torch or welding. Using a cutting torch or welding in an area with gas or dust may cause an explosion.



5. If using a cutting torch or welding, test atmosphere for gas level or dust content. Cover conveyor belt with fire retardant cover.

Installing Dust Bag

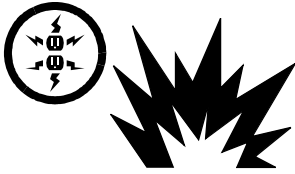
IMPORTANT

Read entire section before beginning work.

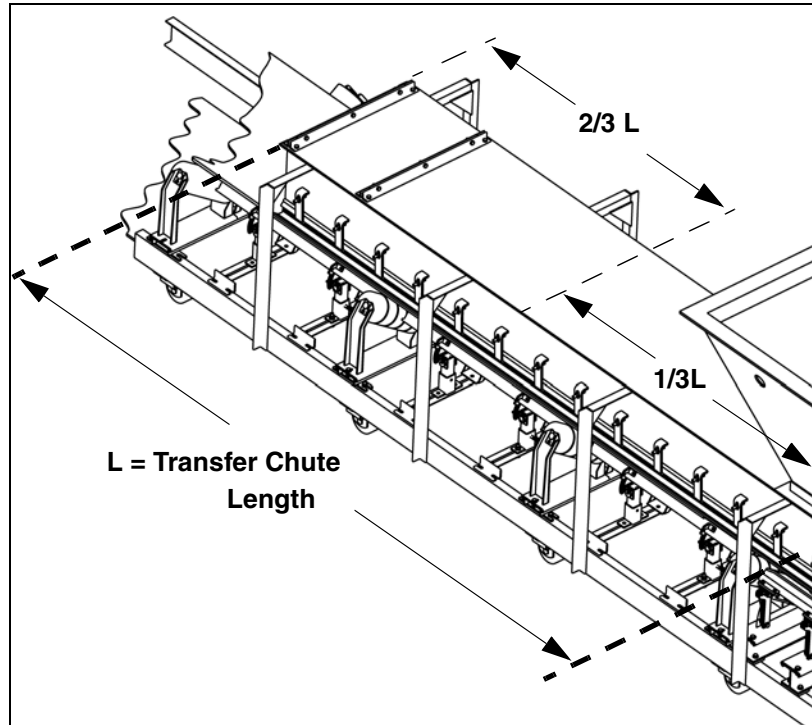
1. Make sure conveyor belt structure and chute work will support Martin[®] Dust Bag.
2. Determine how to best install Martin[®] Dust Bag on your application.

⚠ DANGER

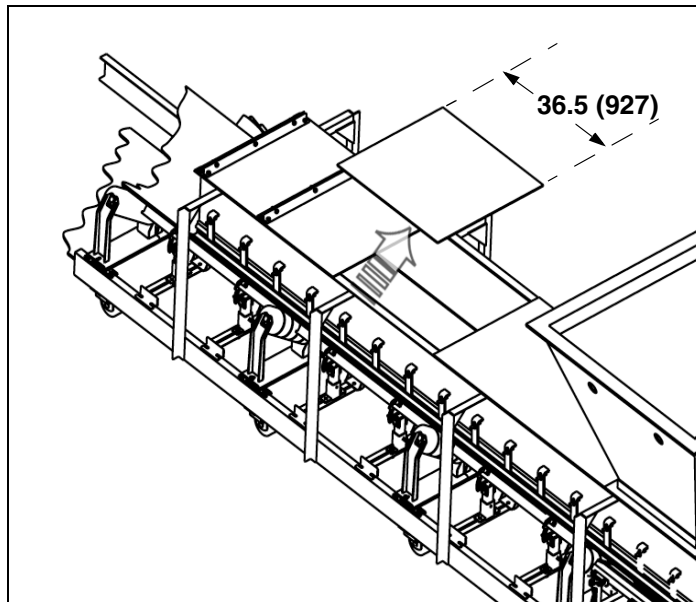
Properly ground unit to earth by connecting a ground wire to the earthing boss on the unit. Failure to properly ground the unit can result in a static electricity explosion, damage to equipment, and severe injury or death.



1. Locate Martin® Dust Bags approximately $\frac{1}{3}$ the length of the transfer chute downstream from the load zone. Ensure area above chute has at least 73 in. (1854 mm) of clearance.



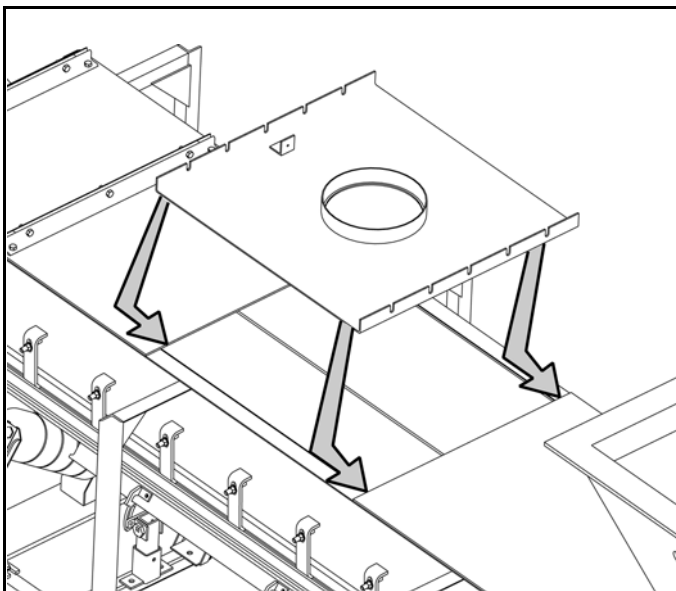
2. Remove a section of top cover 36.5 in. (927 mm) long.



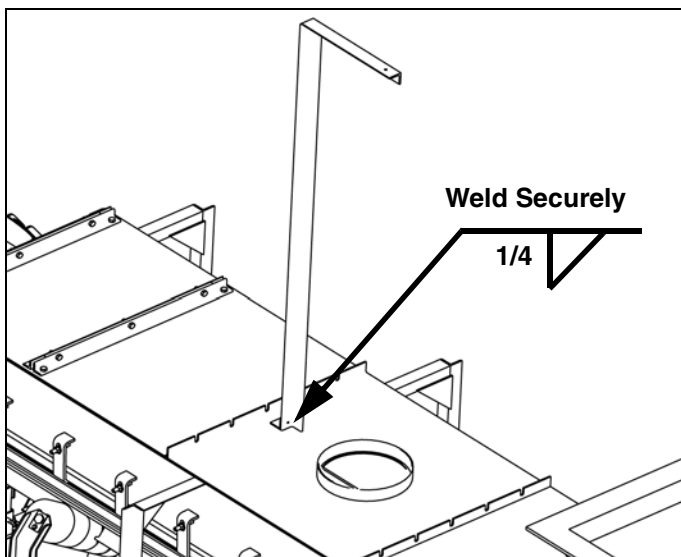
3. Place top cover weldment into opening in top cover and slide weldment upstream until weldment touches the existing top cover. Use C-clamps to hold top cover weldment to existing structure.

NOTE

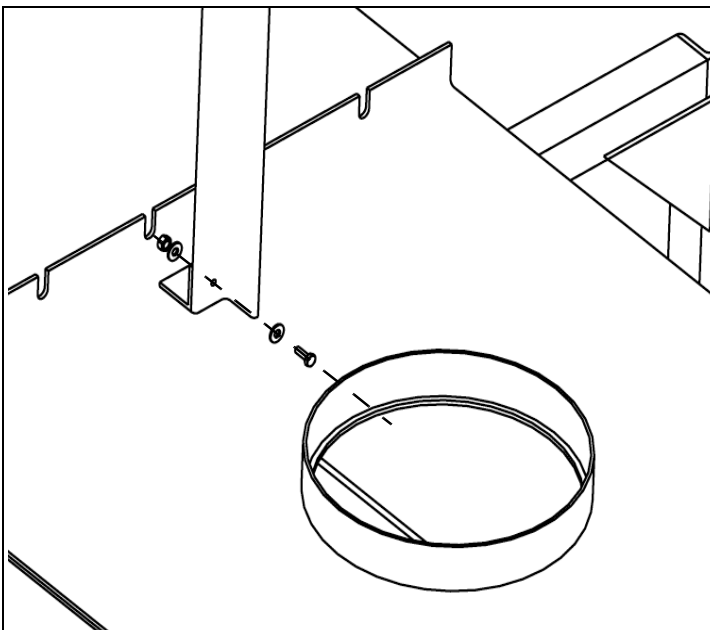
There will be a gap between weldment and top cover on the downstream side.



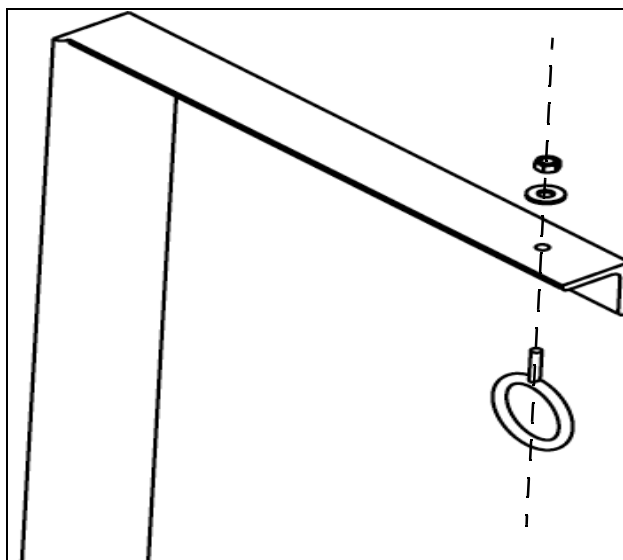
4. Align upright weldment with tab on top cover weldment and securely weld together.



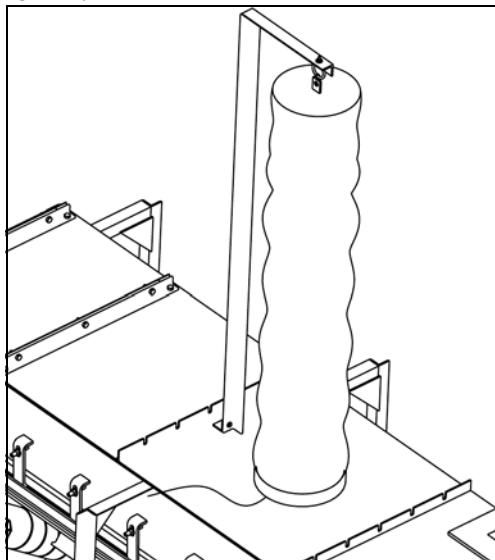
5. Attach nut, bolt and washer through lower hole in upright weldment, but do not tighten.



6. Attach eyebolt to upright weldment with 5/16-in. (8-mm) washer and nut.

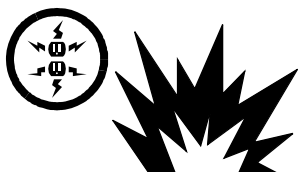


7. Slip bag over ring on top cover weldment and secure with ring clamp.
Attach top of bag to eyebolt with S-hook.

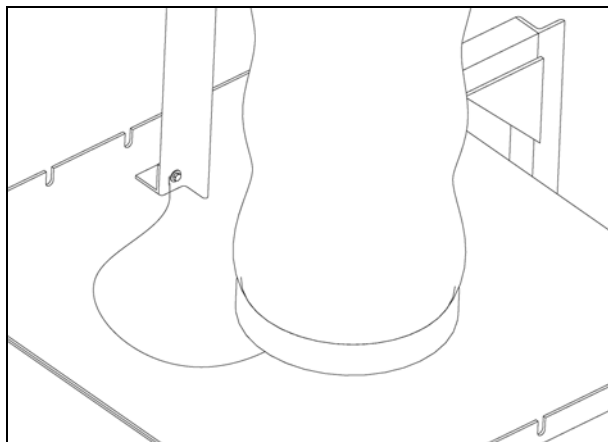


8. Attach stainless steel ground wire to bolt in upright weldment and tighten.

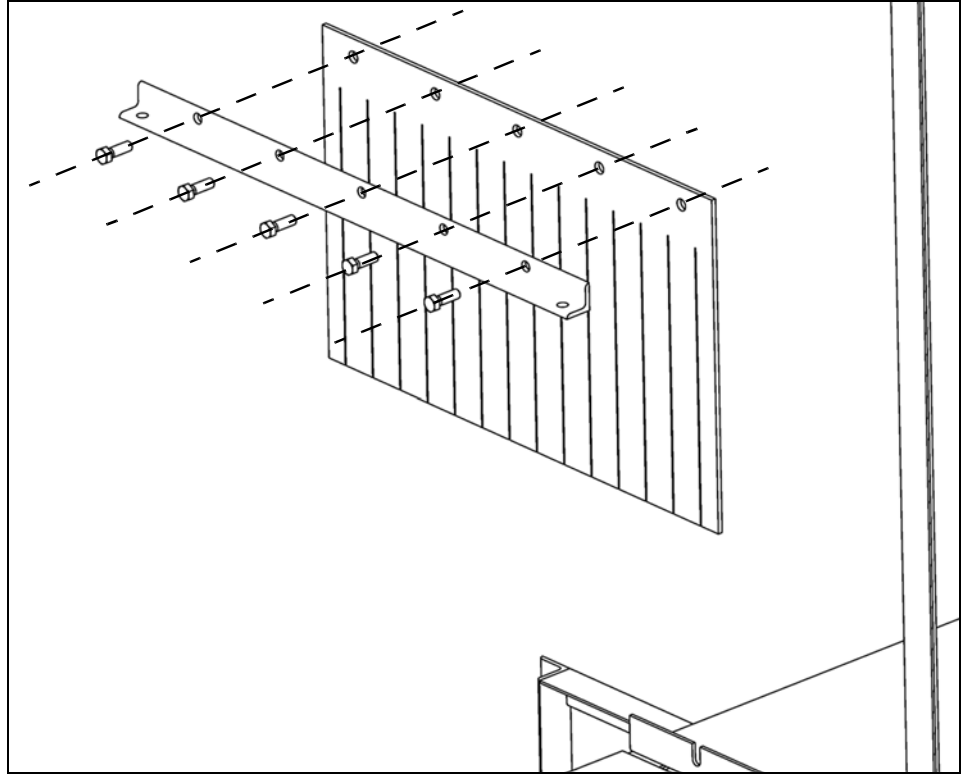
⚠ DANGER



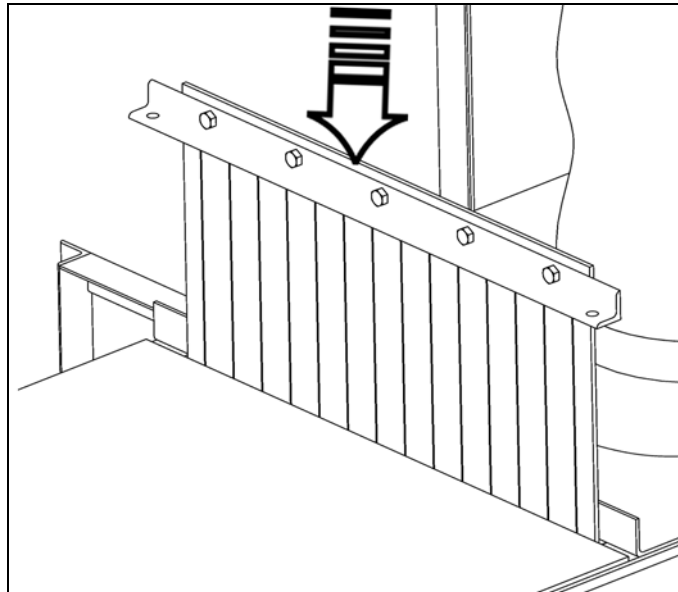
Properly ground unit to earth by connecting a ground wire to the earthing boss on the unit. Failure to properly ground the unit can result in a static electricity explosion, damage to equipment, and severe injury or death.



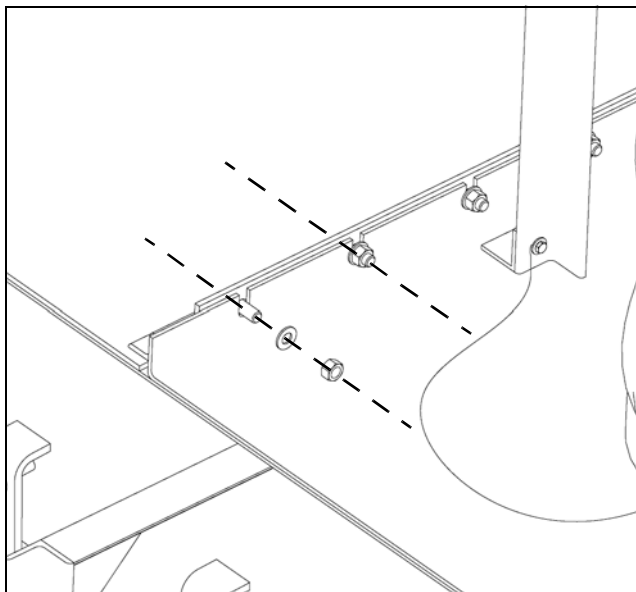
9. Attach Martin® Dust Curtain to curtain base angle with 1/2-in. (13-mm) screws.



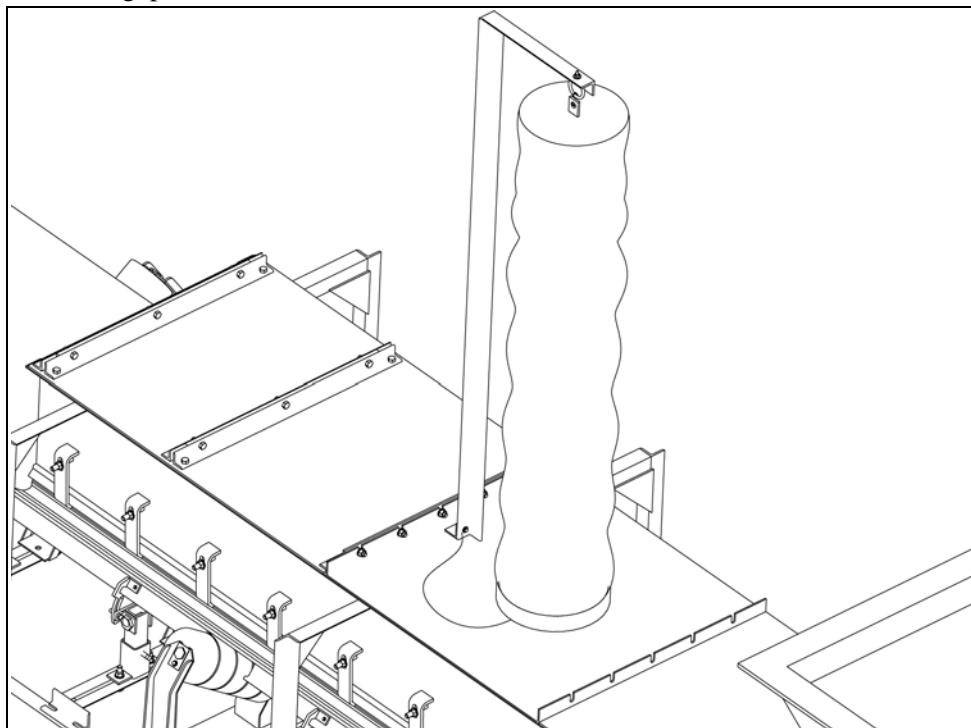
10. Slide dust curtain assembly into gap between top cover weldment and existing top cover.



11. Secure Martin® Dust Curtain Assembly to top cover weldment with 1/2-in. (13-mm) washers and nuts.



12. Fill all gaps with silicone caulk.



Operation and Maintenance

IMPORTANT

Read entire section before beginning work.

⚠ WARNING

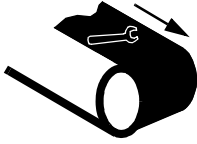
Failure to remove tools from installation area and conveyor belt before turning on energy source can cause serious injury to personnel and damage to belt.

1. 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.

2. Turn on conveyor belt.



Part Numbers

For replacement parts, contact Martin Engineering or a representative.

Martin[®] Dust Bag

Martin[®] Dust Bag Assembly ø12.00 x 72.00: P/N 34839-XX. See Figure 1.

Martin[®] Dust Bag Assembly ø24.00 x 72.00: P/N 34840-XX. See Figure 2.

Martin[®] Static Dissipating Dust Bag Assembly ø12.00 x 72.00:
P/N 34839-XXSD. See Figure 3.

Martin[®] Static Dissipating Dust Bag Assembly ø24.00 x 72.00:
P/N 34840-XXSD. See Figure 4.

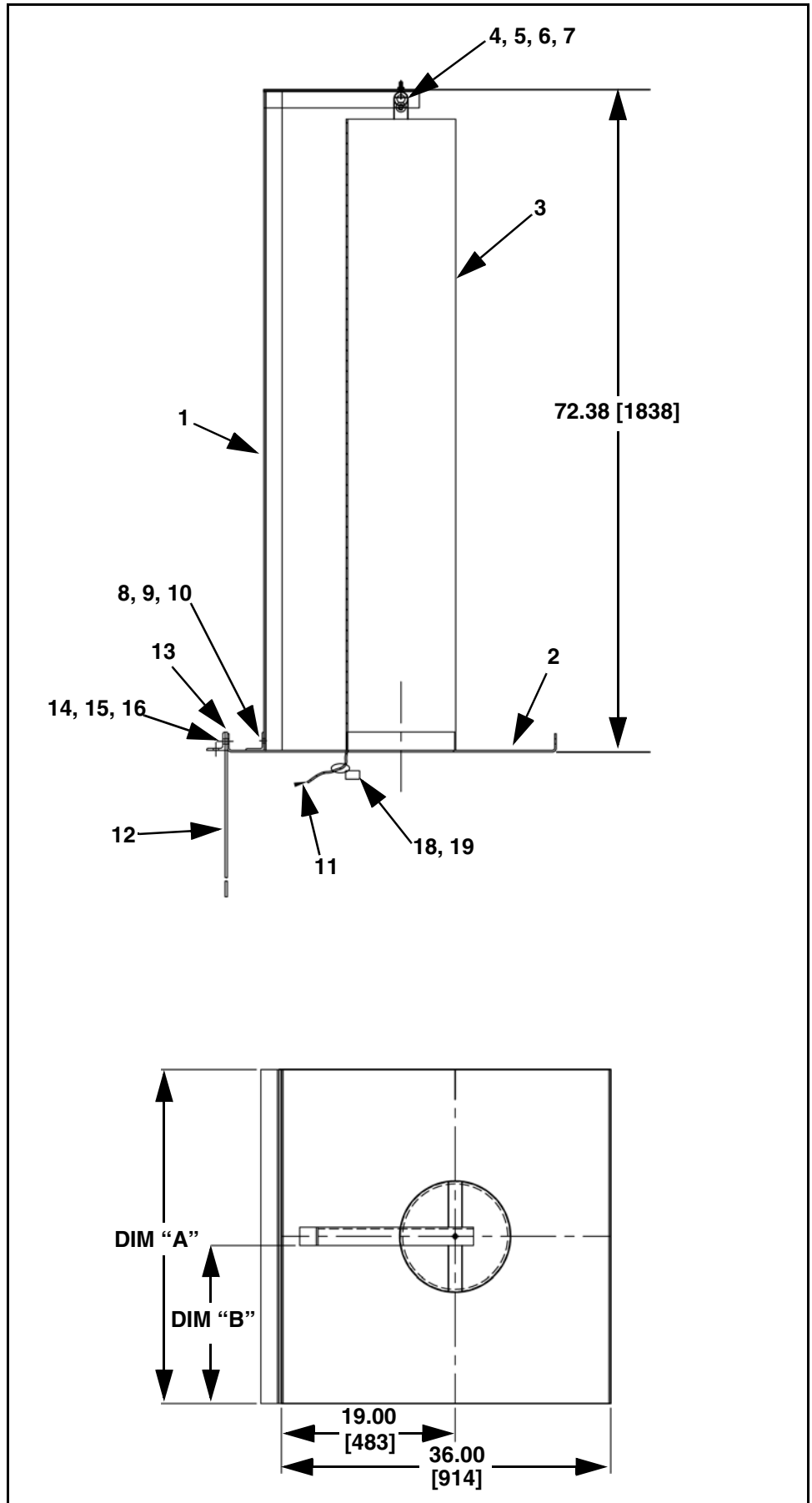


Figure 1. Martin® Dust Bag Assembly $\phi 12.00 \times 72.00$, 34839-XX (sheet 1 of 2)

Item	Qty.	Description	P/N
1	1	Upright Weldment	34837
2	1	Top Cover Weldment	See Table
3	1	Dust Bag 12.00	34825
4	1	Eyebolt 5/16-18NC X 1-1/8	33131
5	1	Washer Flat 5/16	13847
6	1	Nut Hex 5/16-18NC	11963
7	1	S-Hook	34836
8	1	Screw HHC 1/4-20NC X 3/4	11852
9	2	Washer Flat 1/4	15073
10	1	Nut Hex 1/4-20NC	11769
11	1	Ring Terminal 1/4	35556-03
12	1	Dust Curtain	See Table
13	1	Dust Curtain Base	See Table
14	S/T	Screw HHC 1/2-13NC X 1-1/2	11763
15	S/T	Nut Hex 1/2-13NC 11771	11771
16	S/T	Washer Compression 1/2	11750
17*	6	C-clamps HD Beams	33632
18	1	Tag Dust Bag Warning	34852
19	1	Tie Nylon Cable	30916
20*	1	Manual Operator's	M3678

* Not Shown; S/T = see Table.

Part Number	Dimension "A"	Dimension "B"	Quantity 14,15,16	Part Number Item 2	Part Number Item 12	Part Number Item 13
34839-18	18.50 [470]	8.25 [210]	2	34838-1812	33965-18	33966-18
34839-24	24.50 [622]	11.25 [286]	3	34838-2412	33965-24	33966-24
34839-30	30.50 [775]	14.25 [362]	4	34838-3012	33965-30	33966-30
34839-36	36.50 [927]	17.25 [438]	5	34838-3612	33965-36	33966-36
34839-42	42.50 [1080]	20.25 [514]	6	34838-4212	33965-42	33966-42
34839-48	48.50 [1232]	23.25 [591]	7	34838-4812	33965-48	33966-48
34839-54	54.50 [1384]	26.25 [667]	8	34838-5412	33965-54	33966-54
34839-60	60.50 [1537]	29.25 [743]	9	34838-6012	33965-60	33966-60
34839-72	72.50 [1842]	35.25 [895]	11	34838-7212	33965-72	33966-72
34839-84	84.50 [2146]	41.25 [1048]	13	34838-8412	33965-84	33966-84
34839-96	96.50 [2451]	47.25 [1200]	15	34838-9612	33965-96	33966-96

Figure 1. Martin® Dust Bag Assembly ø12.00 x 72.00, 34839-XX (sheet 2 of 2)

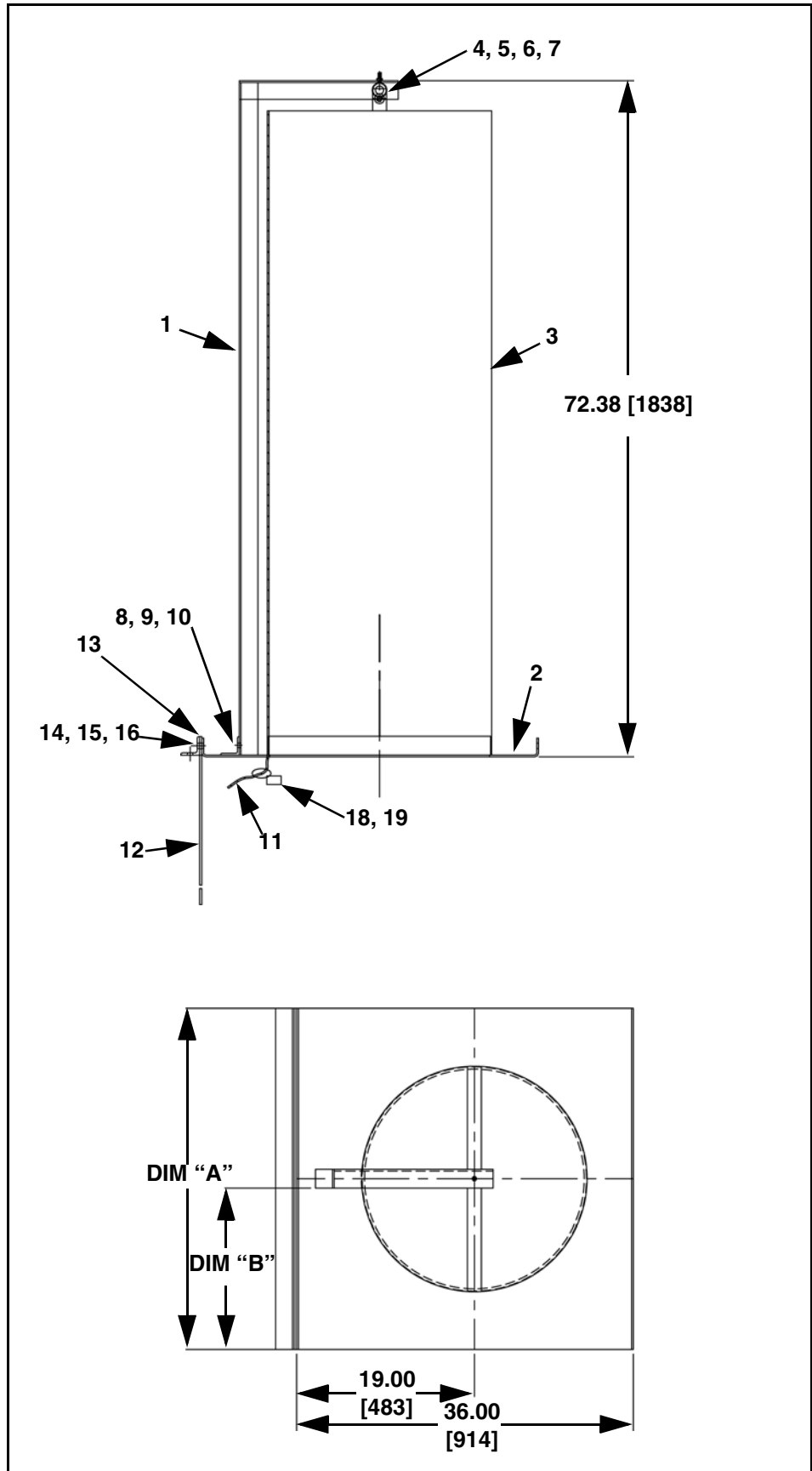


Figure 2. Martin[®] Dust Bag Assembly $\phi 24.00 \times 72.00$, 34840-XX (sheet 1 of 2)

Item	Qty.	Description	P/N
1	1	Upright Weldment	34837
2	1	Top Cover Weldment	See Table
3	1	Dust Bag 24.00	34826
4	1	Eyebolt 5/16-18NC	33131
5	1	Washer Flat 5/16	13847
6	1	Nut Hex 5/16-18NC	11963
7	1	S-Hook	34836
8	1	Screw HHC 1/4-20NC	11852
9	2	Washer Flat 1/4	15073
10	1	Nut Hex 1/4-20NC	11769
11	1	Ring Terminal 1/4	35556-03
12	1	Dust Curtain	See Table
13	1	Dust Curtain	See Table
14	S/T	Screw HHC 1/2-13NC	11763
15	S/T	Nut Hex 1/2-13NC	11771
16	S/T	Washer Compression 1/2	11750
17*	6	C-clamps HD Beams	33632
18	1	Tag Dust Bag Warning	34852
19	1	Tie Nylon Cable	30916
20*	1	Manual Operator's	M3678

* Not Shown; S/T = see Table.

Part Number	Dimension "A"	Dimension "B"	Quantity 14,15,16	Part Number Item 2	Part Number Item 12	Part Number Item 13
34840-30	30.50 [775]	14.25 [362]	4	34838-3024	33965-30	33966-30
34840-36	36.50 [927]	17.25 [438]	5	34838-3624	33965-36	33966-36
34840-42	42.50 [1080]	20.25 [514]	6	34838-4224	33965-42	33966-42
34840-48	48.50 [1232]	23.25 [591]	7	34838-4824	33965-48	33966-48
34840-54	54.50 [1384]	26.25 [667]	8	34838-5424	33965-54	33966-54
34840-60	60.50 [1537]	29.25 [743]	9	34838-6024	33965-60	33966-60
34840-72	72.50 [1842]	35.25 [895]	11	34838-7224	33965-72	33966-72
34840-84	84.50 [2146]	41.25 [1048]	13	34838-8424	33965-48	33966-84
34840-96	96.50 [2451]	47.25 [1200]	15	34838-9624	33965-96	33966-96

Figure 2. Martin[®] Dust Bag Assembly ø24.00 x 72.00, 34840-XX (sheet 2 of 2)

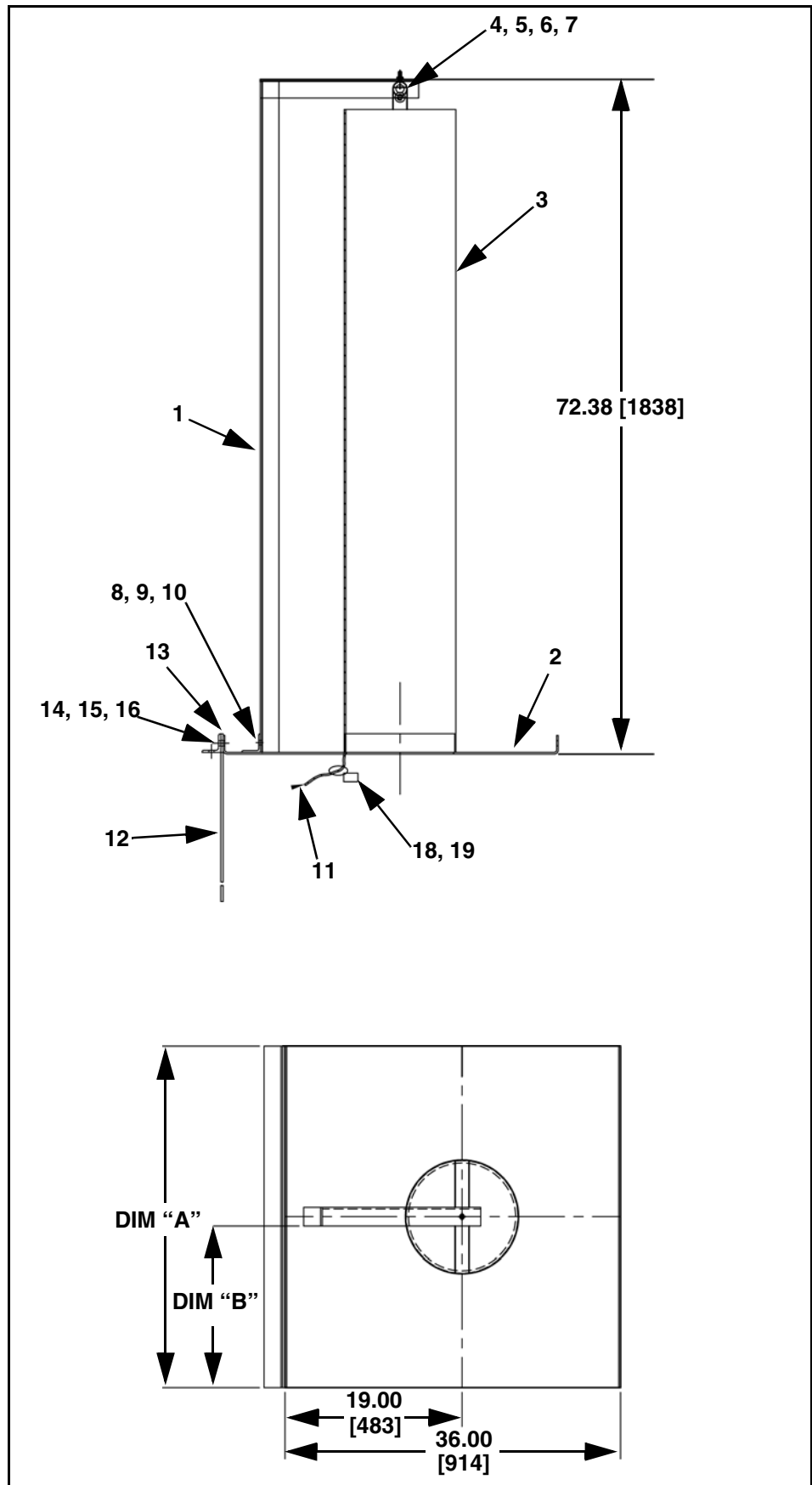


Figure 3. Martin® Static Dissipating Dust Bag Assembly $\phi 12.00 \times 72.00$, 34839-XXSD (sheet 1 of 2)

Item	Qty.	Description	P/N
1	1	Upright Weldment	34837
2	1	Top Cover Weldment	See Table
3	1	Static Dissipating Dust Bag	34825-SD
4	1	Eyebolt 5/16-18NC X 1-1/8	33131
5	1	Washer Flat 5/16	13847
6	1	Nut Hex 5/16-18NC	11963
7	1	S-Hook	34836
8	1	Screw HHC 1/4-20NC X 3/4	11852
9	1	Washer Flat 1/4	15073
10	1	Nut Hex 1/4-20NC	11769
11	1	Ring Terminal 1/4	35556-03
12	1	Dust Curtain	See Table
13	1	Dust Curtain Base	See Table
14	S/T	Screw HHC 1/2-13NC X 1-1/2	11783
15	S/T	Nut Hex 1/2-13NC	11771
16	S/T	Washer Compression 1/2	11750
17*	6	C-clamps HD Beams	33632
18	1	Tag Dust Bag Warning	34852
19	1	Tie Nylon Cable	30916
20*	1	Manual Operator's	M3678

* Not Shown; S/T = see Table.

Part Number	Dimension "A"	Dimension "B"	Quantity 14,15,16	Part Number Item 2	Part Number Item 12	Part Number Item 13
34839-18SD	18.50 [470]	8.25 [210]	2	34838-1812	33965-18	33966-18
34839-24SD	24.50 [622]	11.25 [286]	3	34838-2412	33965-24	33966-24
34839-30SD	30.50 [775]	14.25 [362]	4	34838-3012	33965-30	33966-30
34839-36SD	36.50 [927]	17.25 [438]	5	34838-3612	33965-36	33966-36
34839-42SD	42.50 [1080]	20.25 [514]	6	34838-4212	33965-42	33966-42
34839-48SD	48.50 [1232]	23.25 [591]	7	34838-4812	33965-48	33966-48
34839-54SD	54.50 [1384]	26.25 [667]	8	34838-5412	33965-54	33966-54
34839-60SD	60.50 [1537]	29.25 [743]	9	34838-6012	33965-60	33966-60
34839-72SD	72.50 [1842]	35.25 [895]	11	34838-7212	33965-72	33966-72
34839-84SD	84.50 [2146]	41.25 [1048]	13	34838-8412	33965-84	33966-84
34839-96SD	96.50 [2451]	47.25 [1200]	15	34838-9612	33965-96	33966-96

Figure 3. Martin® Static Dissipating Dust Bag Assembly ø12.00 x 72.00, 34839-XXSD (sheet 2 of 2)

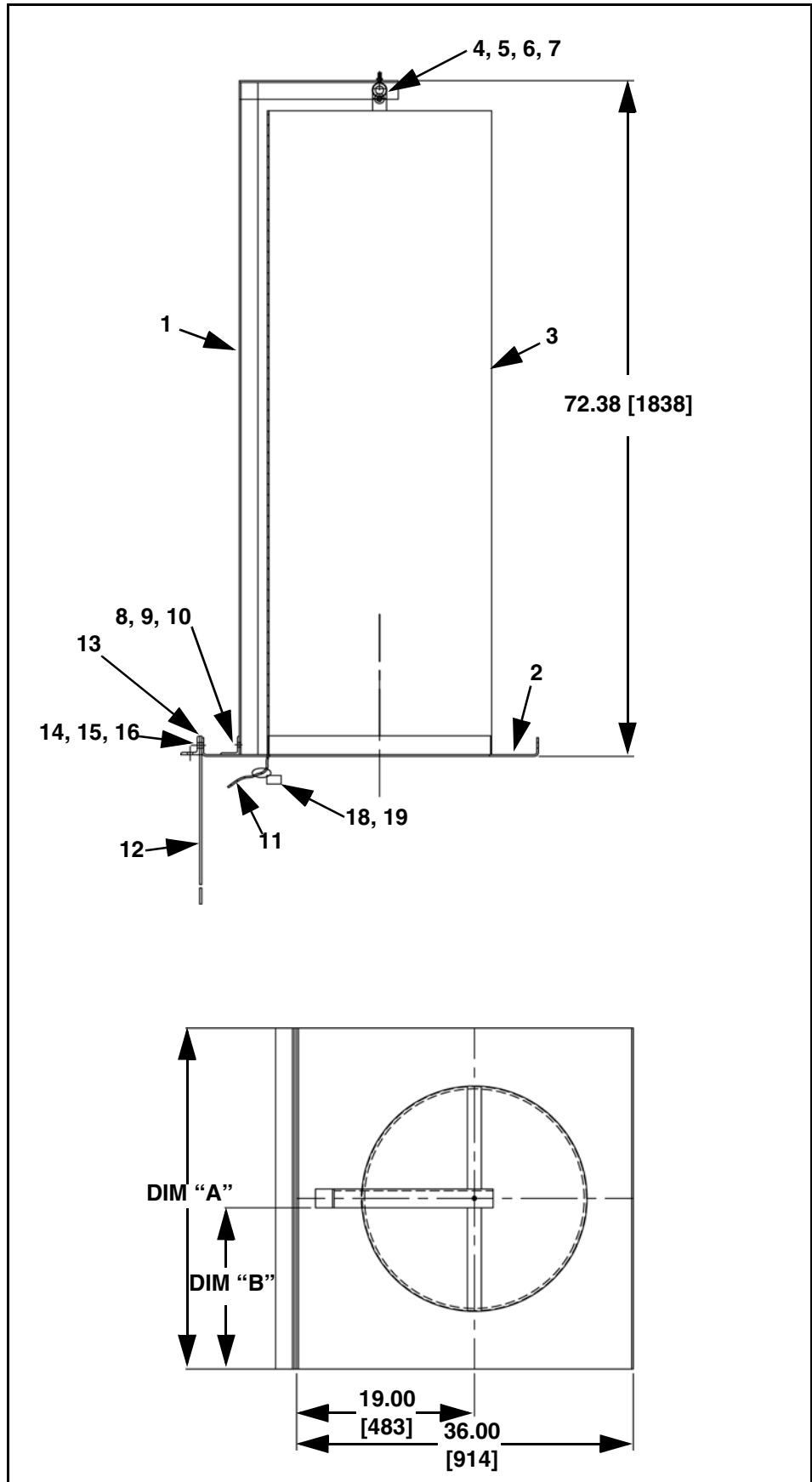


Figure 4. Martin[®] Static Dissipating Dust Bag Assembly $\phi 24.00 \times 72.00$, 34840-XXSD
(sheet 1 of 2)

Item	Qty.	Description	P/N
1	1	Upright Weldment	34837
2	1	Top Cover Weldment	See Table
3	1	Static Dissipating Dust Bag	34826-SD
4	1	Eyebolt 5/16-18NC X 1-1/8	33131
5	1	Washer Flat 5/16	13847
6	1	Nut Hex 5/16-18NC	11963
7	1	S-Hook	34836
8	1	Screw HHC 1/4-20NC X 3/4	11852
9	1	Washer Flat 1/4	15073
10	1	Nut Hex 1/4-20NC	11769
11	1	Ring Terminal 1/4	35556-03
12	1	Dust Curtain	See Table
13	1	Dust Curtain Base	See Table
14	S/T	Screw HHC 1/2-13NC X 1-1/2	11783
15	S/T	Nut Hex 1/2-13NC	11771
16	S/T	Washer Compression 1/2	11750
17*	6	C-clamps HD Beams	33632
18	1	Tag Dust Bag Warning	34852
19	1	Tie Nylon Cable	30919
20*	1	Manual Operator's	M3678

* Not Shown; S/T = see Table.

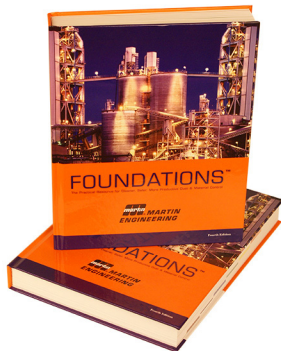
Part Number	Dimension "A"	Dimension "B"	Quantity 14,15,16	Part Number Item 2	Part Number Item 12	Part Number Item 13
34840-30SD	30.50 [775]	14.25 [362]	4	34838-3024	33965-30	33966-30
34840-36SD	36.50 [927]	17.25 [438]	5	34838-3624	33965-36	33966-36
34840-42SD	42.50 [1080]	20.25 [514]	6	34838-4224	33965-42	33966-42
34840-48SD	48.50 [1232]	21.25 [591]	7	34838-4824	33965-48	33966-48
34840-54SD	54.50 [1384]	26.25 [667]	8	34838-5424	33965-54	33966-54
34840-60SD	60.50 [1537]	29.25 [743]	9	34838-6024	33965-60	33966-60
34840-72SD	72.50 [1842]	35.25 [895]	11	34838-7224	33965-72	33966-72
34840-84SD	84.50 [2146]	41.25 [1048]	13	34838-8424	33965-84	33966-84
34840-96SD	96.50 [2451]	47.25 [1200]	15	34838-9624	33965-96	33966-96

Figure 4. Martin® Static Dissipating Dust Bag Assembly ø24.00 x 72.00, 34840-XXSD (sheet 1 of 2)

Notes

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For nearly 20 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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